UNITED NATIONS UNIVERSITY
UNU-WIDER

WIDER Working Paper 2020/111

Is there a gender bias in intergenerational mobility?

Evidence from Cameroon

Rose Fontep[1] and Kunal Sen[2]

September 2020

United Nations University World Institute for Development Economics Research
wider.unu.edu

Abstract: We examine the intergenerational mobility of women relative to men, using paired mother-daughter and father-son data on occupation and education for Cameroon. We find that both in occupation and education, intergenerational mobility is higher for sons than for daughters. The intergenerational transmission of occupation is particularly strong for women in low-paid occupations as compared with men. In the case of educational mobility, the effect of the mother's education on the daughter's education is strongest at the post-primary levels. Our results suggest that there is strong gender bias in intergenerational mobility, and that public policies need to alleviate the inequality of opportunity faced by women relative to men. The results for both occupational mobility and educational mobility do not substantially change when we control for circumstances in which both daughters and sons are born to the same parents, or in which children and parents are living in the same household.

Key words: occupational mobility, educational mobility, intergenerational mobility, gender, Cameroon

JEL classification: J6, J62, O12

Acknowledgements: We thank UNU-WIDER Summer School lecturers and participants for commenting on this paper when it was still a research proposal. The usual disclaimer applies.

[1] University of Yaoundé II, Yaoundé, Cameroon; [2] UNU-WIDER, Helsinki, Finland, and University of Manchester, Manchester, United Kingdom, corresponding author: sen@wider.unu.edu

This study has been prepared within the UNU-WIDER project Social mobility in the Global South—concepts, measures, and determinants.

ISSN 1798-7237 ISBN 978-92-9256-868-9

https://doi.org/10.35188/UNU-WIDER/2020/868-9

Typescript prepared by Luke Finley.

Katajanokanlaituri 6 B, 00160 Helsinki, Finland

1 Introduction

Intergenerational mobility in economic and social status is an important measure of the progress societies make in achieving equality of opportunity. An emerging literature has studied intergenerational mobility in developing countries, and the evidence suggests that mobility is lower in poorer countries than in richer countries (Iversen et al. 2017; Torche 2015; World Bank 2018b). However, much of this literature has studied father–son mobility in incomes, education, and occupation, and there is limited knowledge about the prospects for girls to achieve higher economic and social status as compared with their mothers, or in relation to their male siblings. In this paper, we examine whether there is a gender bias in intergenerational educational and occupational mobility for a low-income country in Sub-Saharan Africa, Cameroon.

In the past several decades, more girls in Sub-Saharan Africa have been in school than ever before, with the gender ratio in mean years of schooling increasing from 58 per cent in 1965 to 80 per cent in 2010 (World Bank 2018a).[1] In addition, female labour force participation in Sub-Saharan Africa is the highest in the developing world.[2] At the same time, there is strong gender bias in economic and social outcomes in Sub-Saharan Africa, with girls more likely to drop out of school than boys, and more women than men in vulnerable employment (ILO 2018). Whether the gender bias evident in schooling and labour market outcomes manifests itself in more limited possibilities for educational and occupational mobility across generations for women than for men is an important policy question and the focus of this paper.

The literature on intergenerational mobility in Africa is sparse, with a lack of availability of longitudinal data on the educational levels, income, and occupations of parents as compared with their children. Alesina et al. (2019) examine intergenerational mobility in educational attainment for 26 Sub-Saharan African countries using individual samples extracted from census data. They find that there is large variation within and across countries in intergenerational mobility and that intergenerational mobility is higher in countries that were better developed at the time of independence. Bossuroy and Cogneau (2013) study occupational mobility in five Sub-Saharan African countries, with more mobility in Ghana and Uganda, more persistence in Côte d'Ivoire and Guinea, and strong persistence in Madagascar.

There is also a limited literature on mother–daughter mobility which shows a stronger intergenerational educational association among women than men (for India, see Emran and Shilpi 2015; for China, see Emran and Sun 2015; for nine Sub-Saharan African countries, see Azomahou and Yitbarek 2016; for Brazil, see Leone 2017; for 18 Latin American countries, see Neidhöfer et al. 2019). A similar finding is obtained for occupational mobility by Emran and Shilpi (2019). However, the studies on China and India also show greater intergenerational mobility for women over time, and increasing convergence to the mobility rates of males. There is less knowledge of what is happening to the intergenerational mobility rates of women as compared with men in Sub-Saharan Africa.

[1] The gender ratio is the female-to-male ratio of average years of schooling, expressed as a percentage. See GDCL (2016).

[2] In 2019, the female labour force participation rate was 44 per cent in Sub-Saharan Africa, 43 per cent in East Asia, 40 per cent in Latin America, 17 per cent in South Asia, and 13 per cent in the Middle East and North Africa (World Bank 2020).

The focus of our study is on educational and occupational mobility, and not income mobility. In the context of developing countries, the measurement of income is problematic, given the difficulty of obtaining reliable income estimates in economies with large agrarian and informal sectors (Iversen et al. 2017). Educational levels and occupational status are more reliably measured through the use of appropriate recall questions in labour force surveys on the educational level and occupations of parents. Further, educational attainment is an important determinant of permanent income, as well as having intrinsic value, predicting a range of non-pecuniary outcomes including health, longevity, fertility, marriage and parenting, crime, and political participation (Torche 2019). Occupational position is an excellent indicator of an individual's 'life chances': occupations are associated not only with current income and material prosperity but also with the security of that income, as well as with a wider range of psychological, social, and demographic outcomes such as fertility and mortality (Heath and Zhao 2019).

The relatively sparse literature on intergenerational mobility for women as compared with men in developing countries can be explained by the fact that most labour force surveys which have retrospective questions about parent's main occupation or last educational level are asked to the head of the household (usually a man) and collect information about the father's occupation or education: see, for example, the Indian Human Development Survey, which has been widely used in the study of social mobility in developing countries (Azam and Bhatt 2015; Iversen et al. 2017). In this paper, we use a dataset for Cameroon that asks questions on the occupation and education of both the mothers and the fathers of adult men and women in the household.[3] Using data for 7,318 mother-daughter pairs and 7,671 father-son pairs from the 2010 Cameroonian Labour Force Survey, and using a modified difference-in-differences (DID) strategy, we find that the intergenerational persistence of occupation for mother-daughter pairs is higher by 0.2 percentage points (pp), on average, than for father-son pairs. In the case of educational mobility, our results suggest a similar overall impact, with the intergenerational persistence of education higher among women than men. Our findings suggest that there is a clear gender bias against girls in intergenerational mobility in Cameroon.

When we examine the degree of persistence disaggregated by occupations and educational levels using ordered logit regressions, we find that intergenerational transmissions of socio-professional categories (SPCs) mainly operate in the lowest SPC (that is, contributing family workers) in the country—more so for women (0.128 pp) than for men (0.019 pp). Conversely, intergenerational transmissions of education mainly operate at the post-primary education level for both genders. The ordered logit analysis also displays the possibility of upward occupational and educational mobility in Cameroon—more so for the father-son pairs than for the mother-daughter pairs. The results do not substantially change when we control for circumstances in which both daughter and son are born to the same parents, or in which children and parents are living in the same household.

The rest of the paper is organized as follows. Section 2 provides a simple theoretical framework to motivate the empirics. Section 3 presents the empirical strategy. Section 4 presents the sources of the data and descriptive statistics. Section 5 presents and discusses the results, while Section 6 concludes.

[3] Question TP2 of the survey asks 'What was the socio-professional category of your father/mother when you were aged 15?' and TP4 asks 'What is the last class [i.e. highest educational level] completed by him/her?'

2 Theoretical framework

In this section, we sketch out the theoretical framework that we use to motivate the empirics. Following Becker and Tomes' (1986) classic model of intergenerational transmissions, we make two main simplifying assumptions:

- H1: the family contains one mother (father) of generation $t-1$ and one daughter (son) of generation t;
- H2: the mother (father) cannot borrow against the daughter's (son's) prospective earnings and does not bequeath financial assets to her (him).

Thus, the budget constraint in the first period allows the mother (father) to allocate her (his) lifetime endowment e_{t-1} between her (his) own consumption C_{t-1} and investment I_{t-1} in her daughter's (his son's) human capital. Formally, the budget constraint is given as $e_{t-1} = C_{t-1} = I_{t-1}$. This allows us to assume that the daughter's (son's) endowment e_t in the second period is positively correlated with her (his) parents' endowment $(\frac{\partial e_t}{\partial e_{t-1}} > 0)$. Here, we present a simplified version of the standard model, derived from Solon (2004, 2018).

Suppose, for instance, that the family investment behaviour aims to maximize the following Cobb-Douglas utility function subject to the above-mentioned budget constraint:

$$\begin{cases} Max\ U = (1-\alpha)\log C_{t-1} + \alpha e_t \\ \quad {}^{S}/_{t}\ \ y_{t-1} = C_{t-1} + I_{t-1} \end{cases} \quad (1)$$

Where $\alpha \in [0,1]$ and represents the altruism parameter. It measures the mother's (father's) taste for her daughter's (his son's) endowments e_t relative to the mother's (father's) current consumption C_{t-1}. In our framework, we take the parameter α as a proxy for social norms around gender in a society. If a society has a strong bias against girls relative to boys, the parameter will be higher for boys than for girls.

So, the endowment-generating function for the daughter (son) can be expressed as:

$$e_t = \mu + \rho H_t \quad (2)$$

where μ is the intercept for the t generation and ρ the returns to the daughter's (son's) human capital H_t in the labour market.

We assume that daughters' (sons') endowments can emerge from different sources, including parents' and grandparents' characteristics (Solon 2018), the reputation and 'connections' of their families (Piraino 2020), learning, skills (Nybom 2018), and other 'family commodities' acquired through belonging to a particular family culture (Becker and Tomes 1979: 1158). The daughter's (son's) human capital specified as depending on these endowed attributes is given by:

$$H = \delta \ln I_{t-1} + \theta_t) \quad (3)$$

Where δ represents the 'effectiveness' of mother–daughter (father–son) investment in generating human capital. By substituting (3) into (2), we obtain:

$$e_t = \mu + \rho[\delta \ln(I_{t-1}) + \theta_t] = \mu + \rho\delta \ln(I_{t-1}) + \rho\theta_t \quad (4)$$

For Becker and Tomes (1979), a key assumption in this model is that θ_t is independent from parental investments.

Therefore, the parent's utility function can be rewritten as:

$$U = (1-\alpha)\log(e_{t-1} - I_{t-1}) + \alpha[\mu + \rho\delta \ln(I_{t-1}) + \rho\theta_t] = (1-\alpha)\log(e_{t-1} - I_{t-1}) + \alpha\mu + \alpha\rho\delta \ln(I_{t-1}) + \alpha\theta e_t \quad (5)$$

The first-order condition for maximizing this utility with respect to parental investment in human capital is:

$$\frac{\partial U}{\partial I_{t-1}} = 0 \Leftrightarrow -\frac{(1-\alpha)}{e_{t-1}-I_{t-1}} + \frac{\rho\delta}{I_{to1}} = 0 \quad (6)$$

Solving for the optimal investment (I^*_{t-1}) in the daughter's (son) human capital yields:

$$I^*_{t-1} = \frac{\alpha\rho\delta}{1-\alpha(1-\rho\delta)} y_{t-1} \quad (7)$$

This optimal value shows that investment in generating the human capital of the next generation is positively associated with the investment effectiveness (δ), the parameter (α) and the returns to human capital (ρ). From Equation 7, it is possible to state that there are three reasons why intergenerational mobility may be weaker for women relative to men in a particular society:

1. parents may be more inclined to invest in the education of their sons rather than their daughters if they perceive the payoff for investing in the son's human capital to be higher in the society;
2. parental investments in the son's human capital may be higher in societies where social norms are characterized by a strong bias against girls;
3. the effectiveness of educational investment may differ between girls and boys if girls are sent to poorer-quality schools than boys.

The simple model developed above has been widely used in the literature to rationalize the intergenerational transmissions of economic status, such as permanent income, education, or occupation. It operates through a first-order auto-regressive process expressed by Solon (2018) as:

$$e_t = k + he_{t-1} + \nu_t \quad (8)$$

This is easily obtained by substituting the optimal investment amount of Equation 7 into the child's occupation function (Equation 4) where $k = \mu + \rho\delta \ln\left(\frac{\alpha\rho\delta}{1-\alpha(1-\rho\delta)} y_{t-1}\right)$. In Equation 8, ν_t represents a white-noise innovation, and $h = \rho\delta$ the heritability coefficient $(h \epsilon [0,1])$. In our empirical strategy (discussed below), we estimate a reduced form version of Equation 8 using ordinary least squares (OLS).

3 Empirical strategy

Since our interest is understanding whether the intergenerational mobility of girls is different than that of boys, we estimate a model of relative mobility (as in Fields 2000) which allows us to test for this explicitly in the estimating equation. Equation 9 below describes the dynastic evolution of economic status across generations:

$$O_{d/s} = \beta_0 + \beta_1 O_{m/f} + \beta_2 D_{d/m} + \beta_3 D_{d/m} * O_{m/f} + X_i \Pi + \varepsilon_i \quad (9)$$

where $O_{d/s}$ is the occupational or educational status of daughter or son, subscripts m and f refer to mother and father, respectively, D is a dummy variable which takes the value of 1 when the pair is mother-daughter and zero for father-son, and X is a vector of controls.

The coefficient β_1 captures the intergenerational persistence of the child's occupational or educational outcome relative to that of the parent. The coefficient β_2 captures the difference in the occupational ranking or level of education of the daughter relative to the son. A positive and significant coefficient signifies that the daughter's occupational ranking/educational level is higher than that of the son. The intergenerational persistence[4] of occupational status (or educational level) for girls relative to boys is measured by the slope β_3, the parameter of interest. Equation 9 is a modified version of a DID model, and a positive and significant coefficient β_3 would imply lower mobility for girls relative to boys, so that the daughter's labour market and educational outcomes are more closely tied to parental characteristics than the son's.

Since the child's decision to participate in the labour market or to attend a school or university is endogenous, to correct for the sample selection bias in the labour market we use the traditional Heckman (1979) two-stage estimation strategy to calculate the inverse Mills ratio, which is then included in Equation 9.

Our interest is in whether daughters and sons are able to achieve better occupational status and higher educational levels than their mothers and fathers. We measure occupational status and educational level as ordinal variables, where we rank occupations by their earnings potential and educational level as a set of ordered categories that capture important educational milestones (Torche 2019). Therefore, our dependent variables are ordinal measures of occupational ranking and educational levels, from 1 to 5 for both occupation and education, with higher values indicating higher occupational status or educational level. We estimate Equation 9 using OLS. Our estimates also include robust standard errors to control for unobserved heterogeneity.

A limitation of OLS when we have categorical measures as our dependent variables is that it does not allow us to assess whether intergenerational persistence in education or occupation is more evident in some occupations or educational levels than others. However, intergenerational persistence at higher levels of occupational ranking and educational levels has different policy implications to persistence at lower levels of occupational ranking and educational levels. For example, if the daughter is more likely to be university-educated if the mother is also university-educated, intergenerational persistence in mother-daughter pairs is preferable to in a case where the mother and daughter are both illiterate. Therefore, we estimate the following equation using ordered logistic models:

$$O_{d/s} = \partial_1 + \partial_2 O_{m/f} + X_i \Pi + \varepsilon_i \quad (10)$$

We estimate Equation 10 separately for mother-daughter and father-son pairs. As before, X is a vector of controls.

Our analysis of mother–daughter (father–son) occupational immobility uses SPCs in five categories in line with the Cameroon National Institute of Statistics' categorization of occupational

[4] In this case, $(1 - \beta_3)$ is usually taken as the measure of mobility.

status. These are: (1) Professional, (2) Skilled Worker, (3) Own -Account Worker and Unskilled Worker, (4) Employer, and (5) Contributing Family Worker (see Table 2).

To look at the long-term variance in the model, we calculate the '*family background multiplier*' (see Appendix C). For simplicity, suppose the controls X are ignored. So, the expression for long-term variance of children's economic status is as follows:

$$\sigma_{o_c}^2 = \frac{\sigma_\varepsilon^2}{1-(\beta_3)^2} \tag{11}$$

Here, $\frac{1}{1-(\beta_3)^2}$ is the family background multiplier used to capture how exogenous shocks (σ_ε^2) such as the commodity prices shock in Sub-Saharan African countries, and '*market luck*' (Becker and Tomes 1979) can amplify the effects of the variance. Consequently, in a perfectly immobile (mobile) society, the multiplier equals 0 (1), implying that family background plays a central role (does not play any role: only exogenous shocks matter) in determining daughter's/son's occupation.

We also include a range of control variables to rule out the possibility that the association of interest is primarily driven by background factors or environmental influences. We use education as the main vehicle of intergenerational transmission of occupation because information about mother's/fathers' education when their child was 15 years old is retrospectively reported in our dataset. In the literature, education is measured as the number of years of schooling completed or the attainment of specific qualifications (secondary school certificate or college degree).We use school certificates (no education, primary, junior secondary, senior secondary, and university) because they are less likely to suffer from endogeneity concerns. Indeed, most of the variance in educational attainment is not tied to social origins, and questions about educational attainment are usually not perceived as sensitive by survey respondents (Torche 2019). Likewise, measurement errors are negligible because certificates have good recall, refusal, and reliability properties.

To control for quality of schooling, we include information on whether the child has attended public or private schooling. The quality of schooling may constitute a powerful avenue for intergenerational persistence, even in contexts where primary educational attainment is universal (as has been the case in Cameroon for two decades) (Torche 2019).

Since neighbourhood effects have been found to be important in studies of social mobility in developing countries, a set of variables located at household and individual level is included (see Alesina et al. 2019; Iversen et al. 2017). The first, as commonly used in the literature, distinguishes urban from rural areas. To account for specificities related to the administrative division[5] of Cameroon, we group country regions into five principal blocs: (1) Northern area (Far North, North, and Adamaoua), dominated by Muslims with breeding livestock the main activity; (2) Southern area (South and East), where autochthonous communities live on hunting and picking (fruit, vegetables, berries, mushrooms, etc.); (3) Central area (Centre—outside Yaoundé—and West), where agriculture is the main activity; (4) Coastal area (Littoral—outside Douala—South-West, and North-West), open to the ocean and dominated mainly by fishing and agriculture; and finally (5) large cities (Yaoundé and Douala), the two biggest metropoles of the country, where most business takes place. These two cities have been considered separately from their regions

[5] The country has ten regions: Far North, North, Adamaoua, Centre, Littoral, West, North-West, South-West, South, and East.

because they account for more than two million inhabitants each and one-third of the gross domestic product (the contribution of the tertiary sector especially) is drawn from there.

Social capital which may be transferred from one generation to another and enhance returns to human capital investment can also be a determinant of intergenerational mobility (Rungo and Pena-López 2019). To incorporate social capital, we follow Montgomery (1991) and distinguish strong ties (family members) from weak links (colleagues and friends).

To account for group effects suggested by Solon (2018), we use the individual's place of birth and religion. The first controls for the residential location by distinguishing the percentage of stayers in and movers from their places of birth. The inclusion of religion controls for cohabitation and regional effects, since the Northern part of Cameroon possess the highest share of Muslims, who account for an important proportion of households that include extended families.

Other controls variables include: (1) socio-demographic characteristics, including age (between 15 and 64 according to the ILO), age squared, mother's/father's background (education, employment type and category), and marital status among others; (2) household characteristics (gender of the household head) and (3) labour market characteristics (matching between training received and employment held, social protection coverage, years of working experience).

4 Data and descriptive statistics

In this section, we discuss the data and present some descriptive statistics.

4.1 Data

The data are drawn from the second Cameroon Labour Force Survey (EESI 2, 2010; see Cameroon National Institute of Statistics 2021), because the first wave (EESI 1, 2005) did not have information on mothers' occupational status. Data were collected between 16 May and 17 July 2010 by the Cameroon National Institute of Statistics (INS) with the financial and technical support of the Cameroon government and its development partners (the International Labour Organization, the European Commission, France's National Institute of Statistics and Economic Studies, the Economic and Statistical Observatory for Sub-Saharan Africa).

The main objective of EESI 2 was to provide indicators for the follow-up and evaluation of the evolution of employment and the informal sector in Cameroon, as compared with the year 2005. Using the updated mapping of the third General Census of Population and Housing, EESI 2 randomly selected a sample of 8,160 households stratified according to the ten regions of Cameroon, with the cities of Douala and Yaoundé each considered as a separate survey region. Out of these households previewed by the sample, 7,932 were ultimately identified and interviewed. With the average size of households in the country estimated to be 4.4 persons, the survey was thus concerned with almost 34,900 individuals aged ten and above.

However, our analysis focuses on individuals aged between 15 and 64, since this is the legal working age recommended by the International Labour Organization (ILO). This restricted our sample to 18,614 individuals. When we focus on the active population only, our sample decreases to 14,625 individuals. In this restricted sample, however, almost 2,000 individuals did not give information on their parents' labour market characteristics.

The eighth section of the survey has a range of retrospective questions on parents' education and education when the child was aged 15. The first question of the section (TP1) asks, for example,

'Was your father/mother working when you were 15 years old?' TP2 asks 'What was the socio-professional category of your father/mother?'[6] In terms of education, the fifth question of the section is 'What is the last class completed by him/her?' Information is given for mother and father separately, making it easy to pair the mother's and father's occupation and education with children's education and occupation by gender. We established 7,318 mother-daughter pairs and 7,671 father-son pairs[7] from our data. This represents on average 49 per cent and 51 per cent of the sample respectively.

4.2 Descriptive statistics

The socio-demographic characteristics of the labour force in Cameroon as reported in Table 1 show that, in 2010, the average age of individuals in the labour force is 31. This is in line with statistics on youth employment, which report that more than the half of the labour force in Africa belongs in the 25–39 age group (Filmer and Fox 2014; ILO 2020). Overall, men are more educated and in better-ranking occupations than women (Table 1).

Although there are more women (51.8 per cent) than men (48.2 per cent) in our dataset, men are more represented in all employment categories except for informal self-employment, where women dominate. Women are twice as likely to be in vulnerable employment: they account for more than the half of own-account workers (54.7 per cent) and more than the twice the male share in the lowest-ranked SPC (including contributing family workers and apprentices). This is line with other studies for Sub-Saharan Africa, which show that women are more likely than men to be in lower-tier informal work (Sen et al. 2019). Women are more likely than men to be illiterate (21.5 per cent versus 10.9 per cent) and less likely to be university educated (7.5 per cent versus 12.3 per cent). Table 1 also shows that women are more likely than men to be working in the agricultural sector (44.8 per cent versus 33.5 per cent), and slightly more likely to be living in rural areas (56.9 per cent versus 59.6 per cent).

Table 2 displays that in Cameroon, women earn less than men. Moreover, women's average monthly earnings (XAF32,000, approx. US$65) were less than the average monthly earnings for all workers (XAF 50,716, approx. $100.5) in 2010, the year of the survey. However, they appear to have been greater than the country's minimum wage[8] (XAF28,276, approx. $57) in 2010, mothers' and daughters' earnings are less than the country's current (since 2014) minimum wage (XAF36,270, approx. $70). The table also shows that 'professional' is the SPC with the highest incomes, followed by 'employer', 'skilled worker', 'unskilled worker', and 'own-account worker', with 'contributing family worker' being the worst-paid category. This ranking of SPCs by earnings justifies the ordering of occupations that we use in our empirical strategy.

[6] Other questions are related to the type of firm (public administration, small and medium-sized enterprises, etc.) and the sector of activity (agriculture, manufacturing, etc.) where parents worked.

[7] If we consider the working-age population (15–64 years old), the numbers drop to 6,939 mother-daughter pairs (48.8% of the sample) and 7,279 father-son pairs (51.2% of the sample).

[8] For 40 working hours per week, the monthly minimum wage was XAF23,514 (US$47) in 2007, increasing to XAF28,276 (US$57) in 2008, and finally reaching XAF36,270 (US$70) as of 14 July 2014.

Table 1: Average socio-demographic characteristics of the labour force by gender

Category		Population	Male	Female
Age (in years)		31.1	31.3	30.9
Socio-professional category	Employer	3.50	4.93	1.88
	Professional	6.99	8.92	4.80
	Unskilled worker	6.66	9.60	3.31
	Skilled worker	14.58	20.36	8.00
	Own-account worker	48.57	43.18	54.70
	Contributing family worker, apprentice, no-ranked worker, etc.	19.70	13.01	27.31
Total		100	100	100
Education	None	16.40	10.95	21.47
	Primary	28.47	27.70	29.20
	Junior secondary	27.99	28.91	27.13
	Senior secondary	17.33	20.17	14.68
	University	9.82	12.27	7.53
Total		100	100	100
Activity sector	Agricultural	38.77	33.50	44.76
	Manufacturing	15.85	16.45	15.17
	Trade	13.87	12.94	14.92
	Services	31.51	37.11	25.15
Total		100	100	100
Residential area	Urban	58.21	59.63	56.89
	Rural	41.79	40.37	43.11
Total		100	100	100

Source: authors' construction based on EESI 2.

Table 2: Average monthly earnings, parents and children, by gender and SPC

		Income in XAF			
	Population	Parents		Children	
		Father	Mother	Son	Daughter
Average	50,7129	65,860	32,679	66,477	32, 789
Socio-professional categories					
Professional	182,605	100,371	65,885	198,325	149,381
Skilled worker	70,667	93,955	59,293	73,115	63,582
Unskilled worker	39,710	62,164	64,122	42,620	30,125
Employer	142,051	100,344	66,462	158,684	92,443
Own-account worker	40,825	57,422	30,433	50,573	32,076
Contributing family worker*	996	43,293	19,361	1,126	926

Note: XAF = Franc of the Financial Community of Africa or 'CFA franc', the local currency (FCFA); US$1 = approx. XAF580; * includes apprentices and no-ranked workers (those whose work cannot be classified in any other SPC).

Source: authors' construction based on EESI 2.

We next present the educational mobility matrices, for mother-daughter pairs in Table 3 and father-son pairs in Appendix A1. The education mobility matrix constructed here captures the

association between mothers' and daughters' education net of any change in the distribution of schooling across generations. As argued by Torche (2019), this constitutes an accurate way for studies of relative mobility or intergenerational transmissions to capture links between parents' and children's education. Education is thus operationalized through a set of ordered categories capturing educational milestones, the first category constituting no schooling, the others being completing primary and secondary schooling and university degrees.

Table 3: Joint distribution of mothers' and daughters' education

Daughters	No education	Primary	Junior secondary	Senior secondary	University	Total
Mothers						
No education	54.90	29.50	11.17	3.25	1.18	100
Primary	1.86	27.61	42.07	20.42	8.04	100
Junior secondary	0.22	9.98	**42.95**	31.67	15.18	100
Senior secondary	0.00	4.86	24.86	**45.41**	24.86	100
University	0.00	1.79	25.00	35.71	37.50	100

Source: authors' construction based on EESI 2.

Table 3 shows that Cameroon has experienced upward mobility in women's education. However, there is a relative lack of mobility for mother-daughter pairs where the mother had no education—54.9 per cent of daughters of mothers with no education were also not educated. A similar pattern exists for mother-daughter pairs with junior and secondary education. In contrast, over 70 per cent of daughters with mothers with primary education progressed to higher levels of education. In the father–son educational mobility matrix, intergenerational persistence of education operates through secondary education only (Appendix A1).

With respect to the occupational mobility matrix for mothers and daughters (Table 4), the correlation between mothers' and daughters' SPCs is higher among own-account workers and contributing family workers (among others). Indeed, Table 4 shows that, for 100 mothers engaged as own-account workers, around 61 daughters are also own-account workers. In the father–son correlation, however, transmissions are perceived among both wage-earners and own-account workers. For wage-earners, Appendix A2 shows that for fathers who are skilled workers, 32 per cent of their sons are also skilled workers, whereas the proportion declines to 26 per cent if both father and son are professionals. In the self-employment category, 43 per cent of sons are involved in vulnerable employment as their fathers were (51 per cent in own-account work and 35 per cent as contributing family workers).

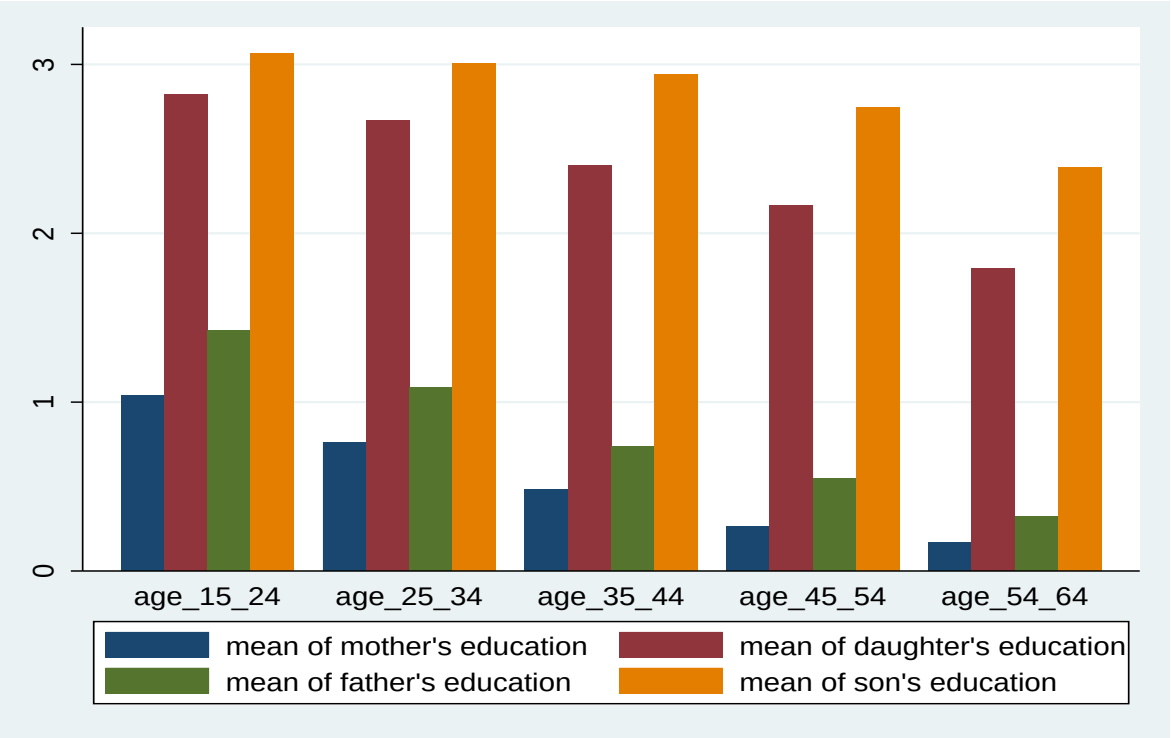
Table 4: Joint distribution of mothers' and daughters' socio-professional categories

Daughters	Wage-earners			Self-employed		Contributing family worker	Total
	Professional	Skilled worker	Unskilled worker	Employer	Own-account worker		
Mothers							
Professional	26.32	17.89	4.21	1.05	33.68	16.84	100
Skilled worker	15.91	27.27	6.06	1.52	30.30	18.94	100
Unskilled worker	8.33	14.58	16.67	6.25	41.67	12.50	100
Employer	19.05	4.76	14.29	4.76	38.10	19.05	100
Own-account worker	3.69	6.87	3.36	1.98	**60.38**	23.73	100
Contributing family worker	1.57	2.36	0.79	1.14	42.78	51.36	100

Source: authors' construction based on EESI 2.

In line with Table 3, Figure 1 supports the existence of upward educational mobility in Cameroon, regardless of the gender and age group considered. Sons' mobility appears always greater than that of girls. This may be the result of the dominance of fathers' education over that of mothers. The graph also shows that educational mobility is likely to decrease with age. However, the level of educational attainment is also likely to decrease with age. In the 15–24 age group, girls whose parents have the First School Leaving Certificate (FSLC) or less have at least completed junior secondary school, while boys have completed senior secondary. But in the 54–64 age group, parents who are not educated have girls who completed primary schooling only and boys who completed junior secondary schooling only.

Figure 1: Education level correlation between children and parents according to age of the child

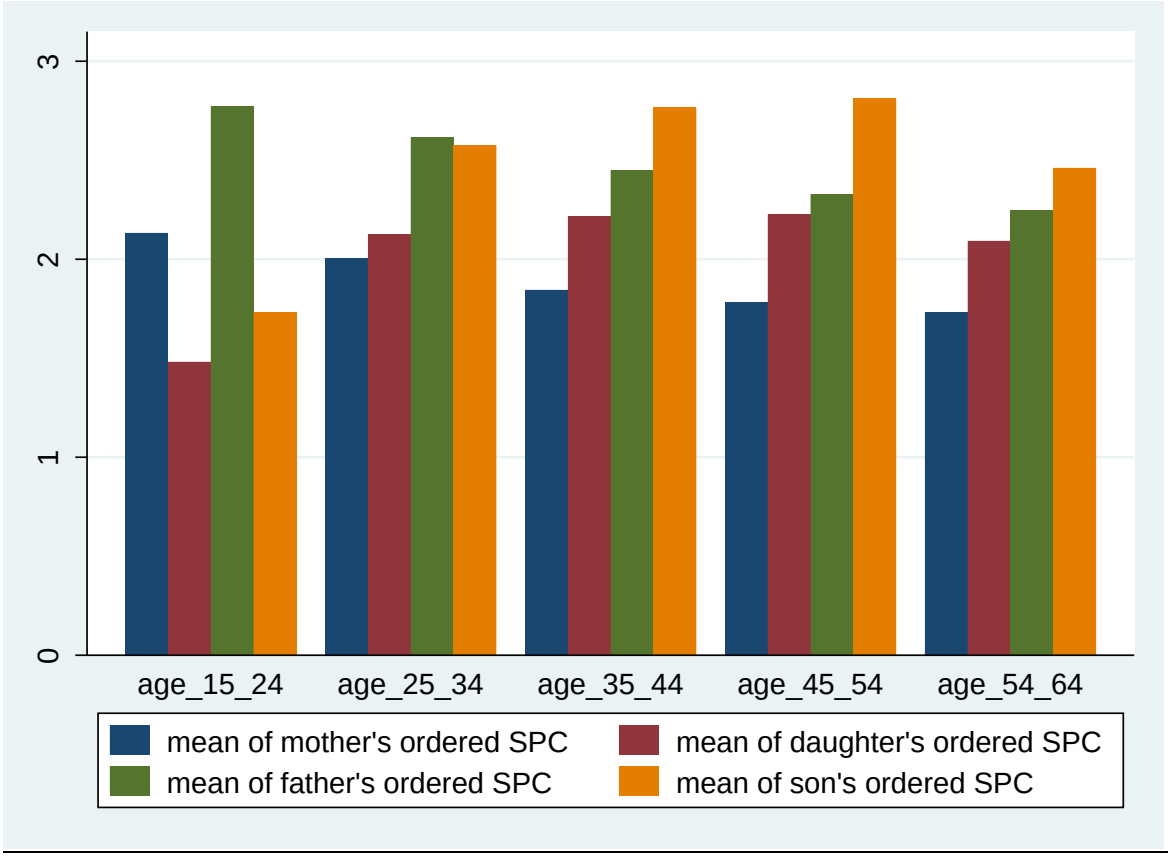


Note: the vertical axis measures educational attainment: [0,1] refers to 'No education', [1,2] 'Primary education', [2,3] 'Junior secondary education', and [3,4] 'Senior secondary education'.

Source: authors' calculation using EESI 2, 2010.

As seen in Figure 1 in relation to educational mobility, Figure 2 shows that there is overall upward occupational mobility in all age groups and both genders, apart from for the youngest population, who experience relative downward mobility. As in case of education, fathers' and sons' occupations are always at a higher level than those of mothers and daughters. In the 15–24 age group, mothers and fathers who are skilled workers have daughters and sons who fall under the lower SPCs of unskilled workers and own-account workers. This is not the case with children of other age groups, where the child has a higher occupational ranking than the parent, irrespective of the gender of the child.

Figure 2: Occupational status correlation between children and parents according to age of the child



Note: the vertical axis measures the SPCs; [0,1] refers to 'contributing family worker' (including apprentices and no-ranked categories), [1,2] 'unskilled-worker' and 'own-account worker', and [2,3] 'skilled-worker'.

Source: authors' calculation using EESI 2, 2010.

5 Results

5.1 The selection equation

Table 6 gives the results of the sample selection equation related to labour market participation (LMP) in Cameroon. Judging from the coefficient of the inverse Mills ratio at the 1 per cent significance level, Heckman's approach corrects any potential sample selection bias in our estimates. Moreover, the very high Wald statistic confirms the correction of any correlation between the residuals of the estimated equations. According to our results, every level of education is positively and significantly correlated with LMP in the country in 2010. The highest contribution is observed at the university level. Being covered by social protection and living in an urban area

also increase LMP. Age appears positively and significantly correlated with LMP, but at a decreasing rate. Furthermore, people with less than five years of working experience are more likely to work.

Table 6: Heckman regression of labour market participation

Variables	Sample selection model
Age	0.058*** (0.003)
Age-squared	−0.001*** (0.0001)
Female	−0.777*** (0.032)
Education (base, No education)	
Primary	0.523*** (0.058)
Junior secondary	0.469*** (0.059)
Senior secondary	0.493*** (0.069)
University	0.824*** (0.109)
Public school	−0.067* (0.433)
Social protection	1.471*** (0.377)
Working experience	
Less than 2 years	−0.1761*** (0.045)
Less than 5 years	0.243*** (0.043)
Less than 10 years	0.028 (0.068)
More than 10 years	−0.291*** (0.043)
Marital status (base, Others*)	
Married	−0.393** (0.089)
Single	−1.102*** (0.092)
Urban area	0.605*** (0.036)
Social capital (base, Others)	
Strong ties	0.037 (0.183)
Weak ties	0.052 (0.176)
Inverse of Mills ratio	0.099***
Constance	−0.501** (0.222)
Wald chi2	3,568.38
Prob. > chi2	0.000
Observations	12,871 (selected 10,432)

Note: * divorced, widowed, etc.; standard deviations in parentheses; ***p<0.01, **p<0.05, *p<0.1.

Source: authors' calculation using EESI 2, 2010.

However, having either less than two years or more than ten years of working experience is negatively correlated with LMP. Likewise, those who went to public schools in Cameroon appear less likely to work in 2010. Single and married individuals are other variables which decrease LMP in the country. Being female also appears negatively and significantly associated with selection into the labour market. Consequently, we test how gender can affect intergenerational transmissions of employment status using a dummy variable (D) which differentiates mother–daughter (D=1) transmissions from the father–son (D=0) transmissions.

5.2 Intergenerational mobility in occupation: a DID OLS analysis

We present estimates of Equation 9 in Table 7 for occupational mobility. We find that the coefficient on the interaction between the parent's occupation and the dummy when the parent-child pair is mother-daughter is positive and significant, suggesting that there is greater intergenerational persistence between mothers' and daughters' occupations than for fathers and sons. Mothers' SPCs have a positive impact on daughters' SPCs. This finding is the same whether

we include controls or not. The intergenerational persistence of occupation is higher by 0.237 percentage points for mother-daughter pairs than for father-son pairs without controls and by 0.189 percentage points with controls. Activity sector and level of education also influence intergenerational transmissions of occupational status in the country. The highest impact is at the university level (1.127 pp), whereas the lowest impacts relate to primary education (0.046) and public school (0.065). Age also has a positive impact on social immobility, but at a decreasing rate.

Table 7: DID OLS regression of occupational mobility

Variables	**Children's ordered SPCs**	
	Without controls	With controls
Parents' characteristics		
Dummy variable (D)	−0.6305*** (0.0263)	−0.3525*** (0.0199)
Parents' SPC	−0.06734** (0.0291)	−0.0372*** (0.0212)
D * Parents' SPC	**0.2369*** (0.0386)**	**0.1894*** (0.0281)**
Parents' education	/	0.0129 (0.0193)
Children's characteristics		
Employment matching training	/	0.4430*** (0.0252)
Activity sector (base, Agriculture)	/	
Manufacturing		0.1749*** (0.0245)
Trade	/	0.1238*** (0.0248)
Services	/	0.2912*** (0.0217)
Public school	/	0.0653*** (0.0197)
Education (base, No education)	/	
Primary		0.0458* (0.0255)
Junior secondary	/	0.0866*** (0.0275)
Senior secondary	/	0.36347*** (0.0366)
University	/	1.1273*** (0.0526)
Administrative areas (base, Southern)	/	
Large cities		−0.0132 (0.0326)
Northern	/	−0.0777*** (0.0280)
Central	/	−0.1198*** (0.0276)
Coastal	/	−0.0647** (0.0291)
Social capital (base, Others)	/	
Weak ties		0.3247*** (0.1117)
Strong ties	/	−0.2789*** (0.1071)
Marital status (base, Others)	/	
Married		−0.0683*** (0.0230)
Single	/	−0.2212*** (0.0294)
Urban area	/	0.0735*** (0.0201)
Age	/	0.0827*** (0.0035)
Age-squared	/	−0.0009*** (0.00004)
Constance	2.4773*** (0.0188)	0.5643*** (0.1299)
Observations	10,528	9,846
R-squared	0.0674	0.5319
F stat.	256.19	394.38
Prob. > F	0.0000	0.0000

Note: robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.

Other factors which have a negative impact on intergeneration transmission of occupation between mothers and daughters include geographical location and marital status. Single girls are,

for example, 0.221 percentage points more likely to be involved in an occupation different to that of their mothers. With respect to social capital, strong ties (family members) increase occupational mobility by 0.279 percentage points, while weak ties (friends and colleagues) decrease it by 0.325 percentage points.

5.3. Intergenerational mobility in education

The impact of mothers' education on that of their daughters is similar to what has been found in the case of occupational mobility (see Table 8). The positive and significant coefficient on the interaction term of parents' education and the mother-daughter pair dummy shows that intergenerational educational mobility among women is lower than for men., regardless of the introduction or not of control variables. In the regression without controls, mothers' education impacts the education of daughters by 0.104 percentage points, and by 0.085 percentage points once the control factors are introduced into the analysis. Overall, activity sector, marital status, and geographical location (both urban area and administrative area, except the Northern region of Cameroon) have a positive and significant impact on female educational immobility in the country.

Among other control variables, parents' SPCs increase educational mobility by 0.142 percentage points, and friends' and colleagues' SPCs increase it by 0.193 percentage points.

Table 8: DID OLS regression of educational mobility

Variables	**Children's education level**	
	Without controls	With controls
Parents' characteristics		
Dummy variable (D)	−0.3924*** (0.0374)	−0.1783*** (0.0398)
Parents' education	−0.7087*** (0.0287)	−0.3145*** (0.0298)
D * Parents' education	**0.1042** (0.0434)**	**0.0848** (0.0429)**
Parents' SPC	/	−0.1423*** (0.0088)
Children characteristics		
Public school	/	0.5049*** (0.0187)
Administrative areas (base, Southern)	/	
Large cities		0.2636*** (0.0407)
Northern	/	−0.5531*** (0.0341)
Central	/	0.1493*** (0.0350)
Coastal	/	0.0272 (0.0354)
Social capital (base, Others)	/	
Weak ties		0.3268*** (0.0958)
Strong ties	/	−0.1933** (0.0909)
Activity sector (base, Agriculture)	/	
Manufacturing		0.0434 (0.0276)
Trade	/	0.1094*** (0.0305)
Services	/	0.1869*** (0.0257)
Marital status (base, Others)	/	
Married		0.3142*** (0.0352)
Single	/	0.1368*** (0.0271)
Urban area	/	0.1880*** (0.0244)
Displaced	/	0.1451*** (0.0178)
Age	/	0.0112*** (0.0027)
Age-squared	/	−0.0002*** (0.00003)
Constance	3.4192*** (0.0238)	2.8567*** (0.1296)
Observations	14,989	10,297

R-squared	0.0760	0.5079
F stat.	452.32	647.62
Prob. > F	0.0000	0.0000

Note: robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.

5.4. Ordered regressions of intergenerational mobility in occupation and education

We next present estimates of Equation 10 to estimate occupational and educational mobility for mother-daughter pairs using ordered logit regressions.

Overall, and regardless of the gender of the child (father–son dynamics are shown in Appendixes A3–A4), our baseline results show that intergenerational transmission of SPCs are most persistent in the lowest SPC. Indeed, daughters whose mothers were contributing family workers are 0.128 percentage points more likely to belong to this lowest socio-professional category. For sons whose fathers were working in this category, their probability of staying there is only 0.019. The occupation correlation between mothers and daughters also appears significant in the SPC of 'employer', but at a decreasing rate. Therefore, daughters whose mothers were employers are 0.007 percentage points less likely to belong to this SPC. Some evidence of upward and downward mobility can also be drawn from the results.

Occupational mobility patterns show that men are better off than women. Sons whose fathers were contributing family workers are, for instance, 0.009 percentage points more likely to experience upward social mobility and become either an unskilled worker or an own-account worker. On the other hand, daughters of employers are 0.139 percentage points more likely to experience downward mobility and belong to the lowest SPC, 'contributing family worker'.

Table 9: Ordered logistic regression of occupational mobility in the mother-daughter pairs

Variables		**Children's ordered SPCs**				
D = 1	Coef.	(1)	(2)	(3)	(4)	(5)
Parents' ordered SPCs						
Contributing family worker*	**−0.9252*** (0.0945)**	**0.1275*** (0.0126)**	**−0.0730*** (0.0076)**	**−0.0287*** (0.0032)**	**−0.0065*** (0.0011)**	**−0.0193*** (0.0021)**
Unskilled worker and own-account worker	−0.3094 (0.2177)	0.0426 (0.0299)	−0.0244 (0.0172)	−0.0095 (0.0067)	−0.0022 (0.0015)	-0.0065 (0.0045)
Skilled worker	0.0315 (0.1257)	−0.0043 (0.0173)	0.0025 (0.0099)	0.0010 (0.0039)	0.0002 (0.0009)	0.0007 (0.0026)
Employer	**−1.0078*** (0.3207)**	**0.1388*** (0.0441)**	**−0.0795*** (0.0255)**	**−0.0312*** (0.0100)**	**−0.0070*** (0.0024)**	**−0.0211*** (0.0070)**
Professional	0.0074 (0.1779)	−0.0010 (0.0245)	0.0006 (0.0140)	0.0002 (0.0055)	0.00005 (0.0012)	0.0002 (0.0037)
Age	0.3170*** (0.0181)	−0.0437*** (0.0022)	0.0250*** (0.0014)	0.0098*** (0.0007)	0.0022*** (0.0003)	0.0070*** (0.0005)
Age-squared	−0.0035*** (0.0002)	0.0005*** (0.00003)	−0.0003 (0.00002)	−0.0001*** (8.97e−1)	−0.00002*** (3.78e-1)	-0.00007*** (5.75e-1)

Note: * including apprentice and no-ranked category. (1) contributing family worker, apprentice, etc., (2) unskilled worker and own-account worker, (3) skilled worker, (4) employer, (5) professional. Observations: 4,474. Wald chi2(34) = 1,821.83. Prob. > F = 0.0000. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.

The ordered logit results concerning educational mobility reveal an overall positive and significant impact of parents' education on that of their children at the post-primary education level, for both

women and men (Table 10). At the senior secondary level, for example, education immobility is 0.052 percentage points on average. At the junior secondary level, intergenerational transmission of education between the mother and her daughter decreases to 0.028 percentage points, compared with 0.020 percentage points between the father and his son. At the university level, the proportion reaches 0.067 percentage points in the case of fathers-sons and falls to only 0.020 percentage points for mothers-daughters.

Table 9 also shows significant possibilities of upward and downward educational mobility. However, this mobility is more significant in the father-son pair (Appendix A4) than in the mother-daughter pair. Children whose parents completed at most primary schooling are likely to attain at least junior secondary education. However, daughters whose mothers had primary education are 0.006 percentage points more likely to attain university level, but the probability is 0.023 percentage points in the father-son pair (Appendix A4).

Table 10: Ordered logistic regression of educational mobility in the mother-daughter pairs

Variables D = 1	Coef.	**Children's education** (1)	(2)	(3)	(4)	(5)
Parents' education: (base, No education)						
Primary	0.2001** (0.0832)	−0.0167** (0.0070)	−0.0093** (0.0038)	**0.0108** (0.0045)**	**0.0095** (0.0039)**	**0.0057** (0.0024)**
Junior secondary	0.5202*** (0.1251)	−0.0435*** (0.0105)	−0.0241*** (0.0057)	**0.0280*** (0.0068)**	**0.0245*** (0.0059)**	**0.0151*** (0.0037)**
Senior secondary	1.0912*** (0.1827)	−0.0914*** (0.0154)	−0.0505*** (0.0085)	**0.0588*** (0.0104)**	**0.0515*** (0.0086)**	**0.0316*** (0.0055)**
University	0.6988** (0.3057)	−0.0585** (0.0256)	−0.0324** (0.0142)	**0.0377** (0.0167)**	**0.0330** (0.0144)**	**0.0203** (0.0089)**
Age	0.0504*** (0.0169)	−0.0042*** (0.0014)	−0.0023*** (0.0008)	0.0027*** (0.0009)	0.0024*** (0.0008)	0.0015*** (0.0005)
Age-squared	−0.0012*** (0.0002)	0.0001*** (0.00002)	0.0006*** (0.00001)	−0.0001*** (0.00002)	−0.0001*** (0.00001)	−0.00004*** (06.91e-1)

Note: (1) no education, (2) primary, (3) junior secondary, (4) senior secondary, (5) university. Observations: 4,474. Wald chi2(34) = 2,916.93. Prob. > F = 0.0000. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.

5.5 Robustness test

We perform one important robustness test in this section. We see whether mother–daughter mobility is different to father–son mobility when the children are siblings. By doing so, we control for unobserved parental endowments (such as the ability of the parent) that may explain differential investment in girls versus boys.[9]

Occupational mobility

[9] We also perform another robustness test where the sample is restricted to children in the same household. We do not report the results here, but we obtain very similar results to the case where the children are of the same parents.

As obtained in the baseline regression, intergenerational transmissions of women's employment status (results for men in Appendixes A5–A7) remain positive and strongly significant in the SPC of 'contributing family worker'. The social immobility in this category is almost the same in mother-daughter and father-son pairs (0.0193 on average). However, the impact of women's social immobility in the 'employer' category, which was significant in the baseline regression, now becomes not significant. What appears significant here is the employment dynamic for women in the 'skilled worker' and 'professional' SPCs. These categories now witness a positive and significant pattern of social mobility. Indeed, daughters born to mothers who were skilled workers are 0.0195 percentage points more likely to experience upward social mobility and reach the highest SPC of 'professional'. On the other hand, daughters whose mothers were professionals experience downward social mobility: they become 0.042 and 0.025 percentage points more likely to belong to the inferior SPCs of 'unskilled worker' or 'own-account worker' and 'skilled worker' respectively. Some difference can also be noted in the educational mobility when we control for the circumstance where the daughter and the son are born to the same parents.

Table 11: Occupational mobility where daughter and son are born to the same parents, mother-daughter pairs (ordered logistic regression)

Variables		**Children's ordered SPCs**				
Same parents dummy = 1 D = 1	Coef.	(1)	(2)	(3)	(4)	(5)
Parents' ordered SPCs						
Contributing family worker	−1.2513*** (0.3224)	**0.1927***** **(0.0487)**	**−0.0995***** **(0.0254)**	**−0.0597***** **(0.0167)**	−0.0043 (0.0027)	**−0.0292***** **(0.0100)**
Unskilled worker and own-account worker	−0.5208 (0.3529)	0.0802 (0.0542)	−0.0414 (0.0284)	−0.0249 (0.0164)	−0.0018 (0.0015)	−0.0121 (0.0091)
Skilled worker	0.8357*** (0.2241)	**−0.1287***** **(0.0339)**	**0.0664**** **(0.0183)**	**0.0399***** **(0.0117)**	0.0029 (0.0018)	**0.0195***** **(0.0061)**
Employer	0.4105 (0.6420)	−0.0632 (0.0987)	0.0326 (0.0506)	0.0196 (0.0310)	0.0014 (0.0024)	0.0096 (0.0151)
Professional	0.5217* (0.3067)	**−0.0803*** **(0.0466)**	**0.0415*** **(0.0239)**	**0.0249*** **(0.0150)**	0.0018 (0.0015)	0.0122 (0.0075)
Age	0.4920*** (0.0536)	−0.0758*** (0.0069)	0.0391*** (0.0038)	0.0235*** (0.0038)	0.0017*** (0.0010)	0.0115 (0.0027)
Age-squared	−0.0058*** (0.0009)	0.0009*** (0.0001)	−0.0005*** (0.00006)	−0.0003*** (0.00005)	−0.00002*** (0.00001)	−0.00002*** (0.00001)
/cut1	8.1291*** (0.8591)	/	/	/	/	/
/cut2	10.4571*** (0.8893)	/	/	/	/	/
/cut3	12.0293*** (0.9258)	/	/	/	/	/
/cut4	12.2029*** (0.9319)	/	/	/	/	/

Note: (1) contributing family worker, apprentice, etc., (2) unskilled worker and own-account worker, (3) skilled worker (4) employer, (5) professional. Observations: 712. Wald chi2(34) = 1821.83. Prob > F = 0.0000. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.

Educational mobility

Unlike the baseline regression on the education dynamic, there is no significant dynamic at the primary level when children are born to the same parents. Meanwhile, with this control on daughters and sons born from the same parent, the proportion of educational immobility tends to

double. Indeed, the probability of a daughter attaining senior secondary education as her mother did rises from 0.052 (baseline regression) to 0.097, and if they are at university level it rises from 0.020 (baseline regression) to 0.124. In father–son educational immobility (Appendix A6), these probabilities increase from 0.051 (baseline regression) to 0.096 and from 0.068 (baseline regression) to 0.089 respectively. Nonetheless, the proportion of upward and downward educational mobility sometimes increases or decreases when controlling for the daughter and son having been born to the same parent.

Table 12: Educational mobility where daughter and son are born to the same parents, mother-daughter pairs (ordered logistic regression)

Variables		**Children's education**				
Same parents dummy = 1 D = 1	Coef.	(1)	(2)	(3)	(4)	(5)
Parents' education						
No education	−1.7479*** (0.1934)	**0.0790*** (0.0122)**	**0.2072*** (0.0200)**	**0.0695*** (0.0156)**	**−0.2077*** (0.0237)**	**−0.1479*** (0.0192)**
Primary education	−0.1107 (0.1072)	0.0050 (0.0048)	0.0131 (0.0128)	0.0044 (0.0043)	−0.0132 (0.0127)	−0.0094 (0.0091)
Junior secondary education	0.5020*** (0.1128)	**−0.0227*** (0.0056)**	**−0.0595*** (0.0138)**	**−0.0200*** (0.0052)**	**0.0597*** (0.0133)**	**0.0425*** (0.0098)**
Senior secondary education	0.8195*** (0.1358)	**−0.0370*** (0.0072)**	**−0.0971*** (0.0167)**	**−0.0326*** (0.0071)**	**0.0974*** (0.0162)**	**0.0694*** (0.0120)**
University	1.4663*** (0.1571)	**−0.0663*** (0.0097)**	**−0.1738*** (0.0209)**	**−0.0583*** (0.0105)**	**0.1743*** (0.0201)**	**0.1241*** (0.0141)**
Age	0.3489*** (0.0490)	−0.0158*** (0.0025)	−0.0414*** (0.0055)	−0.0139*** (0.0035)	0.0415*** (0.0055)	0.0295*** (0.0049)
Age-squared	−0.0061*** (0.0009)	0.0003*** (0.00005)	0.0007*** (0.0001)	0.0002*** (0.00006)	−0.0007*** (0.0001)	−0.0005*** (0.00009)
/cut1	1.1643*** (0.5826)	/	/	/	/	/
/cut2	3.2629*** (0.5781)	/	/	/	/	/
/cut3	5.0960*** (0.5900)	/	/	/	/	/
/cut4	6.9400*** (0.5980)	/	/	/	/	/

Note: (1) no education, (2) primary education, (3) junior secondary education, (4) senior secondary education, (5) university. Observations: 1,420. Wald chi2(34) = 339.8. Prob > F = 0.0000. Pseudo R2 = 0.0888. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.

The upward educational mobility of men remains greater than that of women; however, women experience a relatively lower level of downward educational mobility than men. The probability of sons whose parents attained junior secondary education moving to the senior secondary and university levels increases from 0.038 (baseline regression) to 0.094 and from 0.036 (baseline regression) to 0.045 respectively. These probabilities increase from 0.025 to 0.060 and from 0.015 to 0.043 respectively in the mother-daughter pairs. But in downward educational mobility, the probability of daughters whose mothers attained the university level falling back to the senior secondary level is 0.174 (compared with 0.033 in the baseline regression), while it reaches 0.187 (compared with 0.071 in the baseline regression) in the father-son pairs.

6 Conclusions

Whether parental circumstances determine the life chances of their children is an important indicator of the inequality of opportunity prevailing in a society. The greater the equality of opportunity in society, the less tied are children's educational levels and occupations to those of their parents. While social mobility has been studied at length in developed countries, the evidence base for developing countries remains sparse. This is particularly the case for mother–daughter mobility as compared with father–son mobility. While there has been a large literature looking at gender gaps in labour market outcomes (such as labour force participation and wage differentials), there is limited evidence on whether there is a gender bias in intergenerational mobility, especially for low-income countries.

In this paper, we have examined the intergenerational mobility of women relative to men, based on paired mother-daughter and father-son data on occupation and education, using a unique dataset for Cameroon. We find that both in occupation and education, intergenerational mobility is higher for sons than for daughters. The intergenerational transmission of occupation is particularly strong for women in low-paid occupations as compared with men. In the case of educational mobility, the effect of the mother's education on the daughter's education is strongest at the post-primary levels. Our results suggest that there is strong gender bias in intergenerational mobility, and that public policies need to alleviate the inequality of opportunity faced by women relative to men.

References

Alesina, A., S. Hohmann, S. Michalopoulos, and E. Papaioannou (2019). 'Intergenerational Mobility in Africa'. NBER Working Paper 25534. Cambridge, MA: National Bureau of Economic Research (NBER). https://doi.org/10.3386/w25534

Azam, M., and V. Bhatt (2015). 'Like Father, Like Son? Intergenerational Education Mobility in India'. *Demography*, 52(6): 1929–59. https://doi.org/10.2139/ssrn.2050742

Azomahou, T.T., and E.A. Yitbarek (2016). 'Intergenerational Education Mobility in Africa: Has Progress Been Inclusive?' Policy Research Working Paper 7865. Washington, DC: World Bank. https://doi.org/10.1596/1813-9450-7843

Becker, G.S., and N. Tomes (1986). 'Human Capital and the Rise and Fall of Families'. *Journal of Labor Economics*, 4(3): S1–S39. https://doi.org/10.1086/298118

Becker, G., and N. Tomes (1979). 'An Equilibrium Theory of the Distribution of Income and Intergenerational Mobility'. *Journal of Political Economy*, 87(6): 1153–89. https://doi.org/10.1086/260831

Bossuroy, T., and D., Cogneau (2013). 'Social Mobility in Five African Countries'. *Review of Income and Wealth*, 59(51): S84–S110. https://doi.org/10.1111/roiw.12037

Cameroon National Institute of Statistics (2010). 'Cameroon Labour Force Survey (EESI 2)'. Yaoundé: Cameroon National Institute of Statistics. Available at: http://www.statistics-cameroon.org/news.php?id=137 (accessed 10 August 2020).

Emran, M.S., and F. Shilpi (2019). 'Economic Approach to Intergenerational Mobility: Measures, Methods, and Challenges in Developing Countries'. WIDER Working Paper 2019/98. Helsinki: UNU-WIDER. https://doi.org/10.35188/UNU-WIDER/2019/734-7

Emran, M.S., and F. Shilpi (2015). 'Gender, Geography, and Generations: Intergenerational Educational Mobility in Post-Reform India'. *World Development*, 72(C): 362–80. https:/doi.org/10.1016/j.worlddev.2015.03.009

Emran, S., and Y. Sun (2015). 'Magical Transition? Intergenerational Educational and Occupational Mobility in Rural China: 1988–2002'. Policy Research Working Paper 7316. Washington, DC: World Bank. https://doi.org/10.2139/ssrn.1891572

Fields, G.S. (2000). 'Income Mobility: Concepts and Measures'. DigitalCommons@ILR. Ithaca, NY: ILR School, Cornell University.

Filmer, D., and L. Fox (2014). *Youth Employment in Sub-Saharan Africa*. Washington, DC: AFD (Agence Française de Développement) and International Bank for Reconstruction and Development/World Bank. https://doi.org/10.1596/978-1-4648-0107-5

GCDL (Global Change Data Lab) (2016). 'Gender Ratios for Mean Years of Schooling, 1870 to 2010'. Available at: https://ourworldindata.org/grapher/gender-ratios-for-mean-years-of-schooling (accessed 1 July 2020).

Heath, A., and Y. Zhao (2019). 'Occupational Mobility in Developing Countries: Conceptual Issues and Empirical Findings'. WIDER Working Paper 2019/96. Helsinki: UNU-WIDER. https://doi.org/10.35188/UNU-WIDER/2019/732-3

Heckman, J.J. (1979). 'Sample Selection Bias as Specification Error'. *Econometrica*, 47(1): 153–61. https://doi.org/10.2307/1912352

ILO (International Labour Organization) (2020). *World Employment and Social Outlook: Trends 2020*. Geneva: ILO.

Iversen,V., A. Krishna, and K. Sen (2017). 'Rags to Riches? Intergenerational Occupational Mobility in India'. *Economic and Political Weekly*, 52(4): 107–14.

Leone, T. (2017). 'The Gender Gap in Intergenerational Mobility: Evidence of Educational Persistence in Brazil'. Discussion Paper 2017/27. Berlin: School of Business and Economics, Freie Universität Berlin.

Montgomery, J.D. (1991). 'Social Networks and Labor-Market Outcomes: Toward an Economic Analysis'. *The American Economic Review*, 81(5): 1408–18.

Neidhöfer, G., J. Serrano, and L. Gasparini (2018). 'Educational Inequality and Intergenerational Mobility in Latin America: A New Database'. *Journal of Development Economics*, 134: 329–49. https://doi.org/10.1016/j.jdeveco.2018.05.016

Nybom, M. (2018), 'Intergenerational Mobility: A Dream Deferred?' ILO Future of Work Research Paper 7. Geneva: ILO.

Piraino, P. (2020). 'Drivers of Mobility'. WIDER Working Paper 2020/06. Helsinki: UNU-WIDER. https://doi.org/10.35188/UNU-WIDER/2020/763-7

Piraino, P. (2015). 'Intergenerational Earnings Mobility and Equality of Opportunity in South Africa' *World Development*, 67(C): 396–405. https://doi.org/10.1016/j.worlddev.2014.10.027

Rungo, P., and A. Pena-Lopez (2019). 'Persistent Inequality and Social Relations: An Intergenerational Model'. *Journal of Mathematical Sociology*, 43(1): 23–39. https://doi.org/10.1080/0022250X.2018.1470511

Sen, K., M. Danquah, and S. Schotte (2019). 'Informal Work in Sub-Saharan Africa: Dead-End or Stepping Stone?' Keynote Lecture, Inclusive Growth in Mozambique (IGM) Conference, Maputo, 11 November.

Solon, G., (2004). 'A Model of Intergenerational Mobility Variation over Time and Place'. In M. Corak (ed.), *Generational Income Mobility in North America and Europe*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511492549.003

Solon, G. (2018). 'What Do We Know So Far about Multigenerational Mobility?' *The Economic Journal*, 128(612): 340–52. https://doi.org/10.1111/ecoj.12495

Solon, G. (1999). 'Intergenerational Mobility in the Labor Market'. In O. Ashenfelter and D. Card (eds), *Handbook of Labor Economics, Volume 3*. Amsterdam: Elsevier/North Holland. https://doi.org/10.1016/S1573-4463(99)03010-2

Solon, G. (1992). 'Intergenerational Income Mobility in the United States'. *The American Economic Review*, 82(3): 393–408.

Torche F. (2019). 'Educational Mobility in Developing Countries'. WIDER Working Paper 2019/88. Helsinki: UNU-WIDER. https://doi.org/10.35188/UNU-WIDER/2019/724-8

World Bank (2018a). *Fair Progress? Economic Mobility across Generations around the World*. Washington, DC: International Bank for Reconstruction and Development/World Bank.

World Bank (2018b). *World Development Report (WDR): Learning to Realize Education Promise*. Washington, DC: International Bank for Reconstruction and Development/World Bank.

World Bank (2020). *World Development Report (WDR): Trading for Development in the Age of Global Value Chains*. Washington, DC: International Bank for Reconstruction and Development/World Bank.

Appendices

A Fathers-sons descriptive statistics and ordered logistic regressions

Fathers-sons descriptive statistics

Table A1: Joint distribution of father-son education

Son	No education	Primary	Junior secondary	Senior secondary	University	Total
Father						
No education	32.21	36.81	18.87	8.09	4.02	100
Primary	2.23	27.02	35.02	22.56	13.18	100
Junior secondary	0.96	11.51	**33. 56**	32.88	21.10	100
Senior secondary	0.62	6.65	27.86	**38.05**	26.82	100
University	0.00	2.86	22.50	38.21	36.43	100

Source: authors' construction based on EESI 2.

Table A2: Joint distribution of father-son socio-professional categories (SPC)

Son	Wage-earners			Self-employed		Contributing family workers	Total
	Professional	Skilled worker	Unskilled worker	Employer	Own-account worker		
Father							
Professional	**25.97**	21.92	9.76	8.29	21.92	12.15	100
Skilled worker	15.45	**32.16**	8.79	5.03	27.14	11.43	100
Unskilled worker	6.37	19.61	21.08	4.90	34.80	13.24	100
Employer	9.38	17.19	10.16	16.41	32969	17.19	100
Own-account worker	6.07	17.47	8.12	4.22	**50.74**	13.37	100
Contributing family workers	10.00	15.00	5.00	10.00	25.00	35.00	100

Source: authors' construction based on EESI 2.

Fathers-sons ordered logistic regressions

Table A3: Ordered logistic regression of occupational mobility in the father-son pair

(1) Contributing family worker
(2) Unskilled worker and own-account worker
(3) Skilled worker
(4) Employer
(5) Professional

Observations: 5,370
Wald chi2(34) = 2566.83
Prob > F = 0.0000

Variables D = 0	**Children's ordered socio-professional categories (SPCs)**					
	Coef.	(1)	(2)	(3)	(4)	(5)
Parents' ordered SPCs:						
Contributing family worker.	-0.2345***	**0.0192*** **	**0.0089*** **	-0.0130***	-0.0037***	-0.0114***
	(0.0759)	**(0.0062)**	**(0.0029)**	(0.0042)	(0.0012)	(0.0037)
Unskilled worker and own-account worker	-0.1747	0.0143	0.0066	-0.0097	-0.0028	-0.0085
	(0.1319)	(0.0108)	(0.0050)	(0.0073)	(0.0021)	(0.0064)
Skilled worker	0.1433	-0.0117	-0.0054	0.0079	0.0023	0.0070
	(0.1181)	(0.0097)	(0.0045)	(0.0065)	(0.0019)	(0.0057)
Employer	0.2817	-0.0231	-0.0107	0.0155	0.0045	0.0137
	(0.2442)	(0.0199)	(0.0093)	(0.0135)	(0.0039)	(0.0119)
Professional	0.2339	-0.0191	-0.0088	0.0129	0.0037	0.0114
	(0.1477)	(0.0121)	(0.0056)	(0.0082)	(0.0024)	(0.0072)
Age	0.3311***	-0.0271***	-0.0125***	0.018***	0.0053***	0.0161***
	(0.0178)	(0.0013)	(0.0010)	(0.0010)	(0.0005)	(0.0009)
Age-squared	-0.0037***	0.0003***	0.0001***	-0.0002***	-0.0001***	-0.0002***
	(0.00022)	(0.00002)	(0.00001)	(0.00001)	(5.36e-1)	(0.00001)
Children education: (base, No education)						
Primary	-0.1130	0.0094	0.0047	-0.0065	-0.0022	-0.0055
	(0.1200)	(0.0099)	(0.0052)	(0.0068)	(0.0023)	(0.0059)
Junior secondary	-0.1487	0.0125	0.0061	-0.0085	-0.0029	-0.0071
	(0.1277)	(.0105)	(0.0054)	(0.0072)	(0.0025)	(0.0062)
Senior secondary	0.1164	-0.0092	-0.0057	0.0067	0.0023	0.0059
	(0.1426)	(0.0113)	(0.0070)	(0.0083)	(0.0029)	(0.0072)
University	1.5524***	-0.0867***	-0.1358***	0.0832***	0.0351***	0.1043***
	(0.1845)	(0.0102)	(0.0187)	(0.0099)	(0.0054)	(0.0133)
Public school	0.2870***	-0.0238***	-0.0104***	0.0159***	0.0045***	0.0138***
	(0.0770)	(0.0065)	(0.0027)	(0.0043)	(0.0013)	(0.0037)
Employment training matching	1.0490***	0.0859***	-0.0398***	0.0579***	0.0170***	0.0510***
	(0.0857)	(0.0072)	(0.0035)	(0.0047)	(0.0017)	(0.0042)
Activity sectors: (base, Agriculture)						
Manufacturing	0.7477***	-0.0624***	-0.0303***	0.0474***	0.0122***	0.0331***
	(0.1106)	(0.0085)	(0.0064)	(0.0076)	(0.0022)	(0.0050)
Trade	0.5907***	-0.0510***	-0.0205***	0.0369***	0.0094***	0.0254***
	(0.1097)	(0.0089)	(0.0053)	(0.0072)	(0.0019)	(0.0049)
Services	0.9230***	-0.0741***	-0.0431***	0.0593***	0.0155***	0.0423***
	(0.0972)	(0.0074)	(0.0061)	(0.0070)	(0.0023)	(0.0044)
Informal sector	-1.392***	0.1140***	0.0528***	-0.0770***	-0.0221***	-0.0677***
	(0.0883)	(0.0079)	(0.0037)	(0.0055)	(0.0017)	(0.0043)
Urban area	0.2250***	-0.0184***	-0.0085**	0.0124* *	0.0035**	0.0109**
	(0.0870)	(0.0071)	(0.0034)	(0.0048)	(0.0014)	(0.0042)
Administrative areas: (base, Southern)						
Large cities (Douala and Yaoundé)	0.0163	-0.0012	-0.0009	0.0010	0.0003	0.0008
	(0.1262)	(0.0093)	(0.0067)	(0.0075)	(0.0022)	(0.0065)
Northern	-0.2085*	0.0162*	0.0097	-0.0121*	-0.0035*	-0.01030*
	(0.1239)	(0.0095)	(0.0061)	(0.0073)	(0.0021)	(0.0062)
Central	-0.5241***	0.0439***	0.0188***	-0.0299***	-0.0082***	-0.0246***
	(0.1217)	(0.0099)	(0.0055)	(0.0070)	(0.0021)	(0.0055)

Coastal	-0.3215**	0.0257***	0.0137**	-0.0186**	-0.0052**	-0.0155**
	(0.1254)	(0.0099)	(0.0058)	(0.0073)	(0.0020)	(0.0062)
Social capital: (base, Others)						
Weak ties	0.5810	-0.0337	-0.0493**	0.0332	0.0133*	0.0370*
	(0.3596)	(0.0239)	(0.0259)	(0.0213)	(0.0079)	(0.0205)
Strong ties	-0.4964	-0.0254	-0.0100	-0.0294	0.0271	0.0377
	(0.3509)	(0.0197)	(0.0075)	(0.0208)	(0.0244)	(0.0237)
Religion: (base, Others)						
Muslim	0.3651***	-0.0302***	-0.0131***	0.0200***	0.0057***	0.0176***
	(0.1177)	(0.0101)	(0.0039)	(0.0064)	(0.0018)	(0.0055)
Christian	0.1716	-0.0148	-0.0051*	0.0093*	0.0025*	0.0080*
	(0.1074)	(0.0095)	(0.0028)	(0.0057)	(0.0016)	(0.0049)
Marital status: (base, Others)						
Married	0.2570*	-0.0202***	0.0114**	0.0146*	0.0042*	0.0127*
	(0.1430)	(0.0119)	(0.0053)	(0.0080)	(0.0023)	(0.0069)
Single	-0.3001*	0.0270*	0.0075	-0.0164*	-0.0045*	-0.0136
	(0.1625)	(0.0141)	(0.0052)	(0.0090)	(0.0025)	(0.0075)
Displacement	0.0049	-0.0004	-0.0003	0.0003	0.00007	0.0003
	(0.0648)	(0.0053)	(0.0025)	(0.0035)	(0.0010)	(0.0032)
/cut1	1.6070***	/	/	/	/	/
	(0.7845)					
/cut2	5.7295***	/	/	/	/	/
	(0.5965)					
/cut3	7.7855***	/	/	/	/	/
	(0.5979)					
/cut4	8.6641***	/	/	/	/	/
	(0.6007)					

Note: robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Source: authors' calculation using EESI 2, 2010.

Table A4: Ordered logistic regression of educational mobility in the father-son pair

(1) No education
(2) Primary
(3) Junior secondary
(4) Senior secondary
(5) University

Observations: 5,370
Wald chi2(34) = 2996.72
Prob > F = 0.0000

Variables		**Children's education level**				
D = 0	Coef.	(1)	(2)	(3)	(4)	(5)
Parents' education (base, No education)						
Primary	0.3977***	-0.0323***	-0.0282***	**0.0125*** **	**0.0246*** **	**0.0233*** **
	(0.0645)	(0.0053)	(0.0045)	**(0.0021)**	**(0.0040)**	**(0.0038)**
Junior secondary	0.6175***	-0.0502***	-0.0438***	**0.0195*** **	**0.0382*** **	**0.0363*** **
	(0.0919)	(0.0075)	(0.0064)	**(0.0033)**	**(0.0055)**	**(0.0055)**
Senior secondary	0.8207***	-0.0700***	-0.0583***	**0.0259*** **	**0.0509*** **	**0.0482*** **
	(0.1217)	(0.0099)	(0.0087)	**(0.0044)**	**(0.0075)**	**(0.0072)**
University	1.1490***	-0.0933***	-0.0815***	**0.0362*** **	**0.0712*** **	**0.0675*** **
	(0.2071)	(0.0169)	(0.0147)	**(0.0072)**	**(0.0128)**	**(0.0123)**
Children's SPC (base, Professional)						
Skilled worker	-2.8895***	0.1092***	0.2427***	0.1027***	-0.1082***	-0.3465***
	(0.1431)	(0.0059)	(0.0107)	(0.0107)	(0.0083)	(0.0215)
Unskilled worker	-3.4226***	0.1555***	0.2852***	0.0823***	-0.1509***	-0.3722***
	(0.1687)	(0.0096)	(0.0128)	(0.0110)	(0.0101)	(0.0221)
Employer	-2.6004***	0.0882***	0.2170***	0.1075***	-0.0846***	-0.3280***
	(0.1907)	(0.0090)	(0.0156)	(0.0104)	(0.0120)	(0.0240)
Own-account worker	-3.1719***	0.1325***	0.2663***	0.0937***	-0.1312***	-0.3613***
	(0.1528)	(0.0043)	(0.0123)	(0.0098)	(0.0082)	(0.0223)
Contributing family worker, apprentice, etc.	-2.7855***	0.1013***	0.2337***	0.1049***	-0.0997***	-0.3402***
	(0.1767)	(0.0073)	(0.0139)	(0.0101)	(0.0096)	(0.0236)
Age	0.0897***	-0.0073***	-0.0064***	0.0028***	0.0055***	0.0053***
	(0.0165)	(.0013)	(0.0012)	(0.0005)	(0.0010)	(0.0010)
Age-squared	-0.0012***	0.0001***	0.0001***	-0.00004***	-0.00007***	-0.00007***
	(0.0002)	(0.00002)	(0.00001)	(6.73e-1)	(0.00001)	(0.00001)
Public school	1.2914***	-0.1191***	-0.0851***	0.0597***	0.0775***	0.0670***
	(0.0655)	(0.0071)	(0.0039)	(0.0047)	(0.0039)	(0.0035)
Employment training matching	0.0700	-0.0054	-0.0047	0.0021	0.0041	0.0039
	(0.0783)	(0.0064)	(0.0055)	(0.0025)	(0.0049)	(0.0046)
Activity sectors (base, Agriculture)						
Manufacturing	0.1755**	-0.0148**	-0.0126*	0.0067*	0.0109*	0.0097*
	(0.0933)	(0.0077)	(0.0069)	(0.0036)	(0.0059)	(0.0052)
Trade	0.4820***	-0.0382***	-0.0365***	0.0153***	0.0310***	0.0285***
	(0.0994)	(0.0075)	(0.0081)	(0.0031)	(0.0070)	(0.0062)
Services	0.3252***	-0.0266***	-0.0240***	0.0114***	0.0206***	0.0185***
	(0.0844)	(0.0068)	(0.0065)	(0.0031)	(0.0055)	(0.0049)
Urban area	0.4040***	-0.0328***	-0.0287***	0.0127***	0.0250***	0.0237***
	(0.0768)	(0.0062)	(0.0055)	(0.0025)	(0.0048)	(0.0045)
Administrative areas (base, Southern)						
Large cities (Douala and Yaoundé)	0.6456***	-0.0441***	-0.0637***	0.0228***	0.0455***	0.0393***
	(0.1210)	(0.0088)	(0.0119)	(0.0053)	(0.0084)	(0.0072)
Northern	-0.5751***	0.0538***	0.0423***	-0.0358***	-0.0335***	-0.0267***
	(0.1161)	(0.0104)	(0.0095)	(0.0074)	(0.0071)	(0.0057)
Central	0.4088***	-0.0297***	-0.0390***	0.0171***	0.0282***	0.0235***
	(0.1131)	(0.0086)	(0.0105)	(0.0053)	(0.0076)	(0.0064)
Coastal	-0.0332	0.0027	0.0029	-0.0017	-0.0021	-0.0017
	(0.1125)	(0.0092)	(0.0099)	(0.0059)	(0.0073)	(0.0059)
Social capital (base, Others)						
Weak ties	0.4230	-0.0315	-0.0329	0.0097	0.0271	0.0275
	(0.3178)	(0.0256)	(0.0233)	(0.0101)	(0.0200)	(0.0191)

Strong ties	-0.0410 (0.3107)	0.0034 (0.0253)	0.0030 (0.0225)	-0.0014 (0.0100)	-0.0025 (0.0195)	-0.0024 (0.0183)
Religion (base, Others)						
Muslim	-0.6777*** (.1189)	0.0690*** (0.0114)	0.0392*** (0.0081)	-0.0409*** (0.0070)	-0.0369*** (0.0069)	-0.0305*** (0.0057)
Christian	0.4615*** (0.1082)	-0.0360*** (0.0092)	-0.0395*** (0.0087)	0.0189*** (0.0055)	0.0299*** (0.0067)	0.0265*** (0.0058)
Marital status (base, Others)						
Married	-0.1327 (0.1635)	0.0111 (0.0133)	0.0093 (0.0117)	-0.0048 (0.0055)	-0.0081 (0.0102)	-0.0075 (0.0094)
Single	0.1924 (0.1786)	-0.0150 (0.0144)	-0.0144 (0.0131)	0.0057 (0.0059)	0.0121 (0.0112)	0.0116 (0.0104)
Displacement	0.2798*** (0.0594)	-0.0227*** (0.0048)	-0.0199*** (0.0042)	0.0088*** (0.0019)	0.0173*** (0.0037)	0.0164*** (0.0035)
/cut1	-2.3728*** (0.5179)	/	/	/	/	/
/cut2	0.3349 (0.5206)	/	/	/	/	/
/cut3	2.1462*** (0.5214)	/	/	/	/	/
/cut4	3.9638*** (0.5193)	/	/	/	/	/

Note: robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.

Table A5: Controlling for daughter and son born from same parents: occupational mobility in the father-son pair (ordered logistic regression)

(1) Contributing family worker	
(2) Unskilled worker and own-account worker	Observations: 933
(3) Skilled worker	Wald chi2(34) = 288.341
(4) Employer	Prob > F = 0.0000
(5) Professional	Pseudo R^2 = 0.1528

Variables		**Children's odered SPCs**				
Same parents dummy = 1 D = 0	Coef.	(1)	(2)	(3)	(4)	(5)
Parents' ordered SPCs						
Contributing family worker	-1.0540*** (0.1993)	**0.1937***** **(0.0354)**	**-0.0750***** **(0.0142)**	**0.0804***** **(0.0166)**	**-0.0157***** **(0.0046)**	**-0.0226***** **(0.0062)**
Unskilled worker and own-account worker	-0.466* (0.2388)	**0.0857*** **(0.0439)**	**-0.0332*** **(0.0173)**	**-0.0356*** **(0.0184)**	**-0.0070*** **(0.0039)**	**-0.0100*** **(0.0054)**
Skilled worker	0.2637 (0.2015)	-0.0484 (0.0369)	0.0188 (0.0144)	0.0201 (0.0154)	0.0039 (0.0031)	0.0057 (0.0045)
Employer	0.0152 (0.5087)	-0.0028 (0.0935)	0.0011 (0.0362)	0.0012 (0.0388)	0.0002 (0.0076)	0.0003 (0.0109)
Professional	0.0799 (0.2395)	-0.0147 (0.0440)	0.0057 (0.0170)	0.0061 (0.0182)	0.0012 (0.0036)	0.0017 (0.0052)
Age	0.4962*** (0.0443)	-0.0912*** (0.0063)	0.0353*** (0.0031)	0.0379*** (0.0039)	0.0074*** (0.0019)	0.0106*** (0.0024)
Age-squared	-0.0064*** (0.0007)	0.0012*** (0.0001)	-0.0005*** (0.00005)	-0.0005*** (0.00006)	-0.0001*** (0.00003)	-0.0001*** (0.00003)
/cut1	7.1032*** (0.7132)	/	/	/	/	/
/cut2	9.1467*** (0.7428)	/	/	/	/	/
/cut3	10.886*** (0.7455)	/	/	/	/	/
/cut4	11.5047*** (0.7516)	/	/	/	/	/

Note: robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.

Table A6: Controlling for daughter and son born from same parents: educational mobility in the father-son pair (ordered logistic regression)

(1) No education						
(2) Primary education				Observations: 1,720		
(3) Junior secondary education				Wald chi2(34) = 546.84		
(4) Senior secondary education				Prob > F = 0.0000		
(5) University				Pseudo R2 = 0.0948		
Variables		**Children's education**				
Same parents dummy = 1 D = 0	Coef.	(1)	(2)	(3)	(4)	(5)
Parents education						
No education	-1.3976*** (0.1267)	**0.0861***** **(0.0109)**	**0.1576***** **(0.0113)**	**0.0193**** **(0.0088)**	**-0.1782***** **(0.0162)**	**-0.0848***** **(0.0104)**
Primary education	0.0705 (0.0951)	-0.0043 (0.0059)	-0.0080 (0.0107)	-.000097 (0.0013)	0.0090 (0.0121)	0.0043 (0.0058)
Junior secondary education	0.7336*** (0.1024)	-0.0452*** (0.0072)	-0.0827*** (0.0124)	-0.0101** (0.0040)	**0.0935***** **(0.0128)**	**0.0445***** **(0.0069)**
Senior secondary education	0.7502*** (0.1170)	-0.0462*** (0.0080)	-0.0846*** (0.01401)	-0.0104** (0.0042)	0.0956*** (0.0154)	**0.0455***** **(0.0071)**
University	1.4646*** (0.1542)	-0.0902*** (0.0116)	-0.1651*** (0.0196)	-0.0202** (0.0081)	**0.1867***** **(0.0199)**	0.0889*** (0.0108)
Age	0.2675*** (0.0357)	-0.0164*** (0.0023)	-0.0302*** (0.0041)	-0.0037** (0.0018)	0.0341*** (0.0045)	0.0162*** (0.0027)
Age-squared	-0.0044*** (0.0006)	0.0003*** (0.00004)	0.0005*** (0.00007)	0.00006** (0.00003)	-0.0006*** (0.00008)	-0.0003*** (0.00005)
/cut1	0.5524 (0.4499)	/	/	/	/	/
/cut2	2.5301*** (0.4496)	/	/	/	/	/
/cut3	4.3519*** (0.4585)	/	/	/	/	/
/cut4	6.5285*** (0.4661)	/	/	/	/	/

Note: robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.

Table A7: Controlling for children living in the same household of the ordered SPC dynamic in the father-son pair (ordered logistic regression)

(1) Contributing family worker	
(2) Unskilled worker and own-account worker	Observations: 1,470
(3) Skilled worker	Wald chi2(34) = 499.51
(4) Employer	Prob > F = 0.0000
(5) Professional	Pseudo R2 = 0.1857

Variables		**Children's ordered SPCs**				
Same household dummy = 1 D=0	Coef.	(1)	(2)	(3)	(4)	(5)
Dummy of parent-child (D)	-0.7041 (0.5055)	0.1201 (0.0863)	-0.0539 (0.0387)	-0.0452 (0.0330)	-0.0070 (0.0053)	-0.0141 (0.0100)
Parents' SPCs						
Contributing family worker, apprentice, etc.	-1.0159*** (0.2079)	0.1733*** (0.0349)	-0.0777*** (0.0159)	-0.0652*** (0.0142)	-0.0101*** (0.0030)	-0.0203*** (0.0053)
Unskilled worker and own-account worker	-0.5507** (0.2561)	0.0940** (0.0437)	-0.0421** (0.0199)	-0.0354** (0.0165)	-0.0055* (0.0028)	-0.0110** (0.0054)
Skilled worker	0.1068 (0.2147)	-0.0182 (0.0366)	0.0082 (0.0164)	0.0069 (0.0138)	0.0011 (0.0021)	0.0021 (0.0043)
Employer	-0.0111 (0.5284)	0.0019 (0.0902)	-0.0008 (0.0404)	-0.0007 (0.0339)	-0.0001 (0.0052)	-0.0002 (0.0106)
Professional	0.0951 (0.2546)	-0.0162 (0.0434)	0.0073 (0.0195)	0.0061 (0.0163)	0.0009 (0.0026)	0.0019 (0.0051)
D * SPC						
D * Contributing family worker, apprentice, etc.	-0.2601 (0.3866)	0.0444 (0.0660)	-0.0199 (0.0296)	-0.0167 (0.0248)	-0.0026 (0.0039)	-0.0052 (0.0078)
D * Unskilled worker and own-account worker	-0.1180 (0.4686)	0.0201 (0.0799)	-0.0090 (0.0358)	-0.0076 (0.0300)	-0.0012 (0.0046)	-0.0024 (0.0095)
D * Skilled worker	**0.7272** **(0.3179)**	**-0.1241**** **(0.0542)**	**0.0556**** **(0.0245)**	**0.0467**** **(0.0206)**	**0.0072**** **(0.0036)**	**0.0150**** **(0.0067)**
D * Employer	-0.1729 (0.9055)	0.0295 (0.1545)	-0.0132 (0.0693)	-0.0111 (0.0581)	-0.0017 (0.0090)	-0.0035 (0.0181)
D * Professional	0.2047 (0.4166)	-0.0349 (0.0710)	0.0157 (0.0318)	0.0131 (0.0268)	0.0020 (0.0041)	0.0041 (0.0084)
Age	0.4891*** (0.0401)	-0.0835*** (0.0056)	0.0374*** (0.0028)	0.0314*** (0.0032)	0.0049*** (0.0012)	0.0098*** (0.0018)
Age-squared	-0.0060*** (0.0007)	0.0010*** (0.0001)	-0.0005*** (0.00005)	-0.0004*** (0.00005)	-0.00006*** (0.00002)	-0.0001*** (0.00002)
/cut1	7.0458*** (0.6435)	/	/	/	/	/
/cut2	9.1768*** (0.6653)	/	/	/	/	/
/cut3	10.9198*** (0.6724)	/	/	/	/	/
/cut4	11.3988*** (0.6760)	/	/	/	/	/

Note: robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.

Table A8: Ordered logistic regression of education dynamic in the mother-daughter pair (other covariates)

(1) No education
(2) Primary
(3) Junior secondary
(4) Senior secondary
(5) University

Observations: 4,474
Wald chi2(34) = 2916.93
Prob > F = 0.0000

Variables		**Children's education**				
D = 1	Coef.	(1)	(2)	(3)	(4)	(5)
Children's SPCs (base, Professional)						
Skilled worker	-2.102***	0.0885***	0.1282***	0.0703***	-0.0907***	-0.1964***
	(0.2299)	(0.0095)	(0.0144)	(0.0115)	(0.0115)	(0.0267)
Unskilled worker	-3.8188***	0.2187***	0.2321***	0.0061	-0.2060***	-0.2509***
	(0.3030)	(0.0200)	(0.0179)	(0.0192)	(0.0159)	(0.0272)
Employer	-2.5193***	0.1155***	0.1550***	0.0673***	-0.1215***	-0.2164***
	(0.3497)	(0.0192)	(0.0225)	(0.0125)	(0.0220)	(0.0296)
Own-account worker	-3.5351***	0.1937***	0.2174***	0.0253**	-0.1904***	-0.2461***
	(0.2374)	(0.0068)	(0.0163)	(0.0110)	(0.0123)	(0.0274)
Contributing family worker	-3.5832***	0.1979***	0.2201***	0.0222*	-0.1932***	-0.2470***
	(0.2459)	(0.0085)	(0.0168)	(0.01192)	(0.0125)	(0.0275)
Public school	1.3517***	-0.1298***	-0.0489***	0.0867***	0.0580***	0.0341***
	(0.0724)	(0.0080)	(0.0029)	(0.0057)	(0.0035)	(0.0025)
Employment training matching	0.3368***	-0.0282***	-0.0156***	0.0182***	0.0159***	0.0097***
	(0.1182)	(0.0099)	(0.0054)	(0.0064)	(0.0055)	(0.0035)
Activity sectors (base, Agriculture)						
Manufacturing	0.3872***	-0.0338***	-0.0186***	0.0248***	0.0178***	0.0097***
	(0.1063)	(0.0092)	(0.0055)	(0.0068)	(0.0052)	(0.0028)
Trade	0.6720***	-0.0569***	0.0345***	0.0404***	0.0327***	0.0182***
	(0.1211)	(0.0099)	(0.0069)	(0.0070)	(0.0065)	(0.0037)
Services	0.7112***	-0.0599***	-0.0368***	0.0423***	0.0349***	0.0195***
	(0.0972)	(.0081)	(0.0057)	(0.0061)	(0.0053)	(0.0029)
Urban area	0.6972***	-0.0584***	0.0323***	0.0375***	0.0329***	0.0202***
	(0.0932)	(0.0077)	(0.0044)	(0.0051)	(0.0046)	(0.0029)
Administrative areas (base, Southern)						
Large cities (Douala and Yaoundé)	0.2144	-0.0185	-0.0132	0.0147	0.0108	0.0062
	(0.1457)	(0.0125)	(0.0091)	(0.0101)	(0.0073)	(0.0042)
Northern	-1.9049***	0.2258***	0.0058	-0.1368***	-0.0621***	-0.0326***
	(0.1425)	(0.0168)	(0.0077)	(0.0107)	(0.0059)	(0.0034)
Central	0.4601***	-0.0377***	-0.0300***	0.0300***	0.02427***	0.0142***
	(0.1215)	(0.0104)	(0.0076)	(0.0082)	(0.0063)	(0.0036)
Coastal	-0.0631	0.0057	0.0035	-0.0045	-0.0030	-0.0017
	(0.1233)	(0.0111)	(0.0069)	(0.0087)	(0.0059)	(0.0033)
Social capital (base, Others)						
Weak ties	0.7792**	-0.0620***	-0.0408***	0.0364***	0.0412***	0.0253**
	(0.3805)	(0.0321)	(0.0182)	(0.0212)	(0.0187)	(0.0109)
Strong ties	0.1041	-0.0089	-0.0048	0.0059	0.0049	0.0027
	(0.3520)	(0.0303)	(0.0159)	(0.0205)	(0.0165)	(0.0092)
Religion (base, Others)						
Muslim	0.0353	-0.0835***	-0.0309***	0.0556***	0.0374***	0.0215***
	(0.1497)	(0.0134)	(0.0032)	(0.0091)	(0.0049)	(0.0027)
Christian	0.8904***	-0.0035	-0.0007	0.00234	0.0012	0.0007
	(0.1308)	(0.0152)	(0.0030)	(0.0101)	(0.0052)	(0.0029)
Marital status (base, Others)						
Married	0.1415	-0.0126	-0.0063	0.0095	0.0059	0.0034
	(0.1052)	(0.0095)	(0.0045)	(0.0072)	(0.0044)	(0.0024)
Single	0.8270***	-0.0686***	-0.0438***	0.0487***	0.0403***	0.0234***
	(0.1285)	(0.0108)	(0.0069)	(0.0085)	(0.0063)	(0.0036)
Displacement	0.3000***	-0.0251***	-0.0139***	0.0162***	0.0142***	0.0087***
	(0.0668)	(0.0055)	(0.0031)	(0.0036)	(0.0032)	(0.0020)

/cut1	-3.2141*** (0.5539)	/	/	/	/	/
/cut2	0.1367 (0.5552)	/	/	/	/	/
/cut3	2.4495*** (0.5543)	/	/	/	/	/
/cut4	4.5055*** (0.5500)	/	/	/	/	/

Note: robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.

B *Family background multiplier*, sibling correlation and employment status index

The 'family background multiplier' for each SPC

As stated in Equation 10, the 'family background multiplier' for each of these parents' socio-professional categories are computed according to the following formula: $\frac{1}{1-(\beta_3)^2}$. Based on results obtained in Table 8, family background multipliers that we obtain for each SPC are close to one. Since, this multiplier is more relevant for analyses that use longitudinal data, cautions should be taken when commenting on our results, which are based on cross-section data.

To address some challenges[10] related to studies on social mobility in low- and middle-income countries (LICs), we further explore the coefficient of our estimates using the siblings' correlation (SC), a control function to account for displacement, and we finally construct a multiple indicator of parents' social status. By distinguishing formal from informal employments, we find significant intergenerational transmissions among self-employed in the informal sector. We also obtain a displacement effect, since no significant effect has been found among households that have never left their place of birth.

Controlling for siblings' correlation (SC)

The first approach follows Solon (1999)[11] and Emran and Shilpi (2019) who proposed the correlation in economic outcomes among siblings as an excellent measure of immobility in developing countries. The siblings' correlation (SC) captures the common influences of both observable and unobservable family characteristics, school, and neighbourhood shared on the economic opportunities of children. As all these factors affecting the siblings are not chosen by the children themselves, but they "are born into it" (Emran and Shilpi 2015: 364), the SC has the advantage of not being correlated with parental background. Consequently, it provides more credible estimates in the presence of co-residency (Solon 1999). By introducing this SC as an instrumental variable (IV) in experimental analysis regressions, it corrects both ability and measurement error biases. Nevertheless, beyond experimental analysis, Murtazashvili (2012) suggested that the control function approach is more appropriate for estimating the causal effect when there is a credible IV. This paper thus opts for this control function method.

Based on the formula proposed by Solon (1999: 1767) and recommended by Emran and Shilpi (2019: 17), the SC is given by: $SC = \frac{\sigma_c^2}{\sigma_c^2+\sigma_u^2}$, where variances drawn from the estimating equation

[10] Sen et al. (2019) listed inappropriate measures of mobility and lack of longitudinal data; Deaton (1987) raised the issue of co-residency

[11] First reflections on the issue were made in late eighties and earlier nineties (Solon 1988, 1992)

of SC are in Appendix A6. This SC is written as a mixed effects model of education and SPC, respectively. Formally, it comes from the model: $y_{ss/b} = \alpha + c_j + u_{ij}$, where $y_{ss/b}$ is the education level or SPC of sibling, subscripts ss/b denoting sisters and brothers, respectively, α the population mean, c_j the common family effect shared by siblings (here we consider the geographical location: urban or rural areas), and u_{ij} the idiosyncratic component of child measuring the deviations from the common family effect and assumed to be uncorrelated with the family component.

Table B1: Siblings' correlation (SC) by education and SPC (base: mother-daughter pair)

SC in education	0.603
SC in SPC (base, Professional)	
Skilled worker	0.370
Unskilled worker	0.618
Employer	0.663
Own-account worker	0.076
Contributing family worker*	0.049

Note: * including apprentice and no-ranked category.

Source: authors' calculation using EESI 2, 2010.

Results in Table C1 show that in Cameroon, common family effect among siblings account for more than the half in factors explaining intergenerational transmissions in education and SPC of wage-employed unskilled worker and self-employed employer. Nonetheless, this family background plays a little role in transmissions of skilled worker, whereas it did not play a consistent role in those of own-account worker and the no-ranked category (including apprentice and contributing family worker).

Table B2: Multiple indicator of social status of employment dynamic

Ordinary least squared regressions Observations: 14,218	
Mother-daughter dummy (D)	-3.45e-16*** (6.54e-18)
Parents' social status index (SSI)	-1.37e-16 *** (2.39e-18)
D * SSI	1*** (2.39e-18)
Constance	1.11e-16*** (2.36e-18)

Note: robust standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Source: authors' calculation using EESI 2, 2010.

Multiple indicator of social status

Finally, we combine a multiple indicator of social status[12] by aggregating mother (father) education with her (his) socio-professional category (occupation measures)[13]. This last strategy helps to take

[12] Proposed by Clark and Cummins (2015).

[13] Lubotsky and Wittenberg (2006) added parent log income to these, but our dataset do not allow us to do so.

into account Clark's (2014) argument that any single indicator of socio-economic status is an imperfect measure of economic status. We reach a positive and significant impact of social status among generations for the mother-daughter pair. Our results thus appear robust for this alternative measure of occupational status.

C Other analyses

Table C1: Linear OLS regressions of educational mobility

	Children's education	
Variables	With Controls	Without
Dummy variable (D)	-0.1724*** (0.0399)	-0.3959*** (0.0374)
Parents Education	-0.3171*** (0.0301)	-0.6468*** (0.0289)
D * Parents' education	**0.0902**** **(0.0432)**	**0.1140***** **(0.0437)**
Controls		
Children SPC	-0.1427*** (0.0089)	
Urban area	0.187***	
Public school	0.494***	
Displacement	0.1370*** (0.0184)	
Age	0.0133*** (0.0045)	
Age-squared	-0.0002*** (0.00005)	
Children's activity sector (base, Agriculture)		
Manufacturing	0.0448 (.0282)	
Trade	0.1173*** (0.0314)	
Services	0.1910*** (0.0261)	
Administrative areas (base, Southern)		
Large cities	0.2674*** (0.0415)	
Northern	-0.5571*** (0.0352)	
Central	0.1632*** (0.0362)	
Costal	0.0289 (0.0365)	
Social capital (base, Others)		
Weak ties	0.3005*** (0.0970)	
Strong ties	-0.2210** (0.0923)	
Marital status (base, Others)		
Married	0.1275*** (0.0295)	

Single	0.3120*** (0.0371)	
Constant	2.8575*** (0.1440)	3.4280*** (0.0239)
R-squared	0.4888	0.0690
Prob > F	0.0000	0.0000
Observations	9,853	14,218

Note: robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.

Table C2: Ordered regression of occupational mobility with the age cut-off 21–64 years old (mother-daughter pair)

(1) Contributing family worker
(2) Unskilled-worker and own-account worker
(3) Skilled worker
(4) Employer
(5) Professional

Observations: 4,048
Wald chi2 = 832.44
Prob > chi = 0.0000
Pseudo R^2 = 0.1258

Variables		**Children's ordered SPCs**				
D=1	Coef.	(1)	(2)	(3)	(4)	(5)
Parents' ordered SPCs						
Contributing family worker	-1.2706*** (0.0861)	0.1734*** (0.0109)	-0.0367*** (0.0052)	-0.0597*** (0.0050)	-0.0210*** (0.0026)	-0.0560*** (0.0050)
Unskilled worker and own-account worker	-0.7913*** (0.2043)	0.1080*** (0.0279)	-0.0228*** (0.0070)	-0.0372*** (0.0096)	-0.0131*** (0.0035)	-0.0349*** (0.0091)
Skilled worker	0.4673*** (0.1253)	0.0638*** (0.0170)	0.0135*** (0.0040)	0.0220*** (0.0060)	0.0077*** (0.0022)	0.0206*** (0.0056)
Employer	-0.8364** (0.3294)	0.1141** (0.0450)	-0.0242** (0.0104)	-0.0393** (.0155)	-0.0138** (0.0055)	-0.0369** (0.0145)
Professional	0.8105*** (0.1727)	-0.1106*** (0.0235)	0.0234*** (0.0060)	0.0381*** (0.0081)	0.0134*** (0.0030)	0.0357*** (0.0081)
Controls						
Urban area	1.2146*** (0.0774)	-0.1657*** (0.0101)	0.0351*** (0.0049)	0.0571*** (0.0045)	0.0201*** (0.0024)	0.0536*** (0.0048)
Age	0.2290*** (0.0218)	-0.0313*** (0.0030)	0.0070*** (0.0011)	0.0107*** (0.0011)	0.0038*** (0.0005)	0.0101*** (0.0011)
Age-squared	-0.0024*** (0.0003)	0.0003*** (0.00004)	-0.00007*** (0.00001)	-0.0001*** (0.00001)	-0.00004*** (5.83e-06)	-0.0001*** (0.00001)
Constant 1	2.7729*** (0.4625)	/	/	/	/	/
Constant 2	6.6227*** (0.4715)	/	/	/	/	/
Constant 3	7.5224*** (0.4706)	/	/	/	/	/
Constant 4	7.9413*** (0.4696)	/	/	/	/	/

Note: robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.

Table C3: Ordered regression of occupational mobility with the age cut-off 21–64 years old (father-son pair)

(1) Contributing family worker	Observations: 4,936
(2) Unskilled worker and own-account worker	Wald chi2 = 883.90
(3) Skilled worker	Prob > chi = 0.0000
(4) Employer	Pseudo R^2 = 0.0887
(5) Professional	

Variables		**Children's ordered SPCs**				
D=0	Coef.	(1)	(2)	(3)	(4)	(5)
Parents' ordered SPCs						
Contributing family worker	-0.3092*	0.0155***	0.0452***	-0.0227***	-0.0106***	-0.0274***
	(0.0742)	(0.0038)	(0.0109)	(0.0055)	(0.0026)	(0.0066)
Unskilled worker and own-account worker	-0.2064*	0.0104***	0.0302*	-0.0151*	-0.0071*	-0.0183*
	(0.1172)	(0.0059)	(0.0171)	(0.0086)	(0.0040)	(0.0104)
Skilled worker	0.5630***	-0.0283***	-0.0822***	0.0413***	0.0193***	0.0499***
	(0.1025)	(0.0052)	(0.0149)	(0.0076)	(0.0036)	(0.0092)
Employer	0.7149***	-0.0358***	-0.1044***	0.0524***	0.0245***	0.0634***
	(0.1911)	(0.0097)	(0.0279)	(0.0141)	(0.0068)	(0.0169)
Professional	1.0506***	-0.0527***	-0.1535***	0.0770***	0.0360***	0.0932***
	(0.1260)	(0.0068)	(0.0182)	(0.0093)	(0.0046)	(0.0114)
Controls						
Urban area	1.1258***	-0.0565***	-0.1645***	0.0825***	0.0385***	0.1000***
	(0.0685)	(0.0042)	(0.0096)	(0.0050)	(0.0029)	(0.0067)
Age	0.3206***	-0.0161***	-0.0468***	0.0235***	0.0110***	0.0285***
	(0.0199)	(0.0014)	(0.0027)	(0.0015)	(0.0009)	(0.0020)
Age-squared	-0.0036***	0.0002***	0.0005***	-0.0003***	-0.0001***	-0.0003***
	(0.0002)	(0.00002)	(0.00003)	(0.00002)	(0.00001)	(0.00002)
Constant 1	3.8600***	/	/	/	/	/
	(0.4085)					
Constant 2	7.6667***	/	/	/	/	/
	(0.4141)					
Constant 3	8.9901***	/	/	/	/	/
	(0.4158)					
Constant 4	9.5382***	/	/	/	/	/
	(0.4160)					

Note: robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.

Table C4: Ordered regression of educational mobility with the age cut-off 21–64 years old (mother-daughter pair)

(1) No Education.				Observations: 5,240		
(2) Primary				Wald chi2 = 2205.98		
(3) Junior secondary				Prob > chi = 0.0000		
(4) Senior secondary				Pseudo R^2 = 0.1631		
(5) University						
Variables			**Children's education**			
D=1	Coef.	(1)	(2)	(3)	(4)	(5)
Parents' education						
No education	-1.6139***	0.2036***	0.0738***	-0.0739***	-0.0943***	-0.1093***
	(0.0746)	(0.0082)	(0.0050)	(0.0043)	(0.0054)	(0.0065)
Primary	0.3627***	-0.0458***	-0.0170***	0.0166***	0.0212***	0.0246***
	(0.0618)	(0.0079)	(0.0028)	(0.0033)	(0.0037)	(0.0042)
Junior secondary	0.7036***	-0.0888***	-0.0322***	0.0322***	0.0411***	0.0476***
	(0.0989)	(0.0126)	(0.0046)	(0.0050)	(0.0058)	(0.0067)
Senior secondary	1.0390***	-0.1311***	-0.0475***	0.0476***	0.0607***	0.0703***
	(0.1337)	(0.0171)	(0.0062)	(0.0069)	(0.0080)	(0.0091)
University	1.4915***	-0.1881***	-0.0682***	0.0683***	0.0872***	0.1010***
	(0.2141)	(0.0272)	(0.0101)	(0.0109)	(0.0130)	(0.0143)
Controls						
Urban area	1.6040***	-0.2024***	-0.0734***	0.0734***	0.0938***	0.1086***
	(0.0576)	(0.0072)	(0.0030)	(0.0035)	(0.0042)	(0.0057)
Age	0.0154***	-0.0019	-0.0007	0.0007	0.0009	0.0010
	(0.0169)	(0.0021)	(0.0008)	(0.0008)	(0.0010)	(0.0011)
Age-squared	-0.0008***	0.0001***	0.00004***	-0.00004	-0.00005***	-0.00005***
	(0.0002)	(0.00003)	(0.00001)	(9.86e-06)	(0.00001)	(0.00001)
Constant 1	-1.6481***	/	/	/	/	/
	(0.3135)					
Constant 2	0.4980	/	/	/	/	/
	(0.3136)					
Constant 3	2.0500***	/	/	/	/	/
	(0.3150)					
Constant 4	3.2444***	/	/	/	/	/
	(0.3164)					

Note: robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: authors' calculation using EESI 2, 2010.