PACES

Making migration and migration policy decisions amidst societal transformations

Social Norms and Migration

Evidence from Ethiopia and Nigeria

Ralitza Dimova
University of Manchester

Hanna Fromell
Aarhus University

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PACES (Making migration and migration policy decisions amidst societal transformation) is a 40-month research project (2023-2026) that examines decisions to stay and migrate over time and space, researches the politics of knowledge in migration policy and seeks to use its insights to inform future migration policies and governance. PACES is carried out by a consortium of 14 partners in Europe, Africa and the USA.

Contact for PACES project
Simona Vezzoli
International Institute of Social Studies, Erasmus University Rotterdam
Kortenaerkade 12
2518 AX, The Hague, The Netherands
Website: www.iss.nl/paces

Authors
Ralitza Dimova: Ralitza.Dimova@manchester.ac.uk, Hanna Fromell: hanna.fromell@econ.au.dk

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Abstract

Using large vignette-based survey with young people aged 18-25 and one of their parents, we examine the association of social and personal norms related to migration with migration aspirations and the self-assessed migration probability of young adults in Ethiopia and Nigeria. In both settings, we document pronounced gender patterns, with male migration generally preferred to female migration, especially when the migrant networks are weak, and the young individual is under pressure to get married. There appears to be greater tendency to see men as providers and hence less pressure on women to migrate in order to help the family as opposed to realising their dreams, but for migrant women, there is relative preference for external as opposed to internal migration. Both personal and social norms influence migration aspirations and the self-reported probability of migrating and personal norms continue to be relevant, even after accounting for social norms and parental influence. This highlights real, though limited ability of individuals to make independent choices within normative structures that shape and constrain people's opportunities and freedoms.

Keywords: Migration, social norms, intra-household bargaining power, aspirations, migration probability

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1. Introduction

The decision of individuals to migrate, or of households to send family members abroad, has long been central to research across the social sciences (Borjas, 1991; Massey et al., 1993; Chiswick, 1999; de Haas et al, 2019). Typical explanations highlight pecuniary incentives (Lewis, 1954; Harris and Todaro, 1970; Borjas, 1990), collective family decisions (Stark and Lavhiri, 1982; Stark, 1991) or bifurcation of the global capitalist market into a rich and less populated core and poor and more populous periphery (Pioré, 1979; Wallenstein, 1974). Researchers have also explored the perpetuation of migrant flows due to either network effects (Massey, 1990a; Massey 1990b) or institutional factors (Stark, Taylor and Yizhaki, 1989). More recently, a growing body of work has documented how climate shocks and climate-shock-induced conflicts create additional migration pressures (Machiori et al, 2012; Maystadt and Ecker, 2014; Mach, 2019). At the same time, policy makers, international organisations, and the media have increasingly focused on the question of whether—and how—migration flows can be managed or channelled toward productive outcomes.

Although a substantial literature examines economic, demographic, and institutional determinants of migration, and social norms are shown to be key drivers of socio-economic behaviour, far less is known about the role of social norms, or about the tension between social expectations and individual agency in migration choices. The focus of the emerging social-norm related economics literature on migration is predominantly on the transmission of norms from the destination to the origin country (Beine and Sekkat, 2012; Tuccio, Wahba and Hamdouch, 2019; Tuccio and Wahba, 2018). Norms within this literature are typically proxied by broad-based institutional measures such as gender discrimination and women's rights (Nejad, 2013; Evan et al, 2025). In contrast, qualitative studies document rich but highly context-dependent gendered expectations. For men, migration is frequently viewed as a marker of pride or transition into adulthood (Mondain and Diagne, 2013). The picture seems more nuanced for women, especially in the case of marriage pressure, which can be seen as either a constraint or a push factor for migration. While evidence from African countries shows that women's aspirations to migrate go down after the age of 18, suggesting migration constraints on account of marriage and childbearing duties (Costa et al, 2024), migration can also be used as an escape route from early marriage (Belloni, 2019; Schewel, 2022). While this literature highlights the importance of gendered and context-specific pressures, we know little about how the underlying social expectations are structured or how they relate to individuals' own preferences and stated migration aspirations and prospects.

This paper offers one of the first structured assessments of personal and social norms related to migration and links these norms to migration aspirations and the self-assessed probability of migrating. Given that the family is both a key perpetuator of social norms and influencer of migrant behaviour, it also examines how parental norms affect migration aspirations and the self-assessed probability of the child to migrate.

We proceed in two steps. First, we identify how norms vary across gender, migration type (internal versus international), reasons for migrating (supporting the family versus personal advancement), the strength of networks at the destination, and marriage-related pressures, and how they differ within and across households. This is accomplished via a Krupka–Weber (2013)-type social norm elicitation task as part of a large survey with 616 parent–adult child pairs in Ethiopia and 606 pairs in Nigeria. The experiment elicits both personal norms (what respondents think one should do) across both young adults and their parents and social norms (what they believe others in the community consider to be acceptable behaviour) across a variety of migration scenarios.

Next, we match these measures with information on migration aspirations and self-estimated migration probabilities, as well as a rich set of household and individual characteristics and explore the underlying relationships. The aspirations–capabilities framework (de Haas, 2021) provides a useful conceptual lens for understanding these mechanisms. In this framework, migration outcomes reflect both what individuals want to do (aspirations) and what they feel they are able to do (capabilities), and social norms can shape each component. Norms may influence aspirations by signalling which forms of migration are socially desirable or acceptable, and they may also affect perceived capabilities or freedoms by shaping expectations about marriage, family responsibilities, or the feasibility of leaving1. Within this framework, we acknowledge the ability of individuals to abide by personal norms (i.e., their personal view of what is acceptable behaviour in a given situation) that may differ from social norms (the common understanding of what is considered acceptable behaviour within the community), or in other words, we allow for individuals to have the agency of making independent decisions with their personal normative judgements shaping aspirations and capabilities alongside the influence of social norms and family influences.

We find that, in both settings, male migration is favoured over female migration, with this preference for male over female migration being stronger in the case of internal migration, when the young individual experiences pressure to get married, when the migrant networks in the destination are weak and when the purpose of migration is to support the family back home. When social norms are not accounted for in the empirical analysis, girls and boys report similar migration aspirations. Once social norms are controlled for, however, girls report higher aspirations than boys, indicating that social expectations exercise a relative constrain over girls' stated aspirations. Personal norms remain a significant factor that shapes aspirations and the self-reported probability of migrating even after accounting for the influence of social and parental norms. This highlights real, though limited, ability of individuals to make independent choices within normative structures that shape and constrain people's opportunities and freedoms.

[1] Note that we use the capability concept in a Sen-type freedoms sense. This is to be distinguished from the narrower ability to migrate that is constrained by monetary and other factors after the individual has decided to migrate or aspires to do so. A nice distinction between the different concepts is provided in Carling and Schewel (2017). In our empirical analysis we control for a wide range of factors that influence both migration aspirations and capabilities over and above the influence of norms.

The rest of the paper is organized as follows. In Section 2 we explain the design of the study and document some social and personal norm patterns. Section 3 conceptualises the link between migration norms and migration aspirations and the self-assessed migration probability and highlights the methodology used for assessing this association. Section 4 reports the associated results and Section 5 concludes.

2. Design of the study

The analysis uses survey data, collected in Nigeria and Ethiopia, which are the two most populous countries in Africa, with large demographic dividends. With more than 2 million international migrants from Nigeria and more than 1 million international migrants from Ethiopia, the two countries represent two of the largest outmigration locations in the world (Migration Policy Institute, 2025).

The choice of locations within Nigeria and Ethiopia was based on the centre-periphery principle of targeting a large urban centre and a small semi-rural town, both characterised by well -developed migration patterns. In Nigeria, data was collected in the capital city Abuja and the smaller town Osogbo in the southwestern, largely rural part of the country, while in Ethiopia the same type of information was collected in Adama, a busy town on the way from Addis Ababa to Dire Dawa, and Jigjiga and Kebribeya in Somali region in East Ethiopia, which together give population size similar to that of Osogbo.

The sampling exercise resulted in 97 communities in Ethiopia and 49 communities in Nigeria. Neighbourhoods have been defined using a locally constructed identifier that reflects the smallest residential unit considered meaningful in each study site. The underlying administrative components vary across cities and countries—drawing on woreda or kebele-level units in Ethiopia and sub–local government area units (such as zones or districts, with or without finer location identifiers) in Nigeria—because formal administrative structures differ across settings. The construction of this identifier was informed by local knowledge in each site, with the explicit goal of capturing residential areas of comparable size in terms of the number of households. As a result, although neighbourhoods correspond to different administrative levels across cities, they are intended to represent similar social and spatial units within each country.

In each neighbourhood, households were selected randomly following the principle that each household needs to have at least one young adult of age 18+ and at least one young adult's parent, resulting in a sample of 616 parent-child pairs (1232 individuals) in Ethiopia and 603 parent-child pairs (1206 individuals) in Nigeria. Since intergenerational co-residence is common in the interviewed areas, sampling of the desired type was not an issue and produced a balanced girl-boy sample. It turned out to be more challenging to find a father than a mother in the house during daytime. Hence, to ensure roughly balanced gender composition of the parents' sample, interviewers often had to return to the house towards the evening or interview fathers in their workplaces.

2.1. Migration indicators and individual and household characteristics

We collected data on demographic (age, education, labour status), household (assets, migrant networks) and behavioural (risk preferences, bargaining power) characteristics for all 2444 individuals and highlight in Table 1 corresponding descriptive statistics for both the two countries as a whole and for each of the two locations in each country. We observe that the level of education is significantly lower in the Ethiopian sample, with more than a quarter of the individuals in Ethiopia having no education. There are large gender differences in education in the older generation, with mothers about twice as likely to be illiterate than fathers. The high illiteracy proportion is driven by the high level of illiteracy in Kebribeya and Jigjiga, where 77% of the mothers and 40% of the fathers have no education. The level of illiteracy drops sharply in the next generation, with none of the young respondents in the Adama sample having no education at all. Although the level of illiteracy is also substantially reduced in the young generation in Kebribeya and Jigjiga compared to the older generation, the gender gaps persists with only 4% of the young men being illiterate and this proportion being 13% among the young female respondents. By contrast, both illiteracy and the gender gap in education are very low in Nigeria with none of the young individuals having no education at all and generally less than 3% of the mothers and fathers having no schooling.

This pattern is mirrored by the proportions of working individuals and individuals in full time education. In Ethiopia, there are significant gender and regional differences in employment with 85% of the fathers in Adama being employed compared to 78% of the mothers and 67% of the fathers in Kebribeya and Jigjiga being employed compared to 62% of the mothers. While 40% of the young men in Adama are employed, this is true for only 30% of the young women in Adama. The corresponding proportions are 17% versus 13% in Kebribeya and Jigjiga. Interestingly while more young women are in full time education in Adama (50% compared to 40% of the young men), the proportions are reversed in Kebribeya and Jigjiga, namely 33% of the young women and 46% of the young men.

In Nigeria, the gender gap in employment is much lower and in fact the employment rate of mothers in Osogbo exceeds that of the fathers: 92% compared to 88%. The corresponding employment rates are 81% for mothers and 81% for fathers in Abuja. In both Nigerian locations young women are slightly less likely to work than young men: 40% versus 45% in Abuja and 26% versus 33% in Osogbo. Interestingly, the lower employment rate among the younger generation in Osogbo corresponds to a higher full time schooling rate than in Abuja. While 44% of the young women and 48% of the young men in Abuja are in full time education, this is true for 58% of the young women and 57% of the young men in Osogbo.

The level of risk aversion (measured on a scale from 1 to 5, 1 being the highest willingness to take risk and 5 being the lowest) is also higher in Ethiopia than Nigeria especially once again in the Somali region. By contrast, while 60% of the Nigerian interviewees report having a migrant in the extended family (the proportion being higher in Osogbo, namely

73%), this is true for only 34% of the Ethiopian respondents, with the proportion being particularly low at 25% in the Kebribeya and Jigjiga sample. 43% of the Nigerian respondents mention Europe and 41% of them mention as a preferred migration destination for themselves or their children, while the corresponding percentages are 19.76% and 62.32% in the Ethiopian sample.

Another interesting difference concerns religion with Christians dominating the Nigerian and Adama samples and Islam being the only religion in the Kebribeya and Jigiga samples. In the survey, we also asked each respondent to rate on a scale from 1 (lowest) to 4 (highest) the relative weight (or bargaining power) of the mother, the father and the selected child in migration related decision making. We observe that the bargaining power (or weight in migration decision making) of the father is the highest across the different locations, followed by the bargaining power of the mother and then the child, the gap once again being highest in Kebribeya and Jigjiga. In sum, there are interesting differences across sample-based indicators of economic welfare, which is higher among Nigerian respondents than Ethiopian respondents and lowest among respondents from Kebribeya and Jigiga. To account for these differences, we control for city fixed effects in each of our empirical specifications.

Table 1: Descriptive Statistics

	Ethiopia		
Variable	Mean	Adama	Kebribeya and Jigjiga
Age parent	49.019	50.16	47.93
	(9.562)	(9.74)	(9.2762)
Age child	20.68	21.01	20.40
	(2.45)	(2.53)	(2.3480)
No education mother	0.4783	0.1895	0.7756
	(0.5001)	(0.3928)	(0.4182)
No education father	0.2600	0.0786	0.4054
	(0.4397)	(0.2707)	(0.4931)
No education girl	0.0694	0.000	0.1388
	(0.2546)	(0.000)	(0.3470)
No education boy	0.02456	0.000	0426
	(0.1550)	(0.000)	(0.2027)
Risk aversion	2.216	1.6124	2.7628
	(1.281)	(0.9149)	(1.3196)
Own house	0.721	0.7081	0.7350
	(0.449)	(0.4553)	(0.4413)
Occupation working mother	.7091	0.7867	0.06292
	(0.4547)	(0.4105)	(0.4841)
Occupation working father	0.7500	0.8539	0.6756
	(0.4702)	(0.3551)	(0.4490)
Occupation working girl	0.1319	0.2986	0.1319
	(0.3396)	(0.4592)	(0.3396)
Occupation working boy	0.1768	0.4049	0.1768
	(0.3826)	(0.4929)	(0.3826)
Occupation studying boy	0.4385	0.4049	0.4634
	(0.4970)	(0.4929)	(0.1870)
Occupation studying girl	0.4166	0.5000	0.3333
	(0.4938)	(0.5017)	(.4730)
Christian	0.384	0.8094	0.000
	(0.486)	(0.3932)	(.0000)

Muslim	0.616	0.1906	1.000
	(0.486)	(0.3932)	(.0000)
Any migrants	0.3438	0.4219	.2586
	(0.4754)	(0.4946)	(.4385)
Bargaining power head	3.363	3.1687	3.5413
	(1.014)	(1.0825)	(.9108)
Bargaining power spouse	3.331	3.3551	3.3101
	(0.841)	(0.8088)	(.8684)
Bargaining power child	2.994	3.2354	2.7756
	(0.944)	(0.8270)	(.9899)
Nigeria			
Variable	Mean	Abuja	Osogbo
Age parent	54.4917	55.7090	53.2904
	(81.7106)	(112.1846)	(29.4164)
Age child	20.6130	20.5654	20.6597
	(2.3334)	(2.3920)	(2.2775)
No education mother	0.02564	0.0392	0.01257
	(0.15831)	(0.1947)	(.1117)
No education father	0.02068	0.0342	0.0069
	(0.1425)	(0.1824)	(0.0833)
No education girl	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
No education boy	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
Risk aversion	1.8168	1.8608	1.7730
	(1.1705)	(0.1360)	(1.2031)
Own house	0.5324	0.4732	0.5908
	(0.4994)	(0.5001)	(0.4925)
Occupation working mother	0.8685	0.8104	0.9245
	(0.3383)	(0.3932)	(0.2649)
Occupation working father	0.8896	0.8972	0.8819
	(0.3138)	(0.3046)	(0.3238)
Occupation working girl	0.3377	0.4078	0.2653
	(0.4737)	(0.4930)	(0.4430)
Occupation working boy	0.3897	0.4503	0.3333
	(0.4885)	(0.4994)	(0.4730)
Occupation studying girl	0.5150	0.4473.	0.5850
	(0.5006)	(0.4988)	(0.4944)
Occupation studying boy	0.5294	0.4809	0.5744
	(0.5000)	(0.5015)	(0.4961)
Christian	0.7111	0.7251	0.6971
	(0.4535)	(0.4469)	(0.4599)
Muslim	0.2889	0.2749	0.3029
	(0.4535)	(0.4469)	(0.4599)
Any migrants	0.6223	0.5067	0.7360
	(0.4852)	(0.5008)	(0.7360)
Bargaining power head	3.6990	3.5752	3.8207
	(0.6137)	(0.6806)	(0.5121)
Bargaining power spouse	3.5060	3.4583	3.5533
	(0.6610)	(0.6814)	(0.6371)
Bargaining power child	3.2947	3.2985	3.2910
	(0.7305)	(0.7323)	(0.7295)

2.2. Social norms and personal norms

The survey included a norm section using the Krupka-Weber social norm elicitation framework. In keeping with the literature, we define social norms as shared understanding of the social acceptability or absence of acceptability of a certain action among a reference group, in our case- the neighbourhood as defined above (Ostrom, 2000; Akerlof and

Kranton, 2000). These norms are elicited by requesting the interviewees to assess possible behavioural actions in a series of hypothetical situations from the point of view of their communities. Following trends in the contemporary literature on social norms, we also elicit personal norms, namely the interviewees' personal evaluation of the acceptability of each behaviour (Andre et al, 2021; Barooah et al, 2025; Bašić and Verrina, 2024),).

A Krupka-Weber (2003) type vignette exercise was used to elicit the acceptability of migration behaviour that varies by gender, network strength, destination (within the country or outside the country), purpose of migration (whether for personal realisation or helping the family back home) and pressure to get married. The parameters over which the acceptability of migrant behaviour is assessed are summarised in Table 2. To illustrate, the first vignette presented to participants described a situation in which a girl of age 18-25 in the neighbourhood has an intention to migrate, the migration destination is abroad, the family network in that destination are strong, the purpose of migration is to earn money for the family and the girl is not under pressure to get married within the coming year. The participant was then asked to rank from 0 (the least acceptable) to 6 (the most acceptable), the personal and social acceptability of staying back home versus migration, as follows: (a) Imagine that the person in the hypothetical scenario decides to **stay** back home, according to **your personal judgement**, how appropriate would that be? (b) Imagine that the person in the hypothetical scenario decides to **migrate**, according to **your personal judgement**, how appropriate would that be? (c) Imagine that the person in the hypothetical scenario decides to **stay** back home, please make a guess of how **socially appropriate for most people in your community** would that be? (d) Imagine that the person in the hypothetical scenario decides to **migrate** back home, please make a guess of how **socially appropriate for most people in your community** would that be?

Table 2: Overview of experimentally varied features in vignettes

Name	Gender		Destination		Social network at destination		Purpose of migration		Expected to get married within one year	
	Female	Male	Abroad	Capital	Strong	Weak	Support family	Purpose self	No	Yes
1 Girl	x		x		x		x		x	
2 Girl	x			x	x		x		x	
3 Girl	x			x		x	x		x	
4 Girl	x		x			x	x		x	
1 Boy		x	x		x		x		x	
2 Boy		x		x	x		x		x	
3 Boy		x		x		x	x		x	
4 Boy		x	x			x	x		x	
5 Girl	x		x			x		x	x	

5 Boy		x	x			x		x	x	
6 Boy		x	x		x		x			x
6 Girl	x		x		x		x			x

The key parameters relevant for the presented vignette are illustrated with a set of cards. The first vignette, for instance, is presented as follows:

The description of the vignettes that follow highlights what is different in comparison to the vignette just presented. For instance, in the presentation of the second vignette the third "card" is flipped to show a map of Ethiopia/Nigeria instead of the entire world, to illustrate that the next scenario concerns migration within the country. But in all other respects the vignette that follows is similar to the preceding vignette. To avoid anchoring effects, we randomise the sample such that half of the interviewees are presented with vignettes about a boy(girl) in all vignettes where the other half are presented with a vignette about a girl(boy).

Figure 1 highlights the average rankings of the social acceptability of either migrating or staying in response to questions (c) and (d), where in keeping with Krupka-Weber (2003) the six rankings of the evaluation are given numerical values -1, -2/3, -1/3, 0, 1/3, 2/3 and 1 respectively to construct ordinal variables.

3. The implications of personal, social and parental norms for migration aspirations and the self-assessed probability of migrating: conceptual framework and empirical specifications

Traditionally, social norms have been seen as central drivers of social behaviour (Benabou and Tirole, 2006; Andreoni and Bernheim, 2009; Krupka and Weber, 2013; Fehr and Gaetcher, 2000; Akerlof, 1980; Fehr et al, 1998), while much of the theoretical literature on migration has seen the decision to migrate as an automated cause-and-effect response to a set of static pull-push factors. Only recently, systematic attempts have been made to deviate from this overarching behavioural framework and explore the scope for personal agency both in general and in the specific context of migration.

In the context of migration, the closest conceptual framework that comes to mind is the aspirations-capability approach of de Haas (2021), where migration is seen as a function of individuals' aspirations and capabilities of migrating within a set of perceived geographic opportunities and structures. As part of this paradigm individuals are seen less as either "individual utility maximisers or victims of norms and global capitalist forces, fleeing from destitution and oppression, but as rational and free agents who make cost and benefit calculations". Agency is defined as the "limited, but real ability of human beings (or social groups) to make independent choices and impose those on the world, and hence, to alter the structures that shape and constrain people's opportunities and freedoms", while structures are defined as "patterns of social relations, beliefs and behaviours". It is further recognised that "factors and institutions such as class, religion, gender, ethnicity, networks and markets as well as cultural belief systems all sustain inequalities and social hierarchies and limit the opportunities that people have or perceive to have-thus significantly constraining their freedom or agency as well as the ideas, knowledge and self-consciousness". Final behavioural outcomes are thus a result of the tension between "agency" and "structures", and the ability of individuals to resist and even gradually modify the structures is explicitly taken into account.

In the different broader context of pro-social behaviour, Bašić and Verrina (2024) establish empirically that personal norms, together with social norms and monetary payoffs, are highly predictive of individuals' behaviour. Moreover, personal norms are found to be key drivers of behaviour, (i) distinct from and complementary to social norms across a series of economic contexts, and (ii) robust to exogenous increase in social norm salience. In other words, while social norms are important drivers of behaviour, there is scope for personal agency amidst normative structures.

It is in the spirit of these broad (and related) conceptual frameworks, that we define the aspiration and the self-assessed probability of migrating as a function of both personal and social norms, alongside a range of "pull" and "push" factors at the personal, household and community level, which are recognized to determine migration as follows:

$$[1] \quad Y_i(\text{migrate}) = \alpha + \beta_{\Delta S}\Delta S_i + \gamma X_i + \mu_j + \varepsilon_i$$

$$[2] \quad Y_i(\text{migrate}) = \alpha + \beta_{\Delta P}\Delta P_i + \gamma X_i + \mu_j + \varepsilon_i$$

where $\Delta SN_i = S_i(\text{migrate}) - S_i(\text{stay})$, $\Delta PN_i = P_i(\text{migrate}) - P_i(\text{stay})$, S_i is the rating provided by respondents in the social norm elicitation exercise to the corresponding hypothetical scenarios, while P_i is the corresponding rating in the personal norm elicitation Y_i is in alternative specifications the respondent's migration aspiration or the self-assessed migration probability of migrating, X_i is a set of individual and household control variables, μ_j captures geographic fixed effects and ε_i is the error term.

Following convention, *aspirations* are proxied as answers to the question "Thinking about the future, how willing or unwilling are you to migrate (or respectively: how willing are you

to let your child migrate): very unwilling, somewhat unwilling, neither willing nor unwilling, somewhat willing, very willing". The self-assessed probability of migrating is proxied as "Now tell us, how likely it is to migrate in the coming year (how likely is it for your child to migrate in the coming year): very unlikely, somewhat unlikely, neither likely nor unlikely, somewhat likely, very likely". Both questions are posed for both internal and external migration. It has been established that the latter might be a good predictor of actual migration, while the former are a well- established way of proxying migration aspirations (Tjaden, 2018; van Dalen et al, 2005; Dustmann, 2003).

Following Bašić and Verrina (2024), we also experiment with a specification that accounts for the simultaneous effect of personal and social norms on migration aspirations and migration probability as follows:

$$[3]\ Y_i(\text{migrate}) = \alpha + \beta_{\Delta P}\Delta PN_i + \beta_{\Delta P}\Delta SN_i + \gamma X_i + \mu_j + \varepsilon_i$$

Although figure 2 highlights high level of overlap of these preferences, the vif test statistics in specifications that include both measures is in the range of 2.9-3.5 allow for the simultaneous inclusion of these variables in the same regression. Further robustness checks will be provided in future versions of the study.

As indicated at the outset, we are also interested in exploring family influence in the decision making of young adults. Hence, we estimate an analogical set of regressions, with parental personal norms (PAR) replacing the social norm variable:

$$[4]\quad Y_i(\text{migrate}) = \alpha + \beta_{\Delta par}\Delta PAR_i + \gamma X_i + \mu_j + \varepsilon_i$$

$$[5]\quad Y_i(\text{migrate}) = \alpha + \beta_{\Delta P}\Delta P_i + \gamma X_i + \mu_j + \varepsilon_i$$

$$[6]\quad Y_i(\text{migrate}) = \alpha + \beta_{\Delta P}\Delta P_i + \beta_{\Delta Par}\Delta PAR_i + \gamma X_i + \mu_j + \varepsilon_i$$

In alternative specifications, we also account for the relative bargaining power of the parents in migration decisions.

4. Results

4.1. Social norms and personal norms

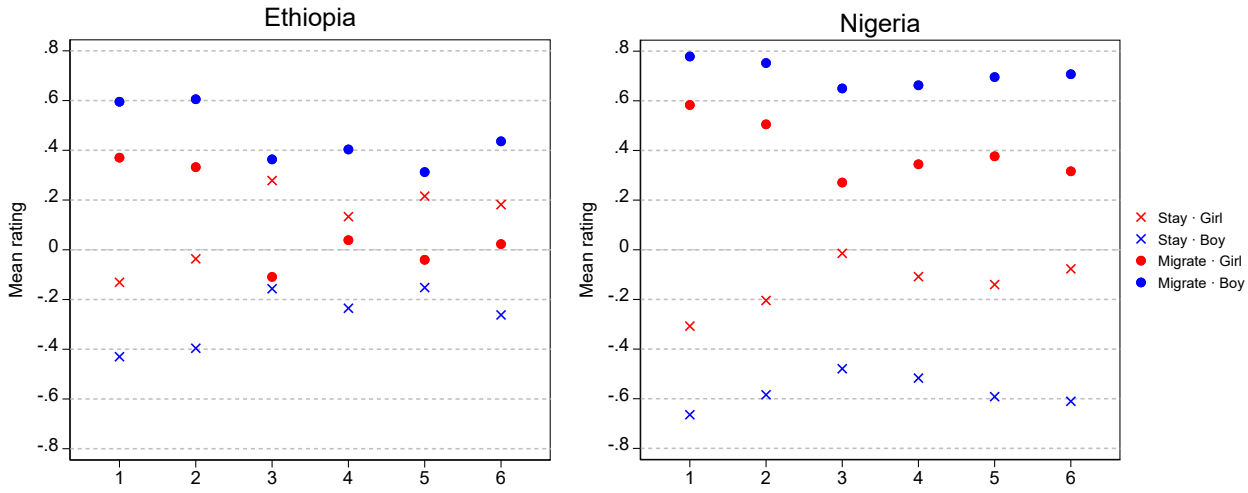
We start by analysing the social and personal norms: first by focusing on the parameters that we vary across the 12 vignettes and second by focusing on how personal norms differ across participants with different characteristics and demographics2.

Figure 1 presents average social norm ratings for the options to migrate and stay at home, respectively, for the six vignettes describing the hypothetical scenario of a girl (red markers) and the six vignettes describing the hypothetical scenario of a boy (blue markers), in Ethiopia (left graph) and Nigeria (right graph). Across the different scenarios, in both countries, (i) there is greater social acceptability of male compared to female migration and (ii) for young males, migration is always preferred to staying back home. Interestingly, while in the case of Nigeria migration is always preferred to staying also for girls, in the Ethiopian case, for several of the scenarios, migration is less preferred to staying back home: namely when the social network at the destination is weak, the purpose of migration is for self-realization, and when there is an expectation to get married within the next one year, indicating a much greater aversion to girl's migration in Ethiopia than in Nigeria. The aversion to girls' migration is largest in the case of weak networks, especially when migration is internal as opposed to abroad. This probably reflects the specific migration patterns in Ethiopia, whereby Adama is characterized by well- established contract migration for young women to the Gulf countries, while Kebribeya and Jigjiga are associated with male dominated (often irregular) migration that is considered much more dangerous for women. We shall explore these hypotheses more closely in future iterations. The corresponding results on personal norms, which are analogical, are presented in the Appendix.

[2] Note that while it is in principle possible to analyse how social norm measures differ across participants, this exercise is less meaningful because the measure is designed to capture community-level norms. Any systematic differences observed across individuals would therefore be difficult to interpret.

4.1.1 Social and personal norms variation by parameters of interest

Figure 1: Social norms in Ethiopia and Nigeria, average ratings



Notes: Average appropriateness of the option to stay and to migrate from the boy- and the girl-vignettes, respectively, in each of the six vignettes, as listed in Table 2. Standard errors clustered at the subject level are omitted for readability as these overlap with the symbols of their own mean estimates.

As a more statistically meaningful evaluation of the weight attributed to the different evaluation parameters, we report in Table 3 and Table 4 the results from a panel analysis of migrant norms, where the dependent variables are the social (Columns 1 and 2) and correspondingly-personal (Columns 3 and 4) ratings of the desirability of migrating. Each hypothetical scenario is treated as one wave and the explanatory variables are the corresponding vignettes assessed against their opposites (namely, internal versus external migration; strong, versus weak social network at destination, helping family versus personal realisation and marriage expectations versus no marriage expectations), individually and interacted by gender.

Girls' migration is viewed as less socially appropriate than boys' migration in both countries, both in terms of shared social norms and participants' personal norms. The difference, ranging from –0.274 to –0.371 across specifications, is substantial—roughly equivalent to a full step on the social-appropriateness scale.

In Nigeria, external migration is always viewed as more acceptable than internal migration, especially for girls (as seen by both the negative and significant coefficients of the internal migration variables and the negative and significant coefficients of the interaction term of this variable with the "girl" variable in both the social norms and personal norms equations). In Ethiopia, the picture is nuanced. The internal migration variable is negative and significant in the social norms equation and positive and significant in the personal norms equation, indicating differences in the personal and social acceptability of external (versus internal)

migration for the sample as a whole. As in the case of Nigeria, however, external migration for girls is always more desirable than for boys than internal migration, as indicated by the negative and significant interaction term of the "internal" and "girl" variables.

A weak social network at destination has a sizable negative influence on the appropriateness of migration in both countries in both the social norms and personal norms equations. All specifications also show that while the role of social network is important for boys, it is especially important for girls' migration. This gender pattern may reflect two distinct mechanisms: a stronger desire to monitor girls' movements, or heightened concerns that girls are more vulnerable to abuse. The available data do not allow us to distinguish between these interpretations, but both are consistent with the observed results.

Expecting to marry within the next year significantly reduces the perceived appropriateness of migrating in both countries in both the shared social norms and the personal norms regressions. This expectation lowers the appropriateness of migrating significantly more for girls than for boys. One possible explanation for this marked gender difference is that boys' mobility is not necessarily constrained by marriage and may even be linked to economic responsibilities that migration can help fulfill.

One of the most interesting cross-country and cross-gender patterns emerges with regards to reasons for migrating. In Nigeria, migration undertaken to realize one's personal potential—rather than to support one's family—is viewed as more socially appropriate, both in terms of shared social norms and individuals' personal norms. Notably, there is no difference between girls and boys in this regard. By contrast, in Ethiopia, supporting one's family is considered more socially appropriate than personal realization. This emphasis on family support does not vary by gender in the case of shared social norms. However, in the case of personal norms, migration for family support is deemed more appropriate than migration for personal realization only for boys. This pattern suggests that in Ethiopia men are considered primary bearers of family responsibility to a greater extent than women.

Table 3: Variations in personal and social norms, Ethiopia

	(1)	(2)	(3)	(4)
	Social norms		Personal norms	
internal	-0.0571***	-0.0175	0.0345**	0.0563***
	(0.0121)	(0.0130)	(0.0149)	(0.0160)
weak network	-0.303***	-0.219***	-0.317***	-0.227***
	(0.0113)	(0.0123)	(0.0128)	(0.0140)
personal	-0.0608***	-0.0736***	-0.0354**	-0.0681***
	(0.0143)	(0.0184)	(0.0143)	(0.0185)
marriage	-0.275***	-0.174***	-0.203***	-0.138***
	(0.0156)	(0.0166)	(0.0152)	(0.0174)
girl	-0.346***	-0.206***	-0.371***	-0.255***
	(0.0112)	(0.0154)	(0.0122)	(0.0179)
internal#girl		-0.0794***		-0.0437**
		(0.0166)		(0.0175)

weak network#girl		-0.167***		-0.181***
		(0.0169)		(0.0180)
personal#girl		0.0257		0.0655***
		(0.0208)		(0.0216)
marriage#girl		-0.203***		-0.130***
		(0.0219)		(0.0236)
_cons	0.678***	0.608***	0.614***	0.556***
	(0.0188)	(0.0184)	(0.0205)	(0.0202)
Observations	14256	14256		
R-squared	0.094	0.097		
Clusters	1189	1189		

Robust standard errors, clustered at the subject level, in parentheses
*** p<0.01, ** p<0.05, * p<0.1.

Table 4: Variations in personal and social norms, Nigeria

	(1)	(2)	(3)	(4)
	Social norms		Personal norms	
internal	-0.0476***	-0.0194**	-0.0446***	-0.0252***
	(0.00773)	(0.00884)	(0.00794)	(0.00906)
weak network	-0.173***	-0.109***	-0.199***	-0.129***
	(0.00989)	(0.0106)	(0.0109)	(0.0118)
personal	0.0304**	0.0297**	0.0663***	0.0586***
	(0.0115)	(0.0131)	(0.0112)	(0.0128)
marriage	-0.167***	-0.0679***	-0.134***	-0.0429***
	(0.0132)	(0.0134)	(0.0119)	(0.0123)
girl	-0.308***	-0.193***	-0.274***	-0.163***
	(0.0108)	(0.0141)	(0.0108)	(0.0133)
internal#girl		-0.0564***		-0.0388***
		(0.0140)		(0.0138)
weak network#girl		-0.128***		-0.141***
		(0.0163)		(0.0164)
personal#girl		0.00146		0.0155
		(0.0195)		(0.0192)
marriage#girl		-0.198***		-0.183***
		(0.0229)		(0.0209)
_cons	0.833***	0.775***	0.848***	0.793***
	(0.0109)	(0.0106)	(0.0106)	(0.0107)
Observations	14045	14045	14086	14086
R-squared	0.093	0.097	0.082	0.086
Clusters	1174	1174	1174	1174

Robust standard errors, clustered at the subject level, in parentheses
*** p<0.01, ** p<0.05, * p<0.1.

4.1.2. Personal norm variation by rater characteristics

The results in Tables 5-8 delve deeper into the variability of personal norms by rater characteristics, with the first two tables exploring these associations for the girl vignettes and the boy vignettes in Nigeria, respectively, and the second two the corresponding girl and boy vignettes in Ethiopia.

In the case of Nigeria (Tables 7 and 8), we observe few gender rater identity based differences in the migration acceptability. The only notable exception is that fathers are typically less lenient towards girl migration compared to girls themselves (specifically, the coefficient of the father variable, vis-à-vis the excluded girl category, is negative and significant in four out of six specifications). Boys are also less lenient towards girls' migration compared to girls themselves in the cases of marriage expectations and external migration with weak social networks at destination. In the case of Ethiopia (Tables 5 and 6) there is greater variability of personal norms by rater characteristics than in the case of Nigeria. Both mothers and fathers see the migration of their children in more negative light than the children themselves, and boys feel more negatively about the internal migration of girls compared to girls themselves.

In both countries, the risk aversion level of the rater is typically negatively associated with how appropriate (s)he judges migration, especially in the case of girl migration.

The employment status of the rater (compared to the omitted variable of unemployment) has positive and significant implications for the acceptability of boy's migration across the different specifications (Table 6), while this is true for only three of the specifications in the girl-related scenarios (Table 5). It is difficult to explain this pattern. On the one hand, it is possible that girl migration is seen as a buffer to economically weak households, while boys migration is driven by both push and pull factors. However, this is not consistent with the earlier observation that boys are seen as family providers more than girls. We would need to rely on qualitative data to explore this finding more deeply in the future.

Schooling is unrelated to personal norms about migration in most specifications, although a negative and significant coefficient in three of the specifications in Tables 7 and 8 indicates that higher education reduces the normative value of migration in Nigeria (compared to Ethiopia, where none of this variable's coefficients are significant). In the case of Ethiopia, there is significantly lower acceptability of girl's migration in Jigjiga and Kebribeya than in Adama.

Table 5. Personal norms and rater characteristics – GIRL VIGNETTES, Ethiopia

VARIABLES	1	2	3	4	5	6
Boy	-0.0850	-0.130**	-0.185***	-0.0762	-0.0484	-0.0800
	(0.0598)	(0.0548)	(0.0574)	(0.0620)	(0.0606)	(0.0632)
Mother	-0.342***	-0.309***	-0.369***	-0.331***	-0.230**	-0.220*
	(0.113)	(0.0956)	(0.0982)	(0.109)	(0.110)	(0.119)
Father	-0.586***	-0.466***	-0.565***	-0.466***	-0.324**	-0.270**
	(0.125)	(0.112)	(0.110)	(0.123)	(0.126)	(0.133)
age	0.00291	0.00543*	0.0103***	0.00566*	0.00476	-0.00350
	(0.00346)	(0.00308)	(0.00297)	(0.00337)	(0.00339)	(0.00364)
school	0.0287	-0.0444**	-0.0107	0.0269	0.0432*	-0.0200
	(0.0253)	(0.0220)	(0.0223)	(0.0247)	(0.0238)	(0.0273)
risk_aversion	-0.0130	-0.0914***	-0.0814***	-0.0687***	-0.0773***	-0.0503**
	(0.0212)	(0.0214)	(0.0172)	(0.0187)	(0.0186)	(0.0221)
occupation_working	0.108*	0.193***	0.117**	0.0950*	0.0522	0.165***
	(0.0550)	(0.0493)	(0.0478)	(0.0516)	(0.0507)	(0.0558)
occupation_studying	0.0200	0.105*	0.112*	0.0608	0.0488	0.0998
	(0.0633)	(0.0598)	(0.0614)	(0.0676)	(0.0659)	(0.0681)
religion_christian	0.00344	0.211***	0.168**	0.0871	0.123	0.0751
	(0.0848)	(0.0644)	(0.0783)	(0.0942)	(0.0932)	(0.0806)
self_migrated	0.0719	0.000488	0.133**	0.104*	0.172***	0.0938
	(0.0611)	(0.0579)	(0.0567)	(0.0621)	(0.0632)	(0.0665)
no_migrants_parent	0.00451	-0.0285	-0.0203	0.0385	-0.0266	-0.00447
	(0.0273)	(0.0215)	(0.0249)	(0.0288)	(0.0278)	(0.0300)
Jigjiga city	-0.566***	-0.307***	-0.565***	-0.524***	-0.636***	-0.150
	(0.0950)	(0.0868)	(0.0837)	(0.0972)	(0.0967)	(0.0932)
Kebribrey city	-0.222**	-0.247***	-0.366***	-0.128	-0.320***	0.204**
	(0.100)	(0.0818)	(0.0903)	(0.105)	(0.105)	(0.0946)
Constant	0.507***	0.643***	0.0726	0.0634	0.0871	0.302**
	(0.150)	(0.128)	(0.127)	(0.146)	(0.142)	(0.153)
Observations	1,171	1,172	1,172	1,172	1,172	1,172
R-squared	0.151	0.205	0.273	0.184	0.239	0.075
Clusters	608	608	608	608	608	608
p(Mother=Boy)	0.0192	0.0595	0.0547	0.0166	0.0849	0.221
p(Father=Mother)	0.000822	0.0125	0.000852	0.0375	0.139	0.479
p(Father=Boy)	3.35e-05	0.00250	0.000363	0.00105	0.0213	0.135
d(Mother-Boy)	-0.257	-0.179	-0.184	-0.255	-0.181	-0.140
d(Father-Mother)	-0.244	-0.156	-0.196	-0.134	-0.0945	-0.0506
d(Father-Boy)	-0.501	-0.335	-0.380	-0.389	-0.276	-0.190

Robust standard errors, clustered at the household level, in parentheses
*** p<0.01, ** p<0.05, * p<0.1. The following dummy variables have rater being girl as the omitted category: Boy, Mother, Father. Religion_christian is 1 if Christian and 0 if Muslim.

Table 6. Personal norms and rater characteristics – BOY VIGNETTES, Ethiopia

VARIABLES	1	2	3	4	5	6
Boy	0.00878	-0.0539	-0.0711	0.0558	-0.0192	0.0134
	(0.0509)	(0.0505)	(0.0555)	(0.0571)	(0.0601)	(0.0551)
Mother	-0.243**	-0.283***	-0.501***	-0.410***	-0.325***	-0.168
	(0.106)	(0.0810)	(0.109)	(0.111)	(0.111)	(0.109)
Father	-0.380***	-0.387***	-0.539***	-0.543***	-0.386***	-0.237*
	(0.121)	(0.0974)	(0.126)	(0.128)	(0.128)	(0.123)
age	3.32e-05	0.00882***	0.0120***	0.00823**	0.00473	-0.00121
	(0.00354)	(0.00255)	(0.00344)	(0.00351)	(0.00349)	(0.00352)
school	-0.0270	-0.0221	-0.0347	0.00532	0.0141	-0.0265
	(0.0264)	(0.0228)	(0.0237)	(0.0269)	(0.0258)	(0.0254)
risk_aversion	-1.10e-06	-0.00367	-0.0103	0.0103	-0.151***	-0.0835***
	(0.0230)	(0.0216)	(0.0223)	(0.0225)	(0.0236)	(0.0218)
occupation_working	0.219***	0.236***	0.214***	0.264***	0.155***	0.213***
	(0.0558)	(0.0472)	(0.0530)	(0.0551)	(0.0565)	(0.0550)
occupation_studying	0.188***	0.198***	0.204***	0.255***	0.146**	0.150**
	(0.0549)	(0.0555)	(0.0609)	(0.0613)	(0.0639)	(0.0590)
religion_christian	-0.0477	0.0207	0.108	0.0603	0.0516	-0.0421
	(0.0641)	(0.0536)	(0.0775)	(0.0909)	(0.0923)	(0.0722)
self_migrated	0.00904	-0.0154	0.0642	0.0410	0.192***	0.0275
	(0.0659)	(0.0545)	(0.0633)	(0.0668)	(0.0630)	(0.0637)
no_migrants_parent	0.0389*	0.0193	0.0205	0.0135	-0.00556	-0.0227
	(0.0236)	(0.0190)	(0.0242)	(0.0280)	(0.0276)	(0.0283)
Jigjiga city	-0.308***	-0.242***	-0.255***	-0.105	-0.189*	-0.129
	(0.0825)	(0.0767)	(0.0931)	(0.102)	(0.105)	(0.0874)
Kebribrey city	-0.0492	-0.0854	-0.160*	0.0769	0.0206	0.159*
	(0.0805)	(0.0679)	(0.0920)	(0.103)	(0.102)	(0.0854)
Constant	0.699***	0.469***	0.236*	0.0264	0.465***	0.689***
	(0.145)	(0.122)	(0.138)	(0.148)	(0.154)	(0.146)
Observations	1,172	1,172	1,172	1,172	1,172	1,171
R-squared	0.087	0.087	0.101	0.069	0.134	0.077
Clusters	608	608	608	608	608	608
p(Mother=Boy)	0.0153	0.00513	3.06e-05	2.21e-05	0.00531	0.0841
p(Father=Mother)	0.0496	0.0595	0.553	0.0645	0.391	0.328
p(Father=Boy)	0.00114	0.000440	7.82e-05	1.68e-06	0.00318	0.0360
d(Mother-Boy)	-0.252	-0.230	-0.429	-0.466	-0.306	-0.181
d(Father-Mother)	-0.137	-0.104	-0.0387	-0.133	-0.0612	-0.0690
d(Father-Boy)	-0.389	-0.333	-0.468	-0.599	-0.367	-0.250

Robust standard errors, clsutered at the household level, in parentheses
*** p<0.01, ** p<0.05, * p<0.1. The following dummy variables have rater being girl as the omitted category: Boy, Mother, Father. Religion_christian is 1 if Christian and 0 if Muslim.

Table 7. Personal norms and rater characteristics – GIRL VIGNETTES , Nigeria

VARIABLES	1	2	3	4	5	6
Boy	-0.0207	-0.0598	-0.0212	-0.0935*	-0.0233	-0.0918*
	(0.0390)	(0.0433)	(0.0537)	(0.0525)	(0.0491)	(0.0531)
Mother	0.0426	-0.0264	-0.00761	-0.0265	0.0312	-0.0526
	(0.0430)	(0.0475)	(0.0559)	(0.0550)	(0.0531)	(0.0559)
Father	-0.110**	-0.126***	-0.0191	-0.0827	0.00856	-0.114**
	(0.0431)	(0.0485)	(0.0570)	(0.0555)	(0.0548)	(0.0547)
age	-0.000126	-0.000149*	3.33e-05	-2.18e-05	-4.47e-05	-0.000187
	(0.000103)	(8.09e-05)	(7.46e-05)	(9.06e-05)	(8.74e-05)	(0.000138)
school	-0.00516	-0.0436**	-0.0222	0.00803	0.0284	0.0385
	(0.0220)	(0.0222)	(0.0280)	(0.0279)	(0.0275)	(0.0279)
risk_aversion	-0.0401***	-0.0419***	-0.0782***	-0.0813***	-0.0540***	-0.0107
	(0.0134)	(0.0152)	(0.0185)	(0.0172)	(0.0167)	(0.0177)
occupation_working	-0.00199	0.0577	0.156***	0.191***	0.0128	0.0369
	(0.0436)	(0.0490)	(0.0580)	(0.0555)	(0.0567)	(0.0567)
occupation_studying	0.0416	-0.0134	0.120*	0.142**	0.0679	0.0732
	(0.0485)	(0.0496)	(0.0631)	(0.0592)	(0.0590)	(0.0617)
religion_christian	0.0877**	0.107***	0.125**	0.143***	0.118**	0.144***
	(0.0400)	(0.0406)	(0.0504)	(0.0507)	(0.0494)	(0.0537)
self_migrated	0.0371	0.0419	-0.0379	0.000962	0.0211	0.0196
	(0.0321)	(0.0350)	(0.0432)	(0.0431)	(0.0405)	(0.0435)
no_migrants_parent	-0.00871	-0.000473	0.00705	-0.000337	0.000810	0.00190
	(0.0123)	(0.0101)	(0.0130)	(0.0137)	(0.0139)	(0.0142)
Osogbo	0.238***	0.309***	0.393***	0.390***	0.307***	0.188***
	(0.0322)	(0.0345)	(0.0432)	(0.0430)	(0.0420)	(0.0452)
Constant	0.562***	0.566***	0.126	0.0727	0.160	0.117
	(0.0950)	(0.105)	(0.134)	(0.133)	(0.131)	(0.135)
Observations	1,151	1,151	1,150	1,151	1,151	1,150
R-squared	0.089	0.109	0.123	0.138	0.090	0.046
Clusters	597	597	597	597	597	597
p(Mother=Boy)	0.181	0.515	0.831	0.280	0.374	0.527
p(Father=Mother)	0.000326	0.0211	0.830	0.281	0.659	0.254
p(Father=Boy)	0.0590	0.170	0.970	0.849	0.542	0.697
d(Mother-Boy)	0.0633	0.0334	0.0136	0.0670	0.0545	0.0393
d(Father-Mother)	-0.152	-0.0993	-0.0115	-0.0562	-0.0226	-0.0616
d(Father-Boy)	-0.0888	-0.0659	0.00212	0.0108	0.0319	-0.0224

Robust standard errors, clsutered at the household level, in parentheses
*** p<0.01, ** p<0.05, * p<0.1. The following dummy variables have rater being girl as the omitted category: Boy, Mother, Father. Religion_christian is 1 if Christian and 0 if Muslim.

Table 8. Personal norms and rater characteristics – BOY VIGNETTES, Nigeria

VARIABLES	1	2	3	4	5	6
Boy	0.0418	0.0408	0.0571	0.0434	0.0583*	0.0158
	(0.0300)	(0.0319)	(0.0407)	(0.0395)	(0.0332)	(0.0322)
Mother	0.0412	0.0713**	0.0261	0.0404	0.0444	0.0128
	(0.0344)	(0.0325)	(0.0485)	(0.0474)	(0.0407)	(0.0398)
Father	-0.00252	-0.0257	-0.0212	0.0133	0.0225	-0.0350
	(0.0339)	(0.0371)	(0.0487)	(0.0476)	(0.0379)	(0.0390)
age	-5.96e-05	-3.53e-05	5.63e-05	-7.46e-05	3.09e-05	-0.000287***
	(4.66e-05)	(5.78e-05)	(9.20e-05)	(8.02e-05)	(7.50e-05)	(8.06e-05)
school	-0.0498***	-0.0457***	-0.0251	-0.0252	-0.0130	-0.0191
	(0.0157)	(0.0169)	(0.0226)	(0.0220)	(0.0189)	(0.0199)
risk_aversion	-0.0144	-0.0171*	-0.0199	-0.0366***	-0.0149	0.00291
	(0.0106)	(0.00998)	(0.0136)	(0.0142)	(0.0113)	(0.0113)
occupation_working	-0.0349	-0.0423	0.0746	0.0761	-0.0465	-0.0354
	(0.0297)	(0.0322)	(0.0482)	(0.0476)	(0.0353)	(0.0343)
occupation_studying	-0.0162	-0.0352	0.0845*	0.126***	0.0384	-0.0261
	(0.0369)	(0.0359)	(0.0500)	(0.0489)	(0.0370)	(0.0389)
religion_christian	0.00229	0.000585	0.0199	-0.000134	-0.0291	0.0296
	(0.0260)	(0.0281)	(0.0346)	(0.0335)	(0.0301)	(0.0316)
self_migrated	0.00832	0.0288	0.0178	0.00246	0.0507*	-0.00641
	(0.0233)	(0.0229)	(0.0336)	(0.0336)	(0.0288)	(0.0291)
no_migrants_parent	-0.00666	-0.00971	-0.00686	-0.000106	-0.00220	0.0119
	(0.00633)	(0.00742)	(0.00974)	(0.00892)	(0.00980)	(0.00919)
Osogbo	0.195***	0.212***	0.275***	0.279***	0.222***	0.226***
	(0.0242)	(0.0264)	(0.0309)	(0.0311)	(0.0294)	(0.0266)
Constant	0.915***	0.860***	0.532***	0.567***	0.673***	0.704***
	(0.0687)	(0.0680)	(0.100)	(0.100)	(0.0799)	(0.0854)
Observations	1,151	1,151	1,151	1,151	1,151	1,151
R-squared	0.077	0.092	0.084	0.097	0.085	0.082
Clusters	597	597	597	597	597	597
p(Mother=Boy)	0.986	0.359	0.505	0.948	0.742	0.938
p(Father=Mother)	0.154	0.00282	0.260	0.516	0.556	0.192
p(Father=Boy)	0.195	0.0629	0.0790	0.517	0.377	0.149
d(Mother-Boy)	-0.000595	0.0305	-0.0310	-0.00303	-0.0139	-0.00293
d(Father-Mother)	-0.0438	-0.0970	-0.0474	-0.0271	-0.0219	-0.0478
d(Father-Boy)	-0.0444	-0.0665	-0.0783	-0.0301	-0.0358	-0.0508

Robust standard errors, clsutered at the household level, in parentheses
*** p<0.01, ** p<0.05, * p<0.1. The following dummy variables have rater being girl as the omitted category: Boy, Mother, Father. Religion_christian is 1 if Christian and 0 if Muslim.

4.2. Migration aspirations and estimated probability to migrate

Next, we proceed to linking social norms to aspirations and the probability of migrating. We begin by reporting the results from equations 1–3 separately for each of the four dependent variables—respondents' migration aspirations for internal and external migration, as well as their self-assessed probabilities of migrating internally and externally for Nigeria and Ethiopia, respectively. The key social and personal norm related coefficients and the corresponding robust standard errors are reported in Table 9, while the full set of results is reported in Tables A1-A8 in the appendix.

A first key observation is that, in both countries, personal and social norms are positively associated with migration aspirations and with the self-assessed migration probabilities, consistent with equations (1) and (2). The main exception is internal migration in the Nigerian sample, where neither type of norm is significantly related to the stated probability of moving internally.3

Before interpreting the results of equation (3), we verify that there is meaningful variation between personal and social norm measures. Following the approach of Bašić and Verrina (2024), this diagnostic reassures us that analysing both measures jointly is appropriate. Figures 2 and 3 show that the two measures coincide for roughly 50–60 percent of respondents, leaving a sufficiently large share of respondents for whom the measures differ.

In both countries, when personal and social norms are included simultaneously in the specification, only the personal-norm measure retains its sign and statistical significance. This indicates that personal normative beliefs are the dominant predictor of migration intentions once community-level norms are controlled for. In Ethiopia, we additionally observe a sign reversal for the social-norm coefficient in the external-migration aspiration and probability equations. One possible explanation is that, in the joint model, the social-norm coefficient reflects the relative difference between an individual's personal norms and those prevailing in the community. Individuals whose personal norms are weaker than their community's may fall into this residual category and, correspondingly, report lower external-migration aspirations.

In so far as the results on the full set of regressors (Tables A1-A8) is concerned, risk aversion is a consistently important predictor of aspirations and probability of migrating in both countries, consistently with findings in earlier studies.

In Nigeria, boys are found to have lower internal migration aspirations than girls. Girls' mothers have lower aspirations with respect to girl's internal migration compared to girls themselves (difference of -0.195 in equation 1). However, boys' mothers have greater

[3] Internal migration was defined as the probability of moving to the national capital, which provides a clear and comparable measure of meaningful internal mobility across the two countries. This definition remains appropriate: in both contexts, the capital concentrates administrative, educational, and labour-market opportunities. However, most Nigerian respondents in our sample already reside in sizeable urban areas, meaning that relocating to the capital may not represent as large a change in economic prospects as it does for Ethiopian respondents or as external migration does in general. As a result, internal migration in Nigeria constitutes a less transformative margin, which likely reduces the extent to which personal and social norms explain variation in internal-migration intentions.

aspirations of their boy's internal migration compared to boy's themselves (difference of 0.167 in equation 1). No large differences are found between fathers' aspirations of internal migration and those of their children. We also find no differences across parents and children regarding aspirations of external migration or their estimated probability of migration.

In Ethiopia, both mothers and fathers (irrespective of the gender of the child) assess the probability of internal migration as low. Furthermore, both boys' mothers and fathers have lower aspirations for the internal migration of their child in comparison to boys themselves (difference of -0.371 and -0.345, respectively), while for girls only the difference of the mother is significant (difference of -0.572). In the case of external migration, only the difference between the girl's mother's aspirations and those of the girl is significant (difference of -0.431).

Looking across the full set of specifications, an especially interesting pattern emerges regarding gender differences in internal-migration aspirations. In both countries, the coefficient on the girl indicator becomes more negative and stronger in significance once social norms are incorporated: in Ethiopia it shifts from –0.176 to –0.294, and in Nigeria from –0.199 to –0.265. This widening of the gender gap after controlling for social norms aligns with our earlier finding that social norms surrounding girls' migration are more restrictive than those for boys, particularly with respect to internal migration. That the gender coefficient becomes more negative when social norms are included underscores the extent to which gendered normative expectations shape observed differences in migration aspirations.

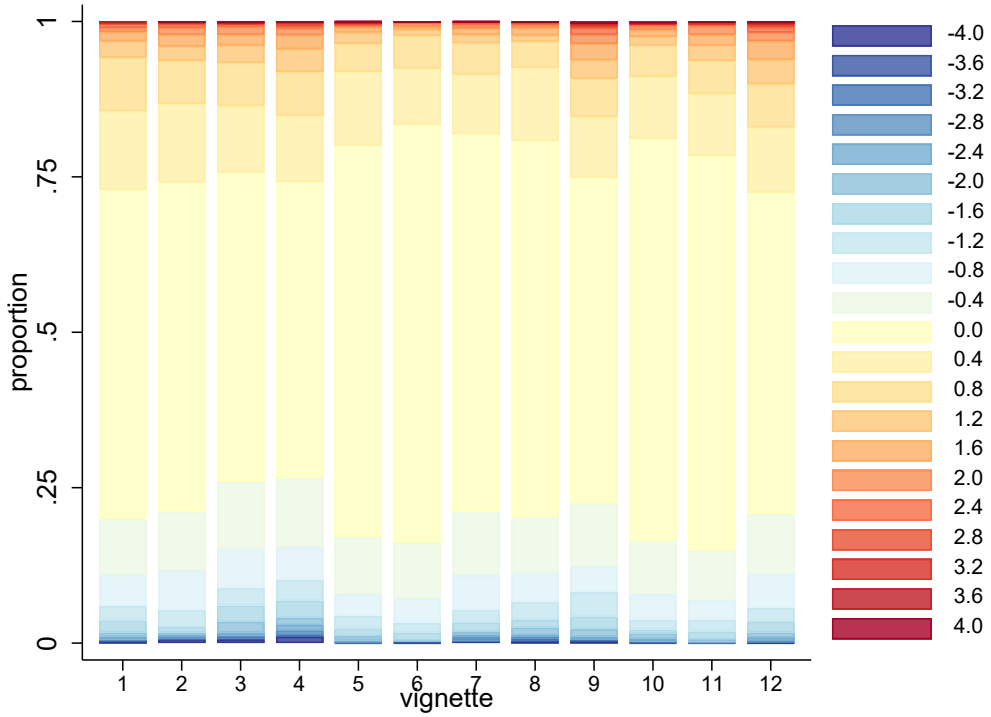
Table 9: Linking social and personal norms to migration aspirations and probabilities

	Nigeria			Ethiopia		
	Aspirations- Internal					
	1	2	3	1	2	3
ΔSN_i	0.130***		0.0272	0.269***		0.0129
	(0.0421)		(0.0620)	(0.0387)		(0.0635)
ΔPN_i		0.154***	0.135**		0.289***	0.278***
		(0.0423)	(0.0632)		(0.0348)	(0.0584)
	Aspirations-External					
ΔSN_i	0.163***		-0.0155	0.213***		-0.269***
	(0.0419)		(0.0579)	(0.0357)		(0.0645)
ΔPN_i		0.225***	0.239***		0.347***	0.527***
		(0.0397)	(0.0554)		(0.0319)	(0.0551)
	Probability-Internal					
ΔSN_i	0.0659		0.0256	0.119***		-0.0425
	(0.0452)		(0.0681)	(0.0350)		(0.0685)
ΔPN_i		0.0709	0.0529		0.143***	0.176***
		(0.0451)	(0.0680)		(0.0324)	(0.0646)
	Probability-External					
ΔSN_i	0.132***		-0.0331	0.134***		-0.156***
	(0.0496)		(0.0626)	(0.0322)		(0.0594)
ΔPN_i		0.196***	0.221***		0.212***	0.317***
		(0.0466)	(0.0591)		(0.0286)	(0.0520)

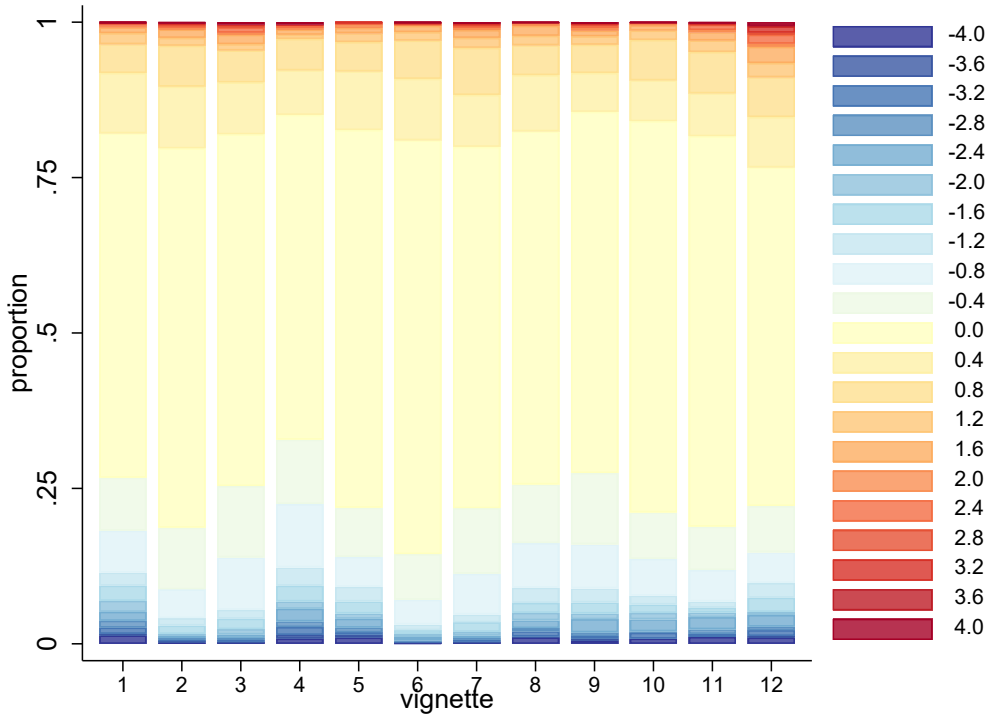
Robust standard errors, clustered at the household level, in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The regressions control for the gender of the respondent, age, schooling, risk aversion, working status, religion and location

Figure 2: Individual differences in between ΔPN_i and ΔSN_i in each of the 12 vignettes

Nigeria



Ethiopia



4.2.1. Influence of the parents on the child's probability to migrate

Next, we turn to the estimates of equations 4-6. Table 10 reports the results on the role of parental norms, interacted with parental bargaining power, while the estimates in Table 11 delve into child gender differences in parental influence. The full set of results is once again reported in the Appendix (Tables A9-A16). The results are analogical to those related to the role of personal and social norms in that child personal norms continue to be strongly associated with the probability of migrating, after accounting for external influences, especially in the case of international migration.

Nevertheless, there are interesting cross-country differences, particularly related to the parent's gender. In the case of Nigeria, mothers appear to be more influential. In the case of internal migration, the mother's personal preference swamps the effect of the child's personal preference the mother's bargaining- power- weighted personal preference continues to have significant effect on external migration, after accounting for child's personal preferences (Table 10) and mother's personal preferences lower the international migration probability of girls, compared to boys (Table 11). In the case of Ethiopia, the results are less clear cut. The only finding that stands out appears to be the fact that fathers with lower bargaining power have more positive influence on the child's migration probability than fathers with higher bargaining power (Table 10). Taken together, and despite contextual differences, the results are consistent with recent literature on personal agency in the context of normative structures that shape and constrain personal freedoms.

Table 10: The role of parental norms and bargaining power

	Nigeria					Ethiopia				
	Migration probability-Internal									
	1	2	3	4	5	1	2	3	4	5
ΔPN_i	0.0118			-0.0306	-0.0423	0.166***			0.120**	0.123**
	(0.0682)			(0.0739)	(0.0734)	(0.0450)			(0.0563)	(0.0559)
ΔPN_i_parent		-0.0212	-0.0483	-0.0112	-0.0363		0.168***	0.217**	0.103	0.151
		(0.0870)	(0.0911)	(0.0907)	(0.0943)		(0.0631)	(0.0895)	(0.0716)	(0.0954)
ΔPN_i_mother		0.220*	0.241*	0.220*	0.243**		-0.0277	-0.0771	-0.0241	-0.0756
		(0.119)	(0.123)	(0.120)	(0.123)		(0.0787)	(0.0997)	(0.0785)	(0.0985)
ΔPN_i_parent*fatherdecides			0.0858		0.0916			-0.111		-0.116
			(0.114)		(0.115)			(0.107)		(0.108)
ΔPN_i_mother*motherdecides			0.0411		0.0437			0.0283		0.0319
			(0.0378)		(0.0375)			(0.0332)		(0.0329)
	Migration probability-External									
ΔPN_i	0.203***			0.160**	0.141*	0.233***			0.208***	0.220***
	(0.0705)			(0.0755)	(0.0757)	(0.0391)			(0.0470)	(0.0473)
ΔPN_i_parent		0.167**	0.142*	0.111	0.0915		0.0982*	0.215***	0.0199	0.155**
		(0.0783)	(0.0816)	(0.0814)	(0.0844)		(0.0510)	(0.0771)	(0.0560)	(0.0782)
ΔPN_i_mother		0.0134	0.0404	0.0231	0.0493		0.0411	-0.0758	0.0321	-0.108
		(0.110)	(0.114)	(0.108)	(0.112)		(0.0662)	(0.0874)	(0.0660)	(0.0862)

ΔPN_i_parent*fatherdecides	0.0786	0.0812	-0.262***	-0.312***
	(0.0984)	(0.0974)	(0.0907)	(0.0923)
ΔPN_i_mother*motherdecides	0.100***	0.0909***	0.00684	-0.000781
	(0.0325)	(0.0322)	(0.0347)	(0.0338)

Robust standard errors, clustered at the household level, in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The regressions control for the gender of the respondent, age, schooling, risk aversion, working status, religion and location

Table 11: The role of parental norms, bargaining power and child gender

	Nigeria			Ethiopia		
	Probability-Internal					
	1	2	3	1	2	3
ΔPN_i	0.00967		-0.00368	0.111		0.0168
	(0.0975)		(0.108)	(0.0709)		(0.102)
ΔPN_i_parent		-0.0394	-0.0388		0.183**	0.177
		(0.118)	(0.129)		(0.0881)	(0.111)
Girl#ΔPN_i_parent		0.0915	0.0997		-0.0384	-0.124
		(0.168)	(0.180)		(0.126)	(0.146)
ΔPN_i_mother		0.165	0.164		-0.0544	-0.0502
		(0.196)	(0.197)		(0.119)	(0.120)
Girl# ΔPN_i_mother		-0.0459	-0.0433		0.0604	0.0438
		(0.257)	(0.259)		(0.163)	(0.162)
	Probability-External					
	1	2	3	1	2	3
ΔPN_i	0.405***		0.364***	0.208***		0.238***
	(0.119)		(0.125)	(0.0598)		(0.0765)
ΔPN_i_parent		0.179	0.0446		0.0983	-0.00745
		(0.116)	(0.119)		(0.0670)	(0.0825)
Girl#ΔPN_i_parent		0.0154	0.125		-0.00232	0.0432
		(0.150)	(0.159)		(0.101)	(0.113)
ΔPN_i_mother		0.318	0.375*		-0.0459	-0.0539
		(0.207)	(0.207)		(0.0966)	(0.0982)
Girl# ΔPN_i_mother		-0.425*	-0.483*		0.151	0.144
		(0.250)	(0.250)		(0.137)	(0.136)

Robust standard errors, clustered at the household level, in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The regressions control for the gender of the respondent, age, schooling, risk aversion, working status, religion and location

5. Concluding remarks

The decision of individuals to migrate, or of households to send family members abroad, has long been central to research across the social sciences, with authors focusing on either pecuniary motivations or collective family decisions. The perpetuation of migrant flows has been attributed to either the establishment of specific migrant networks or persistent structural issues in the global economy. Although social norms have been shown to be important drivers of individual behaviour, far less is known about the role of social norms, or about the tension between social expectations and individual agency in migration choices, the sole exceptions being studies on the transmission of social norms from the destination to the host country of the migrants or highly context-specific qualitative studies on social drivers of migration.

Using large vignette-based survey with young people aged 18-25 and one of their parents, we first elicit social norms and identify how they vary across gender, migration type (internal versus international), reasons for migrating (supporting the family versus personal advancement), the strength of social networks at the destination, and marriage-related pressures, and how they differ within and across households and then examine the association of social and personal norms related to migration with migration aspirations and the self-assessed migration probability of young adults in Ethiopia and Nigeria. We document pronounced gender patterns in both settings, with social norms generally favouring male migration and varying by strength of the migrant network, purpose of migrating, internal versus external destination and marriage pressure. Although both social and parental norms are positively associated with migration aspirations and self-reported likelihoods of migrating, the young adults' personal norms often overpower those of the parents and the community.

While our main contribution is this to highlight the real, though limited ability of individuals to make independent choices within normative structures that shape and constrain people's opportunities and freedoms, we are also among the first to document social norms in a very structured manner and examine how they differ across a variety a factors and across different settings. We document that norms can be both constraining and liberating for the same sets of individuals. For example, while there is greater pressure on young women to stay back home for marriage or network-related security reasons, and while norms are more constraining for young women than for young men, there is (on average) also less pressure on women to migrate for the sheer purpose of supporting the family. It is also important to note that personal norms and agency vary by level of human capital and hence policies aimed at empowering individuals in the process of migrant aspiration formation should take this seriously into account.

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Appendix

Table A1. Aspirations internal, Nigeria

	1	2	3	4
ΔSN_i		0.130***		0.0272
		(0.0421)		(0.0620)
ΔPN_i			0.154***	0.135**
			(0.0423)	(0.0632)
Boy	-0.199**	-0.265***	-0.284***	-0.285***
	(0.0943)	(0.0949)	(0.0946)	(0.0949)
Mother on girl	-0.195*	-0.183*	-0.177	-0.180*
	(0.107)	(0.109)	(0.108)	(0.109)
Mother on boy	-0.0332	-0.114	-0.134	-0.137
	(0.134)	(0.135)	(0.134)	(0.134)
Father on girl	-0.135	-0.110	-0.125	-0.120
	(0.111)	(0.111)	(0.110)	(0.110)
Father on boy	-0.146	-0.198*	-0.210*	-0.213*
	(0.114)	(0.114)	(0.113)	(0.113)
age	0.000365***	0.000360***	0.000386***	0.000380***
	(0.000109)	(0.000103)	(0.000123)	(0.000119)
school	-0.00950	-0.00987	-0.00704	-0.00846
	(0.0506)	(0.0500)	(0.0497)	(0.0498)
risk_aversion	-0.248***	-0.230***	-0.230***	-0.229***
	(0.0363)	(0.0362)	(0.0355)	(0.0359)
working	0.0416	0.0257	0.0321	0.0280
	(0.0826)	(0.0826)	(0.0822)	(0.0823)
christian	-0.00556	-0.0170	-0.0191	-0.0171
	(0.0801)	(0.0796)	(0.0790)	(0.0796)
Osogbo	0.378***	0.316***	0.301***	0.297***
	(0.0716)	(0.0756)	(0.0744)	(0.0755)
_cons	4.713***	4.619***	4.596***	4.594***
	(0.213)	(0.215)	(0.214)	(0.215)
Observations	1153	1148	1153	1148
R-squared	0.095	0.104	0.108	0.108
Clusters	599	599	599	599

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A2. Probability internal, Nigeria

		1	3	5
ΔSN_i		0.0659		0.0256
		(0.0452)		(0.0681)
ΔPN_i			0.0709	0.0529
			(0.0451)	(0.0680)
Boy	-0.00712	-0.0369	-0.0462	-0.0450
	(0.104)	(0.108)	(0.107)	(0.108)
Mother on girl	0.0618	0.0739	0.0708	0.0753
	(0.107)	(0.109)	(0.108)	(0.109)
Mother on boy	0.181	0.140	0.134	0.131
	(0.145)	(0.149)	(0.148)	(0.149)
Father on girl	0.0719	0.0850	0.0774	0.0814

	(0.126)	(0.125)	(0.125)	(0.125)
Father on boy	0.0149	-0.00974	-0.0140	-0.0152
	(0.129)	(0.133)	(0.132)	(0.133)
age	-0.000807***	-0.000804***	-0.000809***	-0.000804***
	(0.000120)	(0.000119)	(0.000116)	(0.000119)
school	-0.0559	-0.0535	-0.0549	-0.0530
	(0.0524)	(0.0523)	(0.0522)	(0.0523)
risk_aversion	-0.268***	-0.259***	-0.260***	-0.259***
	(0.0338)	(0.0339)	(0.0336)	(0.0338)
working	-0.0757	-0.0846	-0.0807	-0.0840
	(0.0875)	(0.0876)	(0.0874)	(0.0876)
christian	-0.0792	-0.0903	-0.0857	-0.0904
	(0.0861)	(0.0864)	(0.0857)	(0.0863)
Osogbo	0.752***	0.722***	0.716***	0.715***
	(0.0815)	(0.0875)	(0.0851)	(0.0868)
_cons	4.132***	4.079***	4.080***	4.070***
	(0.446)	(0.422)	(0.435)	(0.427)
Observations	1147	1142	1147	1142
R-squared	0.149	0.151	0.151	0.152
Clusters	599	599	599	599

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A3. Aspirations external, Nigeria

		1	3	5
ΔSN_i		0.163***		-0.0155
		(0.0419)		(0.0579)
ΔPN_i			0.225***	0.239***
			(0.0397)	(0.0554)
Boy	0.0130	-0.0578	-0.0972	-0.0904
	(0.0741)	(0.0767)	(0.0758)	(0.0759)
Mother on girl	-0.0349	-0.0141	-0.0351	-0.0201
	(0.0832)	(0.0812)	(0.0815)	(0.0806)
Mother on boy	0.137	0.0500	0.00111	0.00268
	(0.104)	(0.103)	(0.100)	(0.101)
Father on girl	-0.132	-0.0932	-0.0644	-0.0633
	(0.105)	(0.105)	(0.103)	(0.103)
Father on boy	-0.126	-0.193*	-0.233**	-0.231**
	(0.102)	(0.102)	(0.0990)	(0.0990)
age	0.000266**	0.000277**	0.000424***	0.000421***
	(0.000117)	(0.000109)	(0.000105)	(0.0000996)
school	0.0114	0.0150	0.0197	0.0230
	(0.0497)	(0.0485)	(0.0477)	(0.0476)
risk_aversion	-0.115***	-0.0948***	-0.0893***	-0.0921***
	(0.0284)	(0.0284)	(0.0275)	(0.0277)
working	-0.103	-0.0902	-0.0933	-0.0971
	(0.0665)	(0.0642)	(0.0633)	(0.0632)
christian	0.129*	0.109	0.0821	0.0884
	(0.0765)	(0.0749)	(0.0742)	(0.0744)
Osogbo	0.389***	0.316***	0.285***	0.294***
	(0.0613)	(0.0629)	(0.0610)	(0.0620)
_cons	4.463***	4.290***	4.234***	4.222***
	(0.215)	(0.216)	(0.213)	(0.214)
Observations	1152	1149	1152	1149
R-squared	0.080	0.104	0.121	0.126
Clusters	599	599	599	599

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A4. Probability external, Nigeria

	1	2	3	4
ΔSN_i		0.132***		-0.0331
		(0.0496)		(0.0626)
ΔPN_i			0.196***	0.221***
			(0.0466)	(0.0591)
Boy	-0.0193	-0.0777	-0.115	-0.107
	(0.1000)	(0.103)	(0.102)	(0.102)
Mother on girl	0.0365	0.0494	0.0367	0.0435
	(0.103)	(0.103)	(0.102)	(0.102)
Mother on boy	0.271**	0.200	0.152	0.156
	(0.127)	(0.129)	(0.127)	(0.128)
Father on girl	0.0746	0.107	0.134	0.134
	(0.116)	(0.116)	(0.116)	(0.116)
Father on boy	0.0698	0.0161	-0.0241	-0.0200
	(0.122)	(0.123)	(0.122)	(0.122)
age	-0.000671***	-0.000679***	-0.000541***	-0.000535***
	(0.000219)	(0.000193)	(0.000199)	(0.000196)
school	0.0727	0.0741	0.0795	0.0813
	(0.0553)	(0.0548)	(0.0542)	(0.0542)
risk_aversion	-0.205***	-0.188***	-0.182***	-0.186***
	(0.0322)	(0.0322)	(0.0316)	(0.0316)
working	-0.174*	-0.164*	-0.166*	-0.171**
	(0.0887)	(0.0878)	(0.0865)	(0.0868)
christian	0.0168	0.00228	-0.0241	-0.0165
	(0.0976)	(0.0962)	(0.0952)	(0.0954)
Osogbo	0.847***	0.786***	0.757***	0.766***
	(0.0835)	(0.0893)	(0.0871)	(0.0890)
_cons	3.349***	3.214***	3.152***	3.152***
	(0.247)	(0.249)	(0.247)	(0.248)
Observations	1150	1147	1150	1147
R-squared	0.169	0.179	0.187	0.189
Clusters	599	599	599	599

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A5. Aspirations internal, Ethiopia

	1	2	3	4
ΔSN_i		0.269***		0.0129
		(0.0387)		(0.0635)
ΔPN_i			0.289***	0.278***
			(0.0348)	(0.0584)
Boy	-0.176*	-0.294***	-0.294***	-0.295***
	(0.106)	(0.105)	(0.104)	(0.104)
Mother on girl	-0.572***	-0.491***	-0.464***	-0.461***
	(0.182)	(0.179)	(0.178)	(0.178)
Mother on boy	-0.547***	-0.576***	-0.542***	-0.531***
	(0.201)	(0.195)	(0.192)	(0.193)
Father on girl	-0.388*	-0.290	-0.205	-0.206
	(0.232)	(0.226)	(0.229)	(0.229)
Father on boy	-0.521**	-0.538**	-0.522**	-0.522**
	(0.228)	(0.223)	(0.222)	(0.222)
age	0.0141**	0.0125**	0.0124**	0.0123**
	(0.00582)	(0.00560)	(0.00562)	(0.00562)
school	-0.0781*	-0.0608	-0.0656*	-0.0631
	(0.0412)	(0.0398)	(0.0389)	(0.0389)

risk_aversion	-0.391***	-0.384***	-0.380***	-0.377***
	(0.0396)	(0.0372)	(0.0368)	(0.0368)
working	0.154*	0.0795	0.0737	0.0738
	(0.0850)	(0.0828)	(0.0823)	(0.0822)
christian	-0.0494	-0.0852	-0.0879	-0.106
	(0.142)	(0.135)	(0.132)	(0.132)
Jigjiga city	-0.0171	0.274*	0.281*	0.263*
	(0.154)	(0.152)	(0.148)	(0.149)
Kebribrey city	-0.0447	0.242	0.225	0.209
	(0.153)	(0.147)	(0.143)	(0.144)
_cons	4.642***	4.363***	4.337***	4.342***
	(0.221)	(0.218)	(0.216)	(0.217)
Observations	1170	1169	1170	1169
R-squared	0.145	0.195	0.214	0.212
Clusters	608	607	608	607

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A6. Probability internal, Ethiopia

		1	3	5
ΔSN_i		0.119***		-0.0425
		(0.0350)		(0.0685)
ΔPN_i			0.143***	0.176***
			(0.0324)	(0.0646)
Boy	0.0728	0.0206	0.0142	0.0196
	(0.106)	(0.107)	(0.107)	(0.107)
Mother on girl	-0.693***	-0.657***	-0.640***	-0.638***
	(0.180)	(0.180)	(0.180)	(0.180)
Mother on boy	-0.498**	-0.510**	-0.497**	-0.482**
	(0.208)	(0.207)	(0.207)	(0.208)
Father on girl	-0.502**	-0.459**	-0.412*	-0.406*
	(0.223)	(0.223)	(0.222)	(0.221)
Father on boy	-0.456**	-0.464**	-0.457**	-0.454**
	(0.222)	(0.222)	(0.223)	(0.223)
age	0.0232***	0.0224***	0.0223***	0.0223***
	(0.00567)	(0.00567)	(0.00568)	(0.00569)
school	-0.0674	-0.0593	-0.0612	-0.0608
	(0.0438)	(0.0432)	(0.0429)	(0.0430)
risk_aversion	-0.393***	-0.389***	-0.388***	-0.385***
	(0.0351)	(0.0346)	(0.0343)	(0.0344)
working	0.0125	-0.0205	-0.0273	-0.0242
	(0.0864)	(0.0862)	(0.0857)	(0.0855)
christian	-0.196	-0.215	-0.215	-0.228
	(0.176)	(0.177)	(0.174)	(0.174)
Jigjiga city	0.728***	0.854***	0.875***	0.847***
	(0.178)	(0.179)	(0.176)	(0.176)
Kebribrey city	0.754***	0.877***	0.886***	0.857***
	(0.179)	(0.180)	(0.176)	(0.177)
_cons	0.0728	0.0206	0.0142	0.0196
	3.408***	3.285***	3.258***	3.272***
	(0.258)	(0.257)	(0.255)	(0.255)
Observations	1170	1169	1170	1169
R-squared	0.154	0.163	0.170	0.169
Clusters	608	607	608	607

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A7. Aspirations external, Ethiopia

		1	3	5
ΔSN_i		0.213***		-0.269***
		(0.0357)		(0.0645)
ΔPN_i			0.347***	0.527***
			(0.0319)	(0.0551)
Boy	0.127	0.0502	-0.0412	-0.0317
	(0.104)	(0.103)	(0.0960)	(0.0947)
Mother on girl	-0.431*	-0.348	-0.311	-0.341*
	(0.221)	(0.219)	(0.205)	(0.200)
Mother on boy	-0.219	-0.225	-0.270	-0.270
	(0.241)	(0.236)	(0.222)	(0.221)
Father on girl	-0.198	-0.0489	0.0556	-0.0157
	(0.254)	(0.251)	(0.243)	(0.241)
Father on boy	-0.166	-0.146	-0.149	-0.180
	(0.263)	(0.258)	(0.250)	(0.251)
age	0.00262	0.00298	0.00561	0.00698
	(0.00661)	(0.00645)	(0.00627)	(0.00635)
school	0.0283	0.0361	0.0251	0.0203
	(0.0441)	(0.0432)	(0.0414)	(0.0409)
risk_aversion	-0.361***	-0.373***	-0.370***	-0.348***
	(0.0382)	(0.0374)	(0.0360)	(0.0357)
working	0.0536	-0.00212	-0.0115	0.0286
	(0.0967)	(0.0952)	(0.0903)	(0.0890)
christian	0.0613	0.0367	0.0667	0.0262
	(0.168)	(0.167)	(0.149)	(0.147)
Jigjiga city	-0.194	0.0949	0.203	-0.0362
	(0.174)	(0.180)	(0.168)	(0.163)
Kebribrey city	0.0294	0.205	0.259	0.0776
	(0.178)	(0.176)	(0.162)	(0.157)
_cons	4.501***	4.232***	4.069***	4.205***
	(0.263)	(0.263)	(0.254)	(0.250)
Observations	1170	1168	1170	1168
R-squared	0.151	0.181	0.263	0.281
Clusters	608	606	608	606

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A8. Probability external, Ethiopia

	1	2	3	4
ΔSN_i		0.134***		-0.156***
		(0.0322)		(0.0594)
ΔPN_i			0.212***	0.317***
			(0.0286)	(0.0520)
Boy	0.109	0.0602	0.00530	0.0109
	(0.107)	(0.107)	(0.104)	(0.103)
Mother on girl	-0.437**	-0.385**	-0.365*	-0.382**
	(0.195)	(0.194)	(0.187)	(0.185)
Mother on boy	-0.175	-0.183	-0.210	-0.212
	(0.218)	(0.217)	(0.212)	(0.211)
Father on girl	-0.221	-0.132	-0.0691	-0.114
	(0.242)	(0.242)	(0.235)	(0.233)
Father on boy	-0.0652	-0.0575	-0.0584	-0.0803
	(0.237)	(0.237)	(0.232)	(0.230)
age	0.00722	0.00758	0.00917	0.0101*
	(0.00611)	(0.00606)	(0.00595)	(0.00597)
school	0.0162	0.0212	0.0140	0.0117

	(0.0457)	(0.0453)	(0.0444)	(0.0443)
risk_aversion	-0.354***	-0.361***	-0.359***	-0.346***
	(0.0364)	(0.0361)	(0.0350)	(0.0350)
working	0.0686	0.0341	0.0283	0.0519
	(0.0903)	(0.0892)	(0.0867)	(0.0859)
christian	-0.157	-0.178	-0.154	-0.185
	(0.180)	(0.183)	(0.174)	(0.173)
Jigjiga city	0.557***	0.732***	0.800***	0.654***
	(0.175)	(0.181)	(0.172)	(0.172)
Kebribrey city	0.773***	0.877***	0.914***	0.801***
	(0.180)	(0.182)	(0.172)	(0.171)
_cons	3.443***	3.275***	3.177***	3.257***
	(0.268)	(0.269)	(0.263)	(0.261)
Observations	1170	1168	1170	1168
R-squared	0.123	0.134	0.168	0.172
Clusters	608	606	608	606

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A9. Parental influence – probability internal, Nigeria

	1	2	3	4	5
ΔPN_i	0.0118			-0.0306	-0.0423
	(0.0682)			(0.0739)	(0.0734)
female	0.0320	0.0826	0.0834	0.0710	0.0675
	(0.110)	(0.111)	(0.111)	(0.114)	(0.114)
age	-0.00709	-0.000662	-0.000730	-0.0000879	0.0000617
	(0.0277)	(0.0276)	(0.0277)	(0.0276)	(0.0276)
school	0.00370	0.00233	0.00639	0.00151	0.00553
	(0.102)	(0.102)	(0.102)	(0.102)	(0.102)
risk_aversion	-0.288***	-0.273***	-0.277***	-0.276***	-0.282***
	(0.0548)	(0.0542)	(0.0539)	(0.0554)	(0.0550)
occupation_working	0.0552	0.0131	0.00586	0.0132	0.00557
	(0.117)	(0.116)	(0.117)	(0.116)	(0.117)
religion_christian	-0.155	-0.196*	-0.192*	-0.194*	-0.190*
	(0.111)	(0.112)	(0.112)	(0.111)	(0.112)
Osogbo	0.727***	0.691***	0.690***	0.701***	0.704***
	(0.116)	(0.114)	(0.114)	(0.118)	(0.118)
parent_is_mother		0.220*	0.241*	0.220*	0.243**
		(0.119)	(0.123)	(0.120)	(0.123)
ΔPN_i_parent		-0.0212	-0.0483	-0.0112	-0.0363
		(0.0870)	(0.0911)	(0.0907)	(0.0943)
ΔPN_i_mother		0.220*	0.241*	0.220*	0.243**
		(0.119)	(0.123)	(0.120)	(0.123)
ΔPN_i_parent*fatherdecides			0.0858		0.0916
			(0.114)		(0.115)
Asp._mother*motherdecides			0.0411		0.0437
			(0.0378)		(0.0375)
_cons	4.075***	3.982***	3.974***	3.999***	3.997***
	(0.532)	(0.536)	(0.538)	(0.543)	(0.543)
Observations	562	561	561	561	561
R-squared	0.141	0.154	0.157	0.154	0.157
Clusters	562	561	561	561	561

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Fatherdecides=1 means father is assigned more than 1/3 of household's decision power. Motherdecides=1 means father is assigned more than 1/3 of household's decision power

Table A10. Parental influence, probability external, Nigeria

	1	2	3	4	5
ΔPN_i	0.203***			0.160**	0.141*
	(0.0705)			(0.0755)	(0.0757)
female	0.136	0.138	0.140	0.183*	0.180*
	(0.104)	(0.107)	(0.106)	(0.108)	(0.108)
age	0.0489*	0.0549**	0.0547**	0.0536**	0.0536**
	(0.0251)	(0.0255)	(0.0253)	(0.0255)	(0.0252)
school	-0.0139	-0.0277	-0.0228	-0.0234	-0.0196
	(0.0932)	(0.0942)	(0.0941)	(0.0940)	(0.0940)
risk_aversion	-0.189***	-0.191***	-0.197***	-0.173***	-0.181***
	(0.0524)	(0.0528)	(0.0524)	(0.0525)	(0.0523)
occupation_working	-0.120	-0.120	-0.147	-0.125	-0.150
	(0.110)	(0.112)	(0.111)	(0.111)	(0.111)
religion_christian	-0.0264	-0.0121	-0.0199	-0.0377	-0.0409
	(0.115)	(0.118)	(0.117)	(0.115)	(0.115)
Osogbo	0.709***	0.718***	0.714***	0.674***	0.675***
	(0.110)	(0.109)	(0.109)	(0.112)	(0.111)
parent_is_mother		-0.0242	-0.122	-0.0481	-0.133
		(0.171)	(0.177)	(0.170)	(0.176)
ΔPN_i_parent		0.167**	0.142*	0.111	0.0915
		(0.0783)	(0.0816)	(0.0814)	(0.0844)
ΔPN_i_mother		0.0134	0.0404	0.0231	0.0493
		(0.110)	(0.114)	(0.108)	(0.112)
ΔPN_i_parent*fatherdecides			0.0786		0.0812
			(0.0984)		(0.0974)
ΔPN_i_mother*motherdecides			0.100***		0.0909***
			(0.0325)		(0.0322)
_cons	2.341***	2.321***	2.335***	2.190***	2.216***
	(0.533)	(0.539)	(0.535)	(0.541)	(0.537)
Observations	564	563	563	563	563
R-squared	0.167	0.165	0.178	0.174	0.184
Clusters	564	563	563	563	563

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A11. Parental influence interacted with girl: internal migration probability, Nigeria

	1	2	3
ΔPN_i	0.00967		-0.00368
	(0.0975)		(0.108)
female	0.0283	0.211	0.219
	(0.185)	(0.238)	(0.250)
female#ΔPN_i	0.00305		-0.0241
	(0.125)		(0.142)
age	-0.00713	0.00162	0.00225
	(0.0278)	(0.0278)	(0.0279)
school	0.00389	-0.00735	-0.00894
	(0.104)	(0.102)	(0.104)
risk_aversion	-0.288***	-0.269***	-0.271***
	(0.0549)	(0.0548)	(0.0559)
working	0.0553	0.00938	0.00913
	(0.117)	(0.116)	(0.117)
religion_christian	-0.155	-0.213*	-0.210*
	(0.112)	(0.111)	(0.111)
Osogbo	0.727***	0.702***	0.706***

	(0.117)	(0.115)	(0.119)
parent_is_mother		0.0992	0.0995
		(0.328)	(0.329)
parent_is_mother#Girl		-0.419	-0.414
		(0.392)	(0.394)
ΔPN_i_parent		-0.0394	-0.0388
		(0.118)	(0.129)
Girl#ΔPN_i_parent		0.0915	0.0997
		(0.168)	(0.180)
ΔPN_i_mother		0.165	0.164
		(0.196)	(0.197)
Girl# ΔPN_i_mother		-0.0459	-0.0433
		(0.257)	(0.259)
_cons	4.078***	3.904***	3.900***
	(0.537)	(0.553)	(0.558)
Observations	562	561	561
R-squared	0.141	0.161	0.161
Clusters	562	561	561

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A12. Parental influence interacted with girl: external migration probability, Nigeria

	1	2	3
ΔPN_i	0.405***		0.364***
	(0.119)		(0.125)
female	0.525**	0.216	0.504*
	(0.225)	(0.224)	(0.262)
female#ΔPN_i	-0.277**		-0.268*
	(0.138)		(0.152)
age	0.0494**	0.0559**	0.0540**
	(0.0250)	(0.0256)	(0.0254)
school	-0.0163	-0.0379	-0.0333
	(0.0931)	(0.0935)	(0.0931)
risk_aversion	-0.192***	-0.200***	-0.179***
	(0.0523)	(0.0532)	(0.0525)
working	-0.116	-0.126	-0.122
	(0.110)	(0.112)	(0.111)
religion_christian	-0.0150	-0.0116	-0.0320
	(0.114)	(0.118)	(0.115)
Osogbo	0.685***	0.694***	0.632***
	(0.111)	(0.110)	(0.112)
parent_is_mother		-0.433	-0.520
		(0.356)	(0.364)
parent_is_mother#Girl		0.445	0.514
		(0.406)	(0.413)
ΔPN_i_parent		0.179	0.0446
		(0.116)	(0.119)
Girl#ΔPN_i_parent		0.0154	0.125
		(0.150)	(0.159)
ΔPN_i_mother		0.318	0.375*
		(0.207)	(0.207)
Girl# ΔPN_i_mother		-0.425*	-0.483*
		0.179	0.0446
_cons	2.032***	2.314***	1.986**
	(0.735)	(0.820)	(0.799)
Observations	564	563	563
R-squared	0.173	0.174	0.189
Clusters	564	563	563

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A13. Parental influence, probability internal, Ethiopia

	1	2	3	4	5
ΔPN_i	0.166***			0.120**	0.123**
	(0.0450)			(0.0563)	(0.0559)
female	-0.00702	-0.00381	-0.0133	0.0172	0.00690
	(0.109)	(0.108)	(0.109)	(0.109)	(0.110)
age	0.0399	0.0454*	0.0439*	0.0415*	0.0397
	(0.0245)	(0.0248)	(0.0246)	(0.0245)	(0.0243)
school	-0.0563	-0.0574	-0.0511	-0.0565	-0.0497
	(0.0639)	(0.0645)	(0.0646)	(0.0642)	(0.0643)
risk_aversion	-0.449***	-0.451***	-0.446***	-0.450***	-0.445***
	(0.0443)	(0.0450)	(0.0452)	(0.0443)	(0.0445)
occupation_working	-0.221	-0.229	-0.248	-0.232	-0.252*
	(0.150)	(0.150)	(0.152)	(0.150)	(0.151)
religion_christian	-0.280	-0.281	-0.299	-0.269	-0.288
	(0.218)	(0.223)	(0.223)	(0.222)	(0.222)
Jigjiga city	0.715***	0.736***	0.722***	0.783***	0.769***
	(0.223)	(0.230)	(0.230)	(0.227)	(0.227)
Kebribrey city	0.889***	0.935***	0.925***	0.967***	0.956***
	(0.219)	(0.224)	(0.223)	(0.223)	(0.222)
parent_is_mother		-0.0706	-0.113	-0.0720	-0.120
		(0.120)	(0.130)	(0.120)	(0.130)
ΔPN_i_parent		0.168***	0.217**	0.103	0.151
		(0.0631)	(0.0895)	(0.0716)	(0.0954)
ΔPN_i_mother		-0.0277	-0.0771	-0.0241	-0.0756
		(0.0787)	(0.0997)	(0.0785)	(0.0985)
ΔPN_i_parent*fatherdecides			-0.111		-0.116
			(0.107)		(0.108)
Asp._mother*motherdecides			0.0283		0.0319
			(0.0332)		(0.0329)
_cons	3.118***	3.076***	3.100***	3.065***	3.094***
	(0.525)	(0.533)	(0.529)	(0.531)	(0.526)
Observations	565	565	565	565	565
R-squared	0.207	0.205	0.207	0.213	0.215
Clusters	565	565	565	565	565

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Fatherdecides=1 means father is assigned more than 1/3 of household's decision power. Motherdecides=1 means father is assigned more than 1/3 of household's decision power

Table A14. Parental influence, probability external, Ethiopia

	1	2	3	4	5
ΔPN_i	0.233***			0.208***	0.220***
	(0.0391)			(0.0470)	(0.0473)
female	0.0113	-0.0247	-0.0338	0.0329	0.0291
	(0.106)	(0.110)	(0.111)	(0.107)	(0.108)
age	-0.0291	-0.0316	-0.0300	-0.0289	-0.0261
	(0.0249)	(0.0256)	(0.0257)	(0.0251)	(0.0252)
school	0.0406	0.0618	0.0604	0.0435	0.0397
	(0.0632)	(0.0658)	(0.0657)	(0.0638)	(0.0636)
risk_aversion	-0.455***	-0.460***	-0.450***	-0.458***	-0.447***
	(0.0438)	(0.0462)	(0.0460)	(0.0444)	(0.0441)
occupation_working	-0.0451	-0.0812	-0.0860	-0.0570	-0.0591

	(0.139)	(0.145)	(0.145)	(0.140)	(0.139)
religion_christian	-0.204	-0.154	-0.145	-0.168	-0.155
	(0.215)	(0.219)	(0.219)	(0.214)	(0.215)
Jigjiga city	0.871***	0.766***	0.765***	0.899***	0.910***
	(0.213)	(0.218)	(0.219)	(0.214)	(0.216)
Kebribrey city	0.902***	0.896***	0.924***	0.949***	0.987***
	(0.208)	(0.214)	(0.215)	(0.210)	(0.211)
parent_is_mother		-0.252**	-0.284**	-0.209*	-0.231*
		(0.108)	(0.119)	(0.108)	(0.119)
ΔPN_i_parent		0.0982*	0.215***	0.0199	0.155**
		(0.0510)	(0.0771)	(0.0560)	(0.0782)
ΔPN_i_mother		0.0411	-0.0758	0.0321	-0.108
		(0.0662)	(0.0874)	(0.0660)	(0.0862)
ΔPN_i_parent*fatherdecides			-0.262***		-0.312***
			(0.0907)		(0.0923)
ΔPN_i_mother*motherdecides			0.00684		-0.000781
			(0.0347)		(0.0338)
_cons	4.090***	4.474***	4.442***	4.191***	4.120***
	(0.525)	(0.534)	(0.538)	(0.530)	(0.536)
Observations	565	565	565	565	565
R-squared	0.227	0.205	0.212	0.232	0.243
Clusters	565	565	565	565	565

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A15. Parental influence interacted with girl: internal migration probability, Ethiopia

	1	2	3
ΔPN_i	0.111		0.0168
	(0.0709)		(0.102)
female	-0.0831	-0.0466	-0.107
	(0.131)	(0.193)	(0.200)
female#ΔPN_i	0.0962		0.171
	(0.0893)		(0.122)
age	0.0413*	0.0458*	0.0438*
	(0.0244)	(0.0248)	(0.0243)
school	-0.0565	-0.0583	-0.0517
	(0.0636)	(0.0645)	(0.0637)
risk_aversion	-0.443***	-0.453***	-0.445***
	(0.0445)	(0.0454)	(0.0448)
working	-0.226	-0.233	-0.244
	(0.150)	(0.151)	(0.150)
religion_christian	-0.300	-0.280	-0.291
	(0.219)	(0.224)	(0.223)
Jigjiga city	0.697***	0.739***	0.767***
	(0.224)	(0.231)	(0.228)
Kebribrey city	0.878***	0.936***	0.949***
	(0.219)	(0.225)	(0.223)
parent_is_mother		-0.0920	-0.0931
		(0.187)	(0.188)
parent_is_mother#Girl		(0.187)	(0.188)
		0.0572	0.0732
ΔPN_i_parent		0.183**	0.177
		(0.0881)	(0.111)
Girl#ΔPN_i_parent		-0.0384	-0.124
		(0.126)	(0.146)

ΔPN_i_mother		-0.0544	-0.0502
		(0.119)	(0.120)
Girl# ΔPN_i_mother		0.0604	0.0438
		(0.163)	(0.162)
_cons	3.147***	3.089***	3.077***
	(0.527)	(0.542)	(0.535)
Observations	565	565	565
R-squared	0.209	0.205	0.217
Clusters	565	565	565

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A16. Parental influence interacted with girl: external migration probability, Ethiopia

	1	2	3
ΔPN_i	0.208***		0.238***
	(0.0598)		(0.0765)
female	-0.0298	-0.0326	0.0541
	(0.128)	(0.173)	(0.192)
female#ΔPN_i	0.0427		-0.0400
	(0.0788)		(0.0965)
age	-0.0289	-0.0322	-0.0293
	(0.0249)	(0.0254)	(0.0248)
school	0.0375	0.0551	0.0376
	(0.0627)	(0.0658)	(0.0637)
risk_aversion	-0.454***	-0.462***	-0.462***
	(0.0438)	(0.0467)	(0.0448)
working	-0.0444	-0.0848	-0.0627
	(0.139)	(0.145)	(0.139)
religion_christian	-0.211	-0.188	-0.207
	(0.216)	(0.216)	(0.211)
Jigjiga city	0.864***	0.743***	0.877***
	(0.213)	(0.215)	(0.211)
Kebribrey city	0.895***	0.870***	0.921***
	(0.209)	(0.210)	(0.206)
parent_is_mother		-0.197	-0.151
		(0.155)	(0.157)
parent_is_mother#Girl		-0.0599	-0.0645
		(0.224)	(0.222)
ΔPN_i_parent		0.0983	-0.00745
		(0.0670)	(0.0825)
Girl#ΔPN_i_parent		-0.00232	0.0432
		(0.101)	(0.113)
ΔPN_i_mother		-0.0459	-0.0539
		(0.0966)	(0.0982)
Girl# ΔPN_i_mother		0.151	0.144
		(0.137)	(0.136)
_cons	4.128***	4.538***	4.232***
	(0.531)	(0.531)	(0.530)
Observations	565	565	565
R-squared	0.227	0.209	0.238
Clusters	565	565	565

Standard errors clustered at the household level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$