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Abstract

The gendered cost of staying: How gender inequality increases female migration*

by Irene Pañeda-Fernández

Women increasingly migrate as primary movers, yet how gender inequality shapes this process remains unclear due to methodological limitations. Competing theories predict that greater gender equality should facilitate women's migration by loosening norms and expanding women's aspirations, whereas greater inequality may increase women's incentives to leave by raising the costs of staying or triggering relative deprivation. I overcome prior shortcomings by using two sources of exogenous variation in gender inequality (matrilineal kinship and variation in female property rights from colonial common- versus civil-law systems) as well as rich original survey data. Across all designs, higher gender inequality predicts stronger migration intentions. At the individual level, original surveys from Senegal, The Gambia, and Nigeria show violent experiences of gender inequality predict higher intentions, whereas more economic experiences such as gender discrimination do not. An embedded experiment further shows that gender equality at destination matters more for women exposed to violence. These patterns extend beyond intentions: in a representative survey of West African immigrants in Germany, women from more gender-unequal cultural traditions and from weaker property-rights regimes are overrepresented. Overall, results suggest a mechanism based on changes in the cost of staying rather than relative deprivation.

Keywords: female migration; gender inequality; gender discrimination; gender–based violence; migration intentions; institutions; culture

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Zusammenfassung

Diese Studie untersucht, wie Geschlechterungleichheit die zunehmende Tendenz von Frauen, als primäre Migrantinnen zu migrieren, beeinflusst. Dieser Zusammenhang blieb bislang wegen methodischer Einschränkungen unklar. Unterschiedliche Theorien sagen voraus, dass größere Geschlechtergleichheit die Migration von Frauen erleichtern sollte, indem sie Normen lockert und Frauenaspirationen erweitert; demgegenüber könnte stärkere Ungleichheit die Anreize für ein Fortgehen erhöhen, indem sie die Kosten des Verbleibs steigert oder relative Benachteiligung auslöst. Die vorliegende Arbeit überwindet frühere Mängel, indem sie zwei Quellen exogener Variation in der Geschlechterungleichheit nutzt (matrilineare Verwandtschaftsstrukturen und Unterschiede in den Eigentumsrechten von Frauen, bedingt durch koloniale Common- vs. Civil-Law-Systeme) sowie umfangreiche eigene Umfragedaten einbezieht. Über alle verwendeten Designs hinweg sagt größere Geschlechterungleichheit stärkere Migrationsabsichten voraus. Auf individueller Ebene zeigen eigene Erhebungen in Senegal, Gambia und Nigeria, dass gewaltsame Erfahrungen im Zusammenhang mit Geschlechterungleichheit höhere Migrationsabsichten vorhersagen, während eher ökonomische Erfahrungen wie geschlechtsspezifische Diskriminierung dies nicht tun. Ein eingebettetes Experiment legt darüber hinaus nahe, dass Geschlechtergleichheit am Zielland für Frauen, die Gewalt erlebt haben, stärker ins Gewicht fällt. Diese Muster reichen über Absichten hinaus: In einer repräsentativen Befragung westafrikanischer Migrantinnen und Migranten in Deutschland sind Frauen aus kulturellen Traditionen mit stärkerer Geschlechterungleichheit und aus Rechtsordnungen mit schwächeren Eigentumsrechten überrepräsentiert. Insgesamt deuten die Ergebnisse auf einen Mechanismus hin, der auf Veränderungen der Kosten des Verbleibs beruht und weniger auf relativer Benachteiligung.

Schlüsselwörter: Migration von Frauen; Geschlechterungleichheit; geschlechtsspezifische Diskriminierung; geschlechtsspezifische Gewalt; Migrationsabsichten; Institutionen; Kultur

1 Introduction

Research on the drivers of international migration has long suffered from a disproportionate focus on men, leaving women's mobility comparatively undertheorized and under researched (Bircan and Yilmaz 2023; Carling 2005). This omission has hindered sociology´s contribution to explaining migration processes because women have constituted nearly half of all international migrants for decades (IOM 2024) and are increasingly migrating autonomously rather than as dependents (De Haas, Castles, and Miller 2019). Yet the mechanisms that drive female migration and the extent to which it signals strengthened female independence and empowerment remain poorly understood.

This male bias has long been known, and incorporating women into research on international migration has received substantial scholarly attention in recent years (Anastasiadou et al. 2024; Kofman and Raghuram 2022), although there remains substantial neglect of gender differences in mainstream theories and empirical approaches. While the emerging pattern of the gender and migration literature shows that women face constraints, motivations, and social sanctions that are different from men's (Anastasiadou et al. 2024; Eberhardt and Schwenken 2010; Setrana and Kleist 2022), the relationship between gender inequality and female migration nevertheless remains theoretically ambiguous and empirically unsettled.

The expectations of the relationship between gender inequality and female migration are not theoretically straightforward because gender inequality may constrain women's ability to leave while increasing their desire to do so. Empirically, some studies find that gender inequality constrains women's ability to migrate independently (De Haas et al. 2019; Hugo 2000) and that as social norms liberalize and women's human capital increases, the pool of women with the capability and willingness to migrate expands (Baudassé and Bazillier 2014; Ferrant and Tuccio 2015b; Gutmann, Marchal, and Simsek 2023). Others find instead that discrimination and violence against women can also raise their aspirations to migrate and push them to leave (Altrogge, Jaw, and Gassana 2024; Belloni 2019; Ruyssen and Salomone 2018).

These inconclusive findings reflect that methodological constraints and data limitations have hampered research on how gender inequality shapes female migration. Prior quantitative studies are largely based on correlational approaches that use national-level indices of gender inequality. Such country-level average measures pose severe limitations because they are unlikely to be perceived by individuals or have a bearing on everyday lives, can often mask important heterogeneity, and are vulnerable to selection on the dependent variable and Simpson´s paradox (e.g. see Clemens and Mendola 2024). Qualitative studies have been limited in geographical scope and often conducted in contexts with little variation in the extent of gender inequality. As a result, the relationship between gender inequality and women's migration intentions remains poorly understood. I address these shortcomings by combining two sources of exogenous variation in gender inequality, rich original survey data with representative samples in origin and destination, and an embedded survey experiment.

This paper makes three important contributions to the sociology of international migration. First, this is the most comprehensive analysis to date of the effect of gender inequality on female migration. I develop theoretical arguments that draw from extant migration theories and derive testable implications of the mechanisms. I argue that the relationship between gender inequality and female migration can go in opposite directions. On the one hand, gender inequality lowers women´s capabilities to migrate because women face more restrictive social norms, legal barriers, and more limited access to economic resources and networks. Gender inequality also raises the cost of migrating for women because doing so means breaking conservative norms that prescribe the male breadwinner model. Restrictive gender norms may also hinder the formation of migration aspirations in the first place. Drawing on the concept of the "capacity to aspire" (Appadurai 2004) and expectations of how migration aspirations expand with economic development (Carling and Schewel 2018; de Haas 2021), I argue that women in more gender-equal contexts may have a richer sense of what possible futures exist and how to reach them. The argument is then that, as their concept of what a "good life" is expands, so do aspirations to migrate internationally. On the other hand, there are also theoretical reasons to expect gender inequality to heighten female migration. Here, the argument is that gender inequality imposes costs on women that cannot necessarily be avoided by not breaking traditional gender norms. Gender inequality can then increase female migration because the cost of staying surpasses the cost of migrating. Further, I draw on relative deprivation theory, a framework often applied to the study of economic inequalities, to argue that higher gender inequality may also trigger feelings of exclusion and marginalization that heighten women's migration intentions.

Second, I use empirical strategies that exploit exogenous variation in gender norms, a significant improvement from all prior approaches. My approach makes an important advancement to estimate the causal effect of gender inequality on female migration and decouple it from that of economic development, a known confounder. The first empirical approach exploits within-country variation in matrilineal kinship, a cultural tradition that can be conceived as a "long-term program that consistently gives women greater access to resources—both material and social" (Gottlieb and Robinson 2019:23). To set up the empirical strategy, I link cross-national Afrobarometer survey data to the *Ethnographic Atlas* (Murdock 1967), a rich anthropological database containing information on the cultural characteristics of ethnic groups in Africa that has been empirically validated (Bahrami-Rad, Becker, and Henrich 2021). The second is a natural experiment based on colonial borders that divided ethnic homelands. Prior research has shown that former British colonies are less protective of female property rights by not giving women any rights to their husbands' property if they divorce, which has in turn exacerbated gender inequality (Anderson 2018, 2021).

Third, I use representative original survey data in origin and destination contexts, a rare opportunity to study three stages of the migration process: (1) the development of migration aspirations, (2) taking concrete steps to plan and make these aspirations a reality, and (3) observed migratory behavior. For the first two steps, I use survey data collected in Senegal, The Gambia, and southern Nigeria with which I document individual-level correlations between experiences of gender

inequality and migration aspirations and plans, coupled with an embedded choice experiment that disentangles the level of gender equality from economic prospects at destination. For the last step, I use an original, representative survey of West African immigrants in Germany to go beyond migration intentions and into observed migratory behavior.

Across these analyses, a consistent pattern emerges. Gender inequality increases female migration intentions and behavior. Delving into mechanisms, I find evidence consistent with the main finding being driven by changes in the cost of staying. That is, female migration intentions emerge when the cost of staying becomes too high so that it surpasses the cost of leaving. This interpretation is based on the finding that violent experiences of gender inequality (gender-based violence) predict stronger migration aspirations and plans but not more economic experiences (gender discrimination). Further, gender equality at destination matters more for women exposed to violence relative to the rest of the sample, but not to those exposed to gender discrimination.

The literature on gender and migration has struggled to make a dent in mainstream migration theories and research, in part due to inconclusive findings and patterns. The evidence I provide in this paper stands out in a literature that has so far mostly focused on cross-country analyses with aggregate measures of gender disparities or in-depth qualitative of a few select cases. I provide evidence consistent with a causal effect of gender inequality on women's migration intentions, and suggestive evidence that these patterns extend to realized migration.

2 Theoretical framework

Existing research shows that gender structures every stage of the migration process, but evidence on how origin-country gender inequality shapes women's migration decisions is inconclusive (Anastasiadou et al. 2024; Donato and Gabaccia 2015; Mahler and Pessar 2006). Some studies find that it is gender equality, rather than inequality, what drives female migration. For instance, women in urban areas express a higher desire to migrate than those in more gender conservative rural settings, suggesting that modernization forces such as exposure to education, labor markets, and diverse social worlds expand their horizons and conceptions of "the good life" (Aslany, Sommerfelt, and Carling 2022). Some cross-national quantitative work using aggregate measures of discriminatory institutions or women's rights finds that gender equality correlates with higher female emigration—suggesting a selection effect (Baudassé and Bazillier 2014; Ferrant and Tuccio 2015a; Gutmann et al. 2023). In contrast, other quantitative studies find the opposite: higher gender *in*equality positively correlates with female migration intentions (Ruyssen and Salomone 2018)[1]. In line with this second body of work, qualitative and micro-level studies from Africa and Latin America document cases where women migrate to escape violence, coercion, or constrained

[1] Ruyssen and Salomone (2018) find their result does not extend to migratory behavior, suggesting that gender inequality may heighten aspirations to leave while simultaneously constraining the ability to do so.

autonomy (Altrogge et al. 2024; Belloni 2019; Cook Heffron 2019; Obinna 2021; Weitzman et al. 2024).

Overall, the literature on gender and migration shows mixed, inconclusive findings. An important limitation in this literature is that it is based on observational studies that correlate aggregate national-level statistics of gender inequality with migration intentions and flows. Or on qualitative studies that focus on origin contexts with little variation in gender inequality. Neither of these approaches can analytically disentangle economic development from gender inequality. To overcome this limitation, I draw from a separate literature that examines and isolates the effects of different long-term determinants of gender inequality: deep-rooted culture and colonial legacies.

2.1 On the relationship between gender inequality and economic development

The prevalent view in sociology and political science is that the extent of gender equality can be explained primarily by forces of modernization, economic development, and the rise of modern democratic states (Fernández 2014; Inglehart and Norris 2003). But the empirical record is not quite consistent with this view. For instance, even in similar national institutional contexts or at similar levels of development, women experience remarkable variation in their well-being (Jayachandran 2015). Recent research challenges the established assumption that women´s power is greater in the Global North (Tudor and Teele 2026). Instead, it highlights that the Global South "provides striking models of the assertion of women's power that challenge established concepts of political and economic development" (Brulé 2023:33) and that early opportunities for trade in the ancient world may have been a driver of male dominance (Brulé 2023; Tudor 2022).

Over the last fifteen years, a growing literature in economics has moved away from assuming that gender equal norms are a natural byproduct of development. Instead, new methods have been developed to isolate the causal effect of different historical events and cultural factors on gender norms. The picture that emerges is far from linear: rich variation in pre-colonial cultural traditions and subsistence methods as well as differences in exposure and type of colonial institutions have left an important imprint and are essential to explain subnational variation in gender norms (see e.g. Anderson 2025; Giuliano 2017; Jayachandran 2015 for reviews). For instance, plough agriculture, irrigation dependence, pastoralism, and patrilineal descent are associated with durable patriarchal norms (Alesina, Giuliano, and Nunn 2013; Becker 2025; Carranza 2014; Hansen, Jensen, and Skovsgaard 2015), while matrilineal systems and certain missionary legacies enhance women's autonomy in ways that persist over time (BenYishay, Grosjean, and Vecci 2017; Brule and Gaikwad 2020; Calvi, Hoehn-Velasco, and Mantovanelli 2022; Nunn 2014; Robinson and Gottlieb 2021). The transatlantic slave trade has had unintended consequences on gender norms via skewed sex ratios. The trade primarily targeted men and created female-biased sex ratios that made female labor force participation and household bargaining power more widely accepted, norms that persist to today (Teso 2019). In a similar vein, colonial convict transfers in the 18th and 19th centuries also affected gender norms via skewed sex ratios in the opposite direction. These transfers to Australia of primarily male convicts generated gender norms that discouraged female

labor force participation and more conservative views of the appropriate role of women in society (Grosjean and Khattar 2019). Colonial rule also shaped gender equality via legal systems. Former British colonies adopted common law systems that are less protective of female property rights relative to the civil law systems adopted by former French colonies. This, in turn, has had long-term consequences for women's bargaining power and vulnerability to intimate partner violence (Anderson 2018, 2021).

In all these studies, the intergenerational transmission of gender norms is a key mechanism to explain the patterns found. These gender norms shape the status of women in the household and society and are understood as key determinants of the extent of gender gaps and inequality observed. The picture that emerges from this literature is that gender norms can be rather persistent and that the relationship between aggregate economic development —or the forces of modernization (Inglehart and Norris 2003)—and gender equality is far from uniform and linear.

2.2 Gender inequality as a constraint on female migration

In this section, I theorize how gender inequality can be a constraint on female migration.

My point of departure is the *aspirations–capabilities* approach, which conceptualizes migration as a function of both the desire to migrate and the ability to do so (Carling and Schewel 2018; de Haas 2021). I theorize that gender inequality constrains women´s capabilities to migrate in two ways. First, by limiting their ownership and access to economic resources and networks. Second, by raising the cost of migrating. Prior research shows that the higher the gender inequality, the stronger the sanctions women face if they migrate in pursuit of economic self-reliance and greater autonomy and transgress prescribed domestic roles and family control over their decisions[2] (Adepoju 2004; Altrogge et al. 2024; De Haas et al. 2019; Grieco and Boyd 2003). Relatedly, cross-country empirical evidence shows that people tend to be more receptive to female breadwinning as societal-level gender equality increases (Lee 2025). My argument is in line with sociological theories of male backlash (Macmillan and Gartner 1999), which claim that women experience violence when they break traditional gender roles because men feel their status threatened. Recent empirical evidence suggests this backlash is more likely to emerge with prevalent conservative gender norms, where men perceive such a break of gender roles as a threat to their notion of masculinity (Tur-Prats 2021). In sum, gender inequality diminishes women's capabilities to migrate by raising the costs of leaving and limiting access to economic resources and networks.

But gender inequality does not decrease only women's capabilities to migrate: it may even decrease their aspirations. Indeed, there is growing empirical evidence consistent with this theoretical perspective on other domains. Most notably, the inverted-u relationship between economic development and migration aspirations is consistent with this model (De Haas 2020). Ultimately,

[2] Families' disapproval is often motivated by concerns over reputation and stigma: when daughters leave without male accompaniment, parents may be viewed as having failed in their duties (Altrogge et al. 2024, p. 18).

this theory explains why some people in very poor contexts nevertheless do not have aspirations to migrate (Carling and Schewel 2018; Czaika and Vothknecht 2014; Schewel 2015). Based on this framework, I theorize that women's aspirations for a better life expand as gender relations become more equal (and their capabilities broaden).

I thus apply this approach to the study of gender inequality and theorize that, where gender inequality is severe, women's imagination of alternative life paths is limited. As gender equality improves—through access to schooling, income, and rights—women's horizons of possibility widen, enhancing the "capacity to aspire" (Appadurai 2004; Ray 2006).

Based on the above, the empirical prediction is that gender inequality suppresses migration ambitions (H1a).

2.3 Gender inequality as a driver of female migration

Conversely, there are theoretical reasons to expect the opposite relationship. High gender inequality may itself be a driver of female migration.

First, there is an argument to be made that gender inequality primarily increases the cost of *staying* rather than the cost of *leaving*. Indeed, research indicates that there are costs women face by staying which aren't necessarily avoided by not challenging traditional gender norms. Environments marked by conservative gender norms and male dominance impose heavy personal costs on women—reduced bargaining power in the household, lack of autonomy over marriage, sexuality, fertility and employment decisions, limited control of household resources, and heightened exposure to gender-based violence (Jayachandran 2015; Johnson et al. 2024). Relatedly, factors completely outside women´s control such as unemployment rate can heighten the risk of IPV (Atkinson, Greenstein, and Lang 2005; Guarnieri and Rainer 2021; Vyas and Watts 2009). Based on this empirical observation, I theorize that migration becomes more attractive than staying when the cost of staying becomes too high.

A second theoretical reason to view gender inequality as a driver of female migration is *relative deprivation theory* (Runciman 1966; Stouffer et al. 1949), which rests on the idea that humans have a tendency to engage in social comparisons to evaluate their well-being, worth, or status (Festinger 1954). The theory then proposes that humans become "relatively deprived" (Runciman 1966) when they come out dissatisfied from such comparisons. That is, when they perceive a gap between what they have and what they believe they deserve based on comparisons to others. In migration research, this theory has been mostly applied in the context of economic disparities and the main proposition is that migration decisions depend not only on absolute living standards but also on comparisons with others' (Stark and Taylor 1991). Indeed, a growing literature shows the power of relative deprivation theory to understand how economic inequality shapes both men and women's migration. Both objective and perceived economic inequality can trigger migration ambitions (Caso et al. 2025; Czaika 2013; Czaika and Vothknecht 2014; Nikolova 2023) and

subjective feelings of marginalization, exclusion, and low social status are powerful motivators (Ķešāne 2019; Mazzilli, Hagen-Zanker, and Leon-Himmelstine 2023; Vacchiano 2018).

Here, I build on this literature by applying relative deprivation theory to the context of gender inequality, which creates structural disadvantages for women in socio-economic domains. I theorize that when women in gender-unequal contexts compare their situations to relevant reference groups—whether men in their own society, women in other countries, or their own aspirations—they experience relative deprivation. In other words, I argue that these social comparisons are more likely to trigger dissatisfaction in more gender unequal contexts. This perceived gap between what women have and what they believe they deserve or could achieve in turn motivates female migration.

Overall, both theoretical accounts outlined in this section—the cost-benefit analysis between the cost of staying and leaving and relative deprivation theory— imply that higher gender inequality leads to higher female migration (H1b).

But an implication of the comparison between the cost of staying to that of leaving is that, as the severity of the experiences of gender inequality increases, so does the cost of staying. More specifically, those experiences that are violent and endanger women's lives such as exposure to gender-based violence are set to be more decisive in shaping women's intentions to migrate than experiences that are more economic in nature such as gender discrimination. This implies that violent experiences should be more likely to spark female migration than economic ones. Relative deprivation theory, in contrast, offers no reason to expect this distinction. Indeed, there is plenty of evidence that feelings of relative deprivation on economic grounds can be a powerful motivator for migrating. Further, an empirical expectation derived from relative deprivation theory is that feelings of being left behind should augment the importance of economic prospects at destination.

To summarize, both the economic and relative deprivation frameworks predict a positive relationship between gender inequality and female migration (H1b), but the economic model predicts a larger effect for more violent experiences (H2). Finally, relative deprivation predicts that the importance of economic prospects at destination rises with experiences of gender inequality (H3).

3 Research Design

3.1 Identifying the effect of gender inequality on female migration

Estimating the causal effect of gender inequality is difficult. A central challenge is that gender inequality is multidimensional and deeply intertwined with other determinants of migration, making it hard to disentangle whether gender inequality itself drives women's migration aspirations or whether it merely proxies for broader social and economic conditions.

First, gender-unequal contexts differ from more gender-equal ones along many dimensions that are independently related to migration. Women's legal rights, labor market opportunities, educational access, and exposure to violence co-vary with state capacity, economic development, and the broader opportunity structure that shapes both the desirability and feasibility of emigration. These confounders are especially problematic in cross-national research that relies on country-level averages of gender inequality indices: such measures can mask substantial within-country heterogeneity, may not reflect the local social constraints women navigate in everyday life, and make it difficult to separate gender inequality from development.

Second, there are reasons to expect reverse causality. Gender inequality may heighten women's desire to leave, but female migration can also reshape gender relations in ways that move inequality up or down. For example, women's autonomous migration can trigger backlash in origin communities, alter household bargaining dynamics, or shift norms through information flows, remittances, and changing reference groups. If migration and gender inequality co-evolve, then correlations between the two cannot adjudicate between "gender inequality as a cause of migration" and "migration as a driver of gender change."

These challenges are compounded by a basic empirical constraint: gender inequality cannot be randomly assigned. As a result, observational associations between women's migration intentions and measures of gender inequality are vulnerable to omitted-variable bias and simultaneity. This helps explain why existing empirical work—often based on aggregate indices or on qualitative studies in a small number of settings—has produced mixed and inconclusive findings regarding whether gender inequality constrains women's mobility or instead pushes women to leave.

To mitigate these inferential barriers and adjudicate between the competing hypotheses presented in the theory section, this paper leverages plausibly exogenous variation in women's status generated by cultural and institutional arrangements that precede contemporary migration regimes. That is, I exploit "some external event or institutional condition that creates exogenous variation in the social process of interest" (Gangl 2010:28). In contrast to observational studies, these designs circumvent the problem of endogenous choice into treatment.

In the first empirical strategy, I exploit exogenous variation at the individual level in gender inequality arising from precolonial kinship systems. These are cultural institutions that shape rules of inheritance and descent. Even though in most of the world social identity and intergenerational economic resources travel through men, matrilineal descent groups exist in every continent and they amount to about 10% of the world's population. Indeed, prior research has shown it is associated with more gender equal norms and lower incidence of intimate partner violence (Lowes 2022; Robinson and Gottlieb 2021).

Second, I exploit a natural experiment based on the arbitrary drawing of colonial borders in Africa that cut across ethnic homelands and the imposition of the colonizers' legal systems. Prior research has established that common law systems in Africa have for decades offered a much weaker

protection of female property rights and are to this day associated with higher prevalence of intimate partner violence and lower female sexual autonomy. Thus, these historical events allow me to isolate the effect of weaker female property rights and its associated effects on the status of women by comparing women from the same ethnic group that fell on different sides of the colonial border and live under different colonial legal systems.

Third, I triangulate the evidence presented in the first two empirical strategies by studying the relationship between gender inequality and female migration intentions at the individual level. To this end, I analyze original data from representative surveys fielded in Senegal, The Gambia, and southern Nigeria. These surveys contain items on a wide range of experiences of gender inequality of varying severity —from direct and indirect experiences of gender-based violence to gender discrimination—as well as items on migration aspirations and concrete plans to leave. Through an embedded survey experiment, I test whether women exposed to higher gender inequality value gender equality at destination more.

Finally, I go beyond migration intentions and investigate actual migration. To do so, I use an original, representative survey of West African immigrants in Germany. All in all, the combination of these five approaches provides a robust empirical design, as the shortcomings of each approach are compensated for by the others. In the following sections I present each of them in detail and discuss results for each approach separately.

4 Matrilineal kinship and female migration

As a first source of exogenous variation in gender inequality at the individual level, I use matrilineal kinship. Kinship systems determine group membership and social obligations to group members. When such a system is matrilineal, it means descent and inheritance are traced through the female line. Although relatively rare worldwide, it represents an important source of variation in gender relations. According to Murdock's *Ethnographic Atlas*, only about 13 percent of societies globally trace lineage matrilineally, but the practice is far more common in Africa—found in roughly 16 percent of ethnic groups, with a particularly high concentration in the south-central "matrilineal belt" stretching from Zambia and Malawi to Mozambique and parts of Tanzania. Smaller matrilineal communities also exist in West Africa, such as among the Akan in Ghana and Côte d'Ivoire or the Lobi in Burkina Faso (see Figure 1 for a map of variation in matrilineal and patrilineal kinship in Africa). These systems differ in form but share a defining feature: descent, inheritance, and often residence are organized through the mother's rather than the father's line. In contrast to patrilineal systems, where property and authority flow through men and their sons, matrilineal systems allocate land and lineage rights to women and their daughters or to a woman's brothers and nephews. These practices embed women within networks of kin support and give them more secure claims to land and social standing, which in turn enhance their bargaining position within marriage and community life. By granting women stronger claims to land and kin support, and by anchoring married couples in the wife's natal community in some cases, matrilineal

systems provide women with more secure social positions and better exit options in case of conflict or divorce.

A growing body of research shows that these historical patterns continue to shape the relative status of women today. Using ethnographic data from the *Ethnographic Atlas*, Lowes (2022) analyzes geo-located data on the wellbeing of over 400,000 women and documents that African societies with matrilineal descent exhibit higher female bargaining power, greater control over land, and more progressive gender norms than patrilineal ones. Robinson and Gottlieb (2021) further demonstrate, with cross-national Afrobarometer data, that matrilineality is robustly associated with narrower gender gaps in civic and political participation. The relationship is likely causal and remains robust after controlling for ecological and economic factors such as livestock dependence, plough agriculture, or education. Their Malawi case study shows that the key mechanism lies not only in the transfer of resources but in the enduring social expectations it creates: sustained access to land and kin support generates shared norms about women's decision-making authority and legitimate influence in public life. Together, this evidence suggests that matrilineal kinship operates as a durable institutional arrangement that systematically enhances women's status and participation across generations.

A critical feature of matrilineal kinship for identification purposes is that it affects women's status primarily through cultural norms and social expectations rather than through economic development. Evidence from across sub-Saharan Africa demonstrates that matrilineal kinship systems are, if anything, associated with slightly lower levels of household wealth compared to patrilineal systems (Lowes 2022). Moreover, the effects of matrilineality on women's education are mixed and inconsistent, with some specifications showing small negative effects and others showing no significant relationship. This pattern is crucial for causal inference: it indicates that matrilineal kinship's well-documented positive effects on women's autonomy, political participation, and protection from violence (Brule and Gaikwad 2020; Lowes 2022; Robinson and Gottlieb 2021) operate *despite* rather than *because of* greater economic resources. The mechanism instead runs through gender norms, inheritance practices, and post-marital residence patterns that fundamentally alter women's bargaining power within households and their support networks in the broader community. This makes variation in matrilineal kinship particularly valuable for isolating the effect of gender inequality on migration: because matrilineality does not systematically improve economic conditions, any observed effects on women's migration behavior can be more credibly attributed to differences in gender norms and women's autonomy rather than to confounding differences in economic development.

4.1 Data

To study how within-country variation in gender inequality determined by historical factors shapes the gender gap in migration aspirations, I combine data from the *Ethnographic Atlas* (Murdock 1967), which contains details on kinship and historical subsistence practices by ethnic group, with the 7th round of the Afrobarometer survey (2016-2018).

The Afrobarometer contains data on the migration aspirations and plans of 45,823 individuals across 34 African countries and 485 ethnic groups. To measure migration aspirations, I rely on an item asking "How much, if at all, have you considered to moving to another country to live?" (Q68A). Answers range from "Not at all" (0), "A little bit" (1), "Somewhat" (2), or "A lot" (3). To measure migration plans, I use a survey item that asks respondents whether they have made concrete arrangements to leave the country within the next 12 months. I recode this variable so that 0 means that the respondent indicated no migration aspirations in the previous aspirations question, 1 indicates that the respondent has migration aspirations but is not currently making any specific plans or preparations, 2 indicates that the respondent is planning to move in the next year or two but not yet making preparations, and 3 indicates the respondent is currently making preparations to move, like getting a visa.

The Ethnographic Atlas is an extensive anthropological database that contains detailed ethnographic information on the characteristics and ways of life prior to industrialization and colonial contact of 1,267 ethnic groups from around the world. Of these groups, 511 are in Africa. To match the *Ethnographic Atlas* (EA*)* to the Afrobarometer dataset, I relied on coding decisions made by previous scholars (e.g. see Becker 2025; Gershman 2020; Kincaide, McGuirk, and Nunn 2025; Lowes and Nunn 2024; Nunn and Wantchekon 2011; Robinson and Gottlieb 2021) as well as on external sources such as the Ethnologue, the eHRAF World Cultures database, Glottolog, or the Joshua Project[3].

Out of the 467 ethnicities listed on the 7th round of the Afrobarometer, 433 were matched to an entry in the *Ethnographic Atlas* which is 93% of the survey respondents who listed an ethnic identity[4] and 77% of all respondents of the 7th round of the Afrobarometer.

[3] The Joshua Project is an evangelical Christian organization that provides information on the ethnic groups of the world that have the lowest number of followers of evangelical Christianity. The data collected come from various sources such as the census reports, the Ethnologue, the Church Planting Progress Indicators, and the World Christian Database.

[4] In Sudan and Tunisia, the question was not asked (N= 2,399). Additionally, some respondents reported no ethnic identity or said Other (N=5,470).

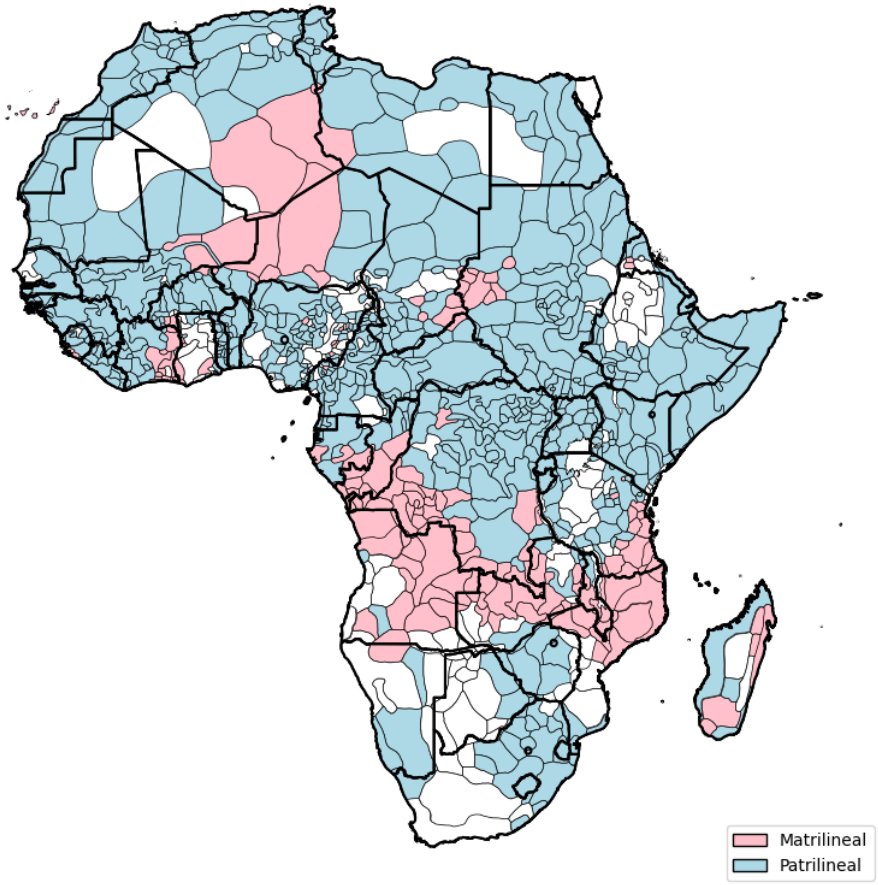

Figure 1: The distribution of kinship systems in Africa (in white, groups that have ambilineal, bilateral, or mixed descent).

4.2 Empirical strategy

Empirically, I follow from Lowes (2022) who investigated how matrilineality shaped outcomes for women and estimate the following:

$$y_{ijct} = \beta_1 matrilineal_j + \boldsymbol{X}_i'\beta + \boldsymbol{Z}_j'\theta + \boldsymbol{G}_v'\delta + \rho_t + \gamma_c + \varepsilon_{ijct} \quad (1)$$

where y_{ijct} is the outcome (migration aspirations and plans) for respondent *i* from ethnic group *j* in country *c* interviewed in year *t*, *matrilineal* is a variable that equals 1 if respondent *i*'s ethnic group *j* is matrilineal and 0 otherwise, $\mathbf{X_i}$ is a vector of individual and household level controls (age, education, employment status, religion, living conditions, and an urban indicator), $\mathbf{Z_j}$ is a vector of controls for historical characteristics of ethnic group *j* to proxy for pre-colonial level of development (a measure of complexity of settlement patterns and the level of jurisdictional

hierarchy beyond the local community[5]), $\mathbf{G_v}$ is a vector of geo-climatic controls (malaria suitability, tse tse fly suitability, climate zone, 10 year average in precipitation index, 10-year average in heat wave magnitude), ρ_t are month-year fixed effects, and γ_c are country fixed effects.

By applying country fixed effects, I estimate a rather demanding and conservative model because much of the variation is in fact not within country borders as can be seen in Figure 1. This approach also rules out potential confounders at the country level.

4.3 Matrilineal kinship results

Table 1 reports the estimated relationship between matrilineal descent and women's migration aspirations and plans. Across specifications, the coefficient on matrilineal descent is negative. The association is statistically significant for migration aspirations, while the estimate for migration plans is smaller and not statistically significant. For the aspirations outcome, the effect is robust to the sequential inclusion of precolonial development controls, geo-climatic variables, and country and time fixed effects. In the preferred specifications with the full set of controls (Columns 3–4), the estimated coefficient ranges between –0.09 and –0.04 points, corresponding to roughly a 3–5 percent reduction in migration aspirations relative to the sample mean. The magnitude of the aspirations coefficient remains stable when adding household and individual-level covariates, suggesting that the observed difference is not driven by compositional differences in education, age structure, or urban residence.

Table 1. Matrilineal kinship and female migration intentions

	(1)	(2)	(3)	(4)	(5)
VARIABLES	Migration aspirations (0 – 3)			Migration aspirations (0 - 1)	Migration plans (0 – 3)
Matrilineal	-0.0882**	-0.0907**	-0.0945**	-0.0369**	-0.0146
	(0.0418)	(0.0444)	(0.0400)	(0.0180)	(0.0318)
Constant	0.00924	0.127	-0.513	-0.280*	-0.384*
	(0.0633)	(0.148)	(0.435)	(0.146)	(0.206)
Observations	15,522	14,740	14,740	14,740	14,076
R-squared	0.063	0.066	0.121	0.125	0.114
Estimation Method	OLS	OLS	OLS	OLS	OLS
Individual and HH Controls	No	No	Yes	Yes	Yes
Geo-climatic controls	No	Yes	Yes	Yes	Yes
Pre-colonial characteristics controls	Yes	Yes	Yes	Yes	Yes
Country and month-year FE	Yes	Yes	Yes	Yes	Yes

[5] Variables v30 and v33 respectively in the Ethnographic Atlas.

Robust standard errors (clustered at the ethnicity level) in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Substantively, these results imply that long-standing kinship systems that historically granted women greater economic and social autonomy are associated today with lower female migration aspirations. The pattern is consistent with the interpretation that in societies where women enjoy stronger resource claims, higher social standing, and greater bargaining power—features of matrilineal descent—women face lower "costs of staying" and hence weaker incentives to leave. Conversely, women in patrilineal groups, where control over land, inheritance, and household decision-making remains concentrated in male hands, express stronger desires to migrate as a potential route toward autonomy and security. Overall, the findings provide evidence that deep-rooted cultural norms that provide a higher status to women are associated with a dampening of female migration aspirations across African societies.

5 Colonial legacies and female migration

In this paper, I use a second source of exogenous variation in the extent of gender inequality that comes from a natural experiment: colonial borders. European powers imposed their own legal systems across Sub-Saharan Africa, often dividing long-established ethnic homelands with arbitrarily drawn borders. When these countries gained independence, they inherited and retained the legal traditions of their colonizers—British *common law* or continental European *civil law*—creating a natural experiment in the assignment of legal regimes (La Porta, Lopez-de-Silanes, and Shleifer 2008). Under common law, the *Married Women's Property Act* of 1882 introduced a system of *separate marital property*, allowing women to hold property individually but granting no claim over household assets upon divorce. This framework offered limited financial security for women without independent income and thus weaker bargaining power within marriage. By contrast, civil law traditions enshrined a *community property* system that recognized joint ownership of marital assets and explicitly protected women's economic rights at dissolution, enhancing their exit options and within-household bargaining position (Glendon 1989). Figure 2 shows the variation in female property rights in Africa. The map superimposes ethnic homelands in Murdock's Ethnographic Atlas (borders in grey) with contemporary colonial borders (in blue). The Figure thus shows that some ethnic homelands change color because a portion of it falls under a common law system while another falls under a civil law system, creating within-ethnic group variation in female property rights.

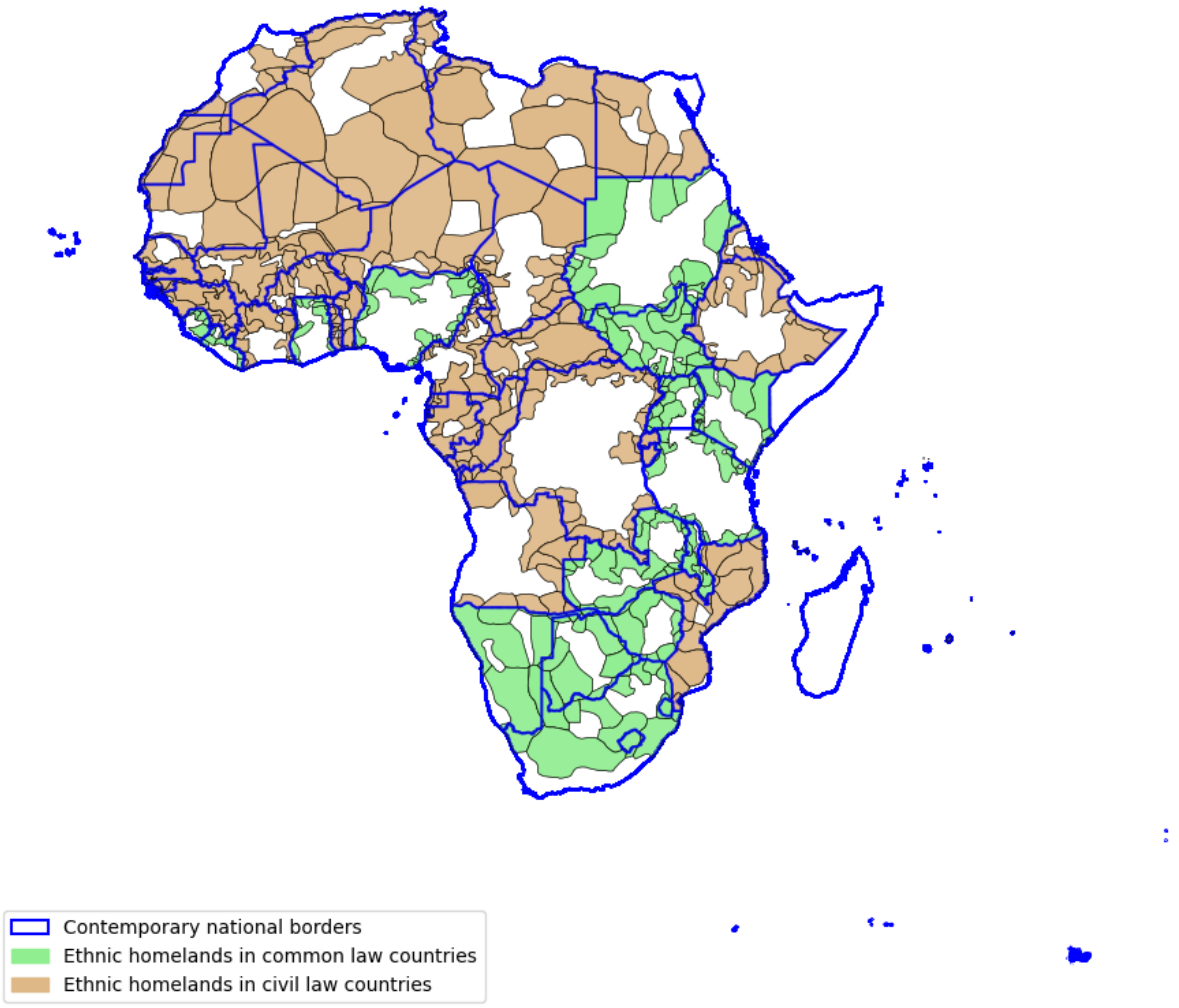

Figure 2: Graphical depiction of partitioned ethnic homelands and the legal systems they fall under.

While the women's rights movements of the 1960s led to sweeping family-law reforms in Europe and North America, equalizing these systems, corresponding changes did not occur in Africa, where decolonization and state-building took precedence over reforming family law (Htun and Weldon 2012). As a result, these colonial legal origins continue to structure women's status and vulnerability today. Empirical research demonstrates that women living in common-law countries experience significantly higher rates of intimate partner violence and female HIV than their counterparts under civil-law regimes (Anderson 2018; 2021). Using the variation generated by colonial borders that split ethnic homelands across countries with different legal systems depicted in Figure 2, Anderson shows that these differences are causal: weaker female marital property rights systematically reduce women's bargaining power, heightening both domestic abuse and exposure to health risks.

A potential concern with using colonial legal origins as a source of variation in women's property rights is that common law versus civil law systems may be differentially associated with economic

development, which could confound the interpretation of my findings. La Porta, Lopez-de-Silanes, and Shleifer (2008) demonstrate that common law legal systems are generally associated with stronger property rights protections, better investor protection, and more developed financial markets, which in turn promote economic growth. This concern is minor for several reasons. First, prior research has established that individuals from ethnic groups that were split by colonial borders are economically disadvantaged within their respective countries (Michalopoulos and Papaioannou 2016), so the extent to which common law may be associated with more economic growth, it does not necessarily advantage individuals from these groups.

Second, the variation I exploit here decouples the positive correlation between economic development and gender equality usually found when using national level averages. Here, better economic development comes with more gender inequality.

Third, I control for variables at the individual and household levels such as age, education, employment status, religion, living conditions, and an indicator for urban setting.

5.1 Data and empirical strategy

Here, I also use the Afrobarometer round 7 as in the matrilineal analysis and use the same variables as outcomes.

I follow the empirical strategy from Anderson (2021), who studies how this variation in female property rights affected intimate partner violence. More specifically, I estimate the following:

$$y_{ijct} = \beta_1 commonlaw_c + \boldsymbol{X}_i'\beta + \boldsymbol{G}_v'\delta + \rho_t + \gamma_j + \varepsilon_{ijct} \quad (2)$$

where y_{ijct} is the outcome (migration aspirations and plans) for respondent *i* from ethnic group *j* in country *c* interviewed in year *t, $commonlaw_c$* is a variable that equals 1 if country c is a common law country, $\mathbf{X_i}$ is a vector of individual and household level controls (age, education, employment status, religion, living conditions, and an urban indicator), $\mathbf{G_v}$ is a vector of geo-climatic controls (malaria suitability, tse tse fly suitability, climate zone, 10 year average in precipitation index, 10-year average in heat wave magnitude), ρ_t are year-month fixed effects and γ_j are ethnicity fixed effects. The inclusion of ethnicity fixed effects means that $\beta_1$is identified by comparing women from the same ethnic group who reside in countries with different colonial legal systems. Standard errors are clustered at the ethnic homeland and country level to account for spatial correlation (Cameron et al., 2011).

5.2 Results

Table 2 presents the results linking colonial legal origins—and the associated differences in female property rights—to women's migration intentions. Across all model specifications, the coefficient for *Common law* (indicating countries where women have weaker marital property rights) is

positive and statistically significant at the 1 percent level for both migration aspirations and migration plans. The estimated effects remain stable across specifications and robust to the inclusion of individual-, household-, and geo-climatic controls as well as ethnicity and month–year fixed effects. In the preferred specification, women residing in common-law countries report migration aspirations roughly 0.30–0.36 points higher than those in civil-law countries—an increase of about 10–15 percent relative to the sample mean. For migration plans, the coefficients are also positive and statistically significant, indicating that women living under weaker property rights are more likely to report having made concrete arrangements to migrate within the next year. That the point estimates are smaller for migration plans likely reflects that concrete planning is a more demanding and less common outcome than general migration aspirations.

Table 2. Female property rights and migration intentions

VARIABLES	(1)	(2)	(3)	(4)	(5)
	Migration aspirations (0 – 3)			Migration aspirations (0 – 1)	Migration plans (0 – 3)
Common law (weaker female property rights)	0.359***	0.300***	0.306***	0.121***	0.149***
	(0.0809)	(0.0888)	(0.101)	(0.0408)	(0.0542)
Constant	0.613***	-0.0703	0.175	0.197	0.147
	(0.136)	(0.246)	(0.239)	(0.134)	(0.165)
Observations	16,302	16,302	15,219	15,219	14,534
R-squared	0.089	0.143	0.141	0.145	0.136
Estimation Method	OLS	OLS	OLS	OLS	OLS
Individual and HH Controls	No	Yes	Yes	Yes	Yes
Geo-climatic controls	No	No	Yes	Yes	Yes
Ethnicity and month-year FE	Yes	Yes	Yes	Yes	Yes

Standard errors (clustered at the ethnic and country level) in parentheses
*** p<0.01, ** p<0.05, * p<0.1

These findings shed further light on the impacts of colonial legacies and the work studying the impacts of weak female property rights on women's wellbeing specifically (Anderson 2018, 2021). In the migration context, such legal legacies appear to have enduring consequences: the structural subordination of women continues to shape not only their well-being but also their aspirations and concrete plans to move. In sum, weaker female property rights transform legal and economic dependence into both a constraint on autonomy and a powerful driver of mobility.

6 Individual level relationship between gender inequality and female migration intentions

The empirical approaches presented so far have allowed me to test H1. In this section, I examine the individual-level relationship between experiences of gender inequality of varying severity and female migration intentions to be able to test H2 and H3.

6.1 Data: TRANSMIT surveys

For this analysis, I draw on original survey data collected within the TRANSMIT project. The surveys are face-to-face and representative of the young population (16—36) in The Gambia (N=1,089 women), the Senegalese regions of Dakar and Casamance (N= 1,362 women), and Edo state, Nigeria (N=785 women). The final analytical sample contains 3, 236 women. The surveys were conducted face-to-face by trained enumerators using random stratified sampling within each country (see Appendix B for further details about these surveys). Below I elaborate on the survey items I use as dependent and main independent variables (summary statistics of all variables used are shown in Appendix C).

Migration aspirations and plans. To measure migration aspirations, we asked respondents the following survey question: "How much are you considering moving to another country to live there ("live" meaning staying for more than 3 months)?" In the survey in Senegal and The Gambia, the variable ranges from 0 ("I don't want to move at all") to 100 ("I really want to move"). In the survey in Nigeria, the variable ranges from 0 () to 5 ("I really want to move"). I rescaled the variable in Senegal and The Gambia so that it also ranges from 0 to 5. To measure migration plans, we asked respondents whether they had made concrete plans to move to another country within the next 12 months. The outcome measure equals 1 if the respondent answered yes.

Experiences and fears of gender-based violence (GBV). To measure experiences of gender-based violence, I rely on three items. The first item measures *exposure* and it asks female respondents whether they have ever experienced violence at the hands of a partner or male relative. Possible answers are yes, no, or prefer not to answer. I also measure *exposure* in their social network. To this end, I ask female respondents for the number of female relatives and friends that have experienced gender-based violence. Finally, I measure *fear of GBV* by asking respondents whether they have ever feared experiencing such violence. Here, possible responses were again yes, no, or "prefer not to answer".

Experiences of gender discrimination. To measure milder experiences of gender inequality, I use an item that asks respondents the following: "In the past year, how often, if at all, have you personally felt discriminated against or harassed based on any of the following: your gender". Answer options were never, rarely, or often.

6.2 Empirical strategy for correlational analysis

To investigate the relationship between gender inequality and migration intentions at the individual level, I estimate OLS models of the following form:

$$migration_i = \beta_1 gender_ineq_experience_i + X_i'\beta + \eta_e + \varphi_p + \alpha_c + \varepsilon_i \quad (3)$$

Where $migration_i$ is the outcome (migration aspirations or plans) of respondent i in country c interviewed by enumerator e in survey precinct p, $gender_ineq_experience_i$ stands for a measure of individual experiences of gender inequality (direct experiences of gender-based violence, fears of experiencing gender-based violence, having women in one's network who have experienced gender-based violence, an index combining the three items, or experienced gender discrimination); X_i is a vector of individual level control variables (age, marital status, level of education, religion), η_e are enumerator fixed effects, φ_p capture survey precinct fixed effects, and α_c are country fixed effects. This set up allows me to test H2 (whether violent experiences have a stronger impact than economic ones).

6.3 Correlational analysis: Results

Figure 3 summarizes the individual-level associations between women's exposure to gender inequality and their migration intentions (see full regression results in tables C2.2 and C2.3 in the Appendix). Two clear patterns emerge. First, direct experience of gender-based violence (GBV) and indirect exposure through close networks (having female relatives or friends who have experienced GBV) are both positively and statistically significantly associated with migration aspirations and migration plans, even after controlling for individual and household characteristics as well as enumerator, survey-precinct, and country fixed effects. The composite GBV index, which combines the three dimensions of exposure, also shows a robust positive association with both outcomes. Second, in contrast, neither fear of GBV nor experiencing gender discrimination predict either aspirations or plans.

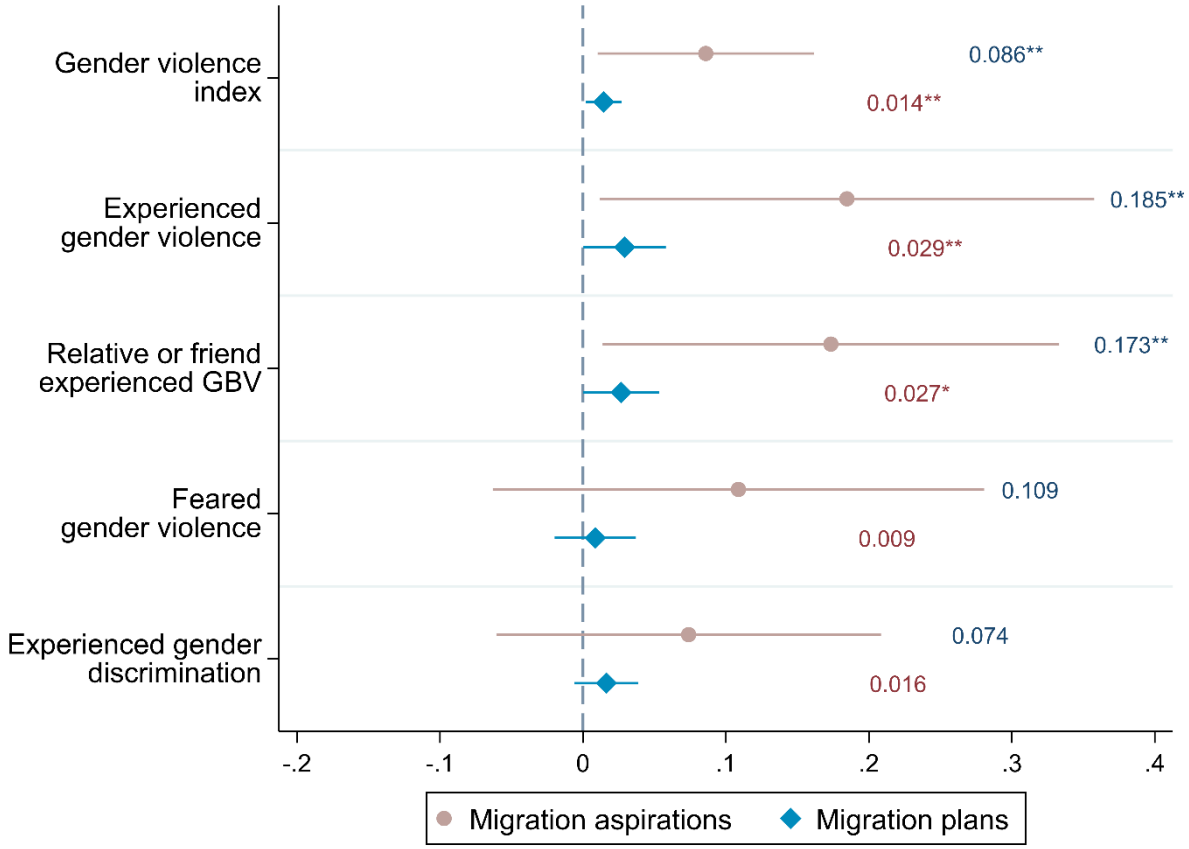

Figure 3: Individual level relationship between different experiences of gender inequality and female migration aspirations and plans

Beyond establishing the relationship exists at the individual level, these results are also helpful to understand mechanisms. Figure 3 shows support for H2 as it indicates that violent experiences of gender inequality – exposure to actual violence, both experienced directly and via close female relatives or friends – do predict higher migration aspirations and plans. In contrast, more diffuse experiences (fearing GBV without having experienced GBV) or experiences that are more economic in nature (gender discrimination) do not correlate with migration intentions.

These results suggest that female migration intentions respond to changes in the cost of staying. That is, violent experiences of gender inequality fundamentally alter the calculus of staying versus leaving. When gender inequality manifests in its most extreme forms (realized gender-based violence experienced either directly or via close networks), the *costs of remaining* become disproportionately high. Migration thus becomes a rational strategy to minimize this cost, even when migration itself is risky or uncertain. Put differently, gender-based violence increases the *cost of staying* past the threshold and leaving becomes preferable to staying, making mobility a viable and, for some, necessary response to constrained life options. While it cannot be ruled out that relative deprivation mechanisms are also behind results, this theoretical framework offers no

explanation for the fact that violent experiences predict migration intentions but more diffuse experiences or more economic experiences such as gender discrimination do not.

Taken together, these individual-level findings mirror the patterns found in previous sections. Across all empirical approaches, the evidence consistently shows that where women's status is weaker, female migration intentions are stronger.

6.4 Survey experiment

To complement the correlational evidence at the individual level and test H3, I embedded a conjoint experiment into the original surveys in Senegal, The Gambia, and southern Nigeria. In it, female respondents were asked to choose between two potential countries to migrate to. I randomly vary two dimensions: (1) how much money they can make and (2) the level of gender equality.

Respondents saw the conjoint only once, and the dimensions were fully randomized. The experiment wording was as follows: *"Imagine you could freely choose to migrate between two countries. In Country A, you would earn [twice as much / half as much] money as in Country B, and the country is [much more / much less] gender equal than Country B. By 'gender equal' we mean the extent to which women have the same rights and opportunities as men."* Respondents were then asked to indicate which country they would prefer to migrate to. This simple design was chosen due to the generally low levels of education and the fact that the surveys were administered face-to-face and the enumerator read the questions out loud to the respondents. A more complicated design with more dimensions could risk lowering data quality due to cognitive fatigue.

This design allows me to compare the importance respondents place on economic versus gender equality considerations to investigate the extent to which gender equality is a central factor in women's migration decision-making. Even though merely correlational, a second objective is to look for evidence that women's past experiences of gender inequality alter their preferences of destination choice. This way, I can test whether these experiences rise the importance of economic prospects at destination (H3).

6.5 Empirical strategy: survey experiment

To analyze the survey experiment, I estimate the following model:

$$chooseA_i = \beta_1 moremoneyA_i + \beta_2 genderequalA_i + X_i'\beta + \eta_e + \varphi_p + \alpha_c + \varepsilon_i \qquad (4)$$

Where $chooseA_i$ is a dichotomous variable that equals one if the respondent chose country A and 0 otherwise, $moremoneyA_i$ is a dummy that indicates the respondent saw the version of the survey experiment where in country A you can make twice as much money as in country B and $genderequalA_i$ is a dummy that indicates the respondent saw the version of the survey where country A is presented as much more gender equal than country B. For statistical precision, I also

include a vector of individual-level controls (age, education, employment status, marital status, religion) as well as enumerator (η_e), survey precinct (φ_p), and country fixed effects (α_c).

To test whether women with experiences of gender inequality place more importance on gender equality when choosing a destination country, I interact the two measures (the GBV index and the indicator of experiences of gender discrimination from the previous section) with the two dimensions of the conjoint (*moremoneyA$_i$* and *genderequalA$_i$)*. Specifically, I estimate the following model:

$$chooseA_i = \beta_1 moremoneyA_i + \beta_2 genderequalA_i + \beta_3 R_i + \beta_4 (genderequalA_i \; x \; R_i) + \beta_5 (moremoneyA_i \; x \; R_i) + X_i'\beta + \eta_e + \varphi_p + \alpha_c + \varepsilon_i \quad (5)$$

where R_i stands for either (i) a dummy indicating the respondent had any experience of gender-based violence (the GBV index described above being above 0) or (ii) a dummy indicating the respondent had any experience of gender discrimination. That is, I will fit separate models for each of these two types of experiences of gender inequality.

6.6 Survey experiment: Results

Figure 4 plots the results of the conjoint experiment (full regression results shown in Appendix table C2.4). In panel A, I show the main effects of the two dimensions (all plots show average marginal effects). This panel shows that, holding other attributes constant, describing Destination A as more gender-equal than B increases the probability that women choose A by 13 percentage points, whereas offering twice the earnings increases choice by 3.4 percentage points[6]. The implied tradeoff is that the gender-equality signal matters far more than the income signal: its AMCE is roughly four times as large.

Figure 4's panels B and C examine effect heterogeneity by respondent experiences of gender inequality (following equation 5). Plot B shows average marginal effects for each dimension for respondents with and without experiences of GBV. Results show that respondents who report GBV experience display a much stronger estimated preference for gender-equal destinations. In the conjoint, women without GBV experience are modestly more likely to choose a destination when it is more gender-equal (about +7.6 percentage points). By contrast, for women who report GBV experience, the same gender-equality attribute has a much larger impact—about +24.2 percentage points, i.e., an additional +16.6 percentage points relative to women without GBV experience. In other words, the estimated gender-equality preference is roughly three times as large among respondents who report GBV experience. In contrast, I find no support for H3: there is no evidence that GBV experiences affect the importance of economic prospects at destination.

[6] This pattern is even more pronounced for respondents with migration aspirations, see Figure C2.1 in Appendix C.

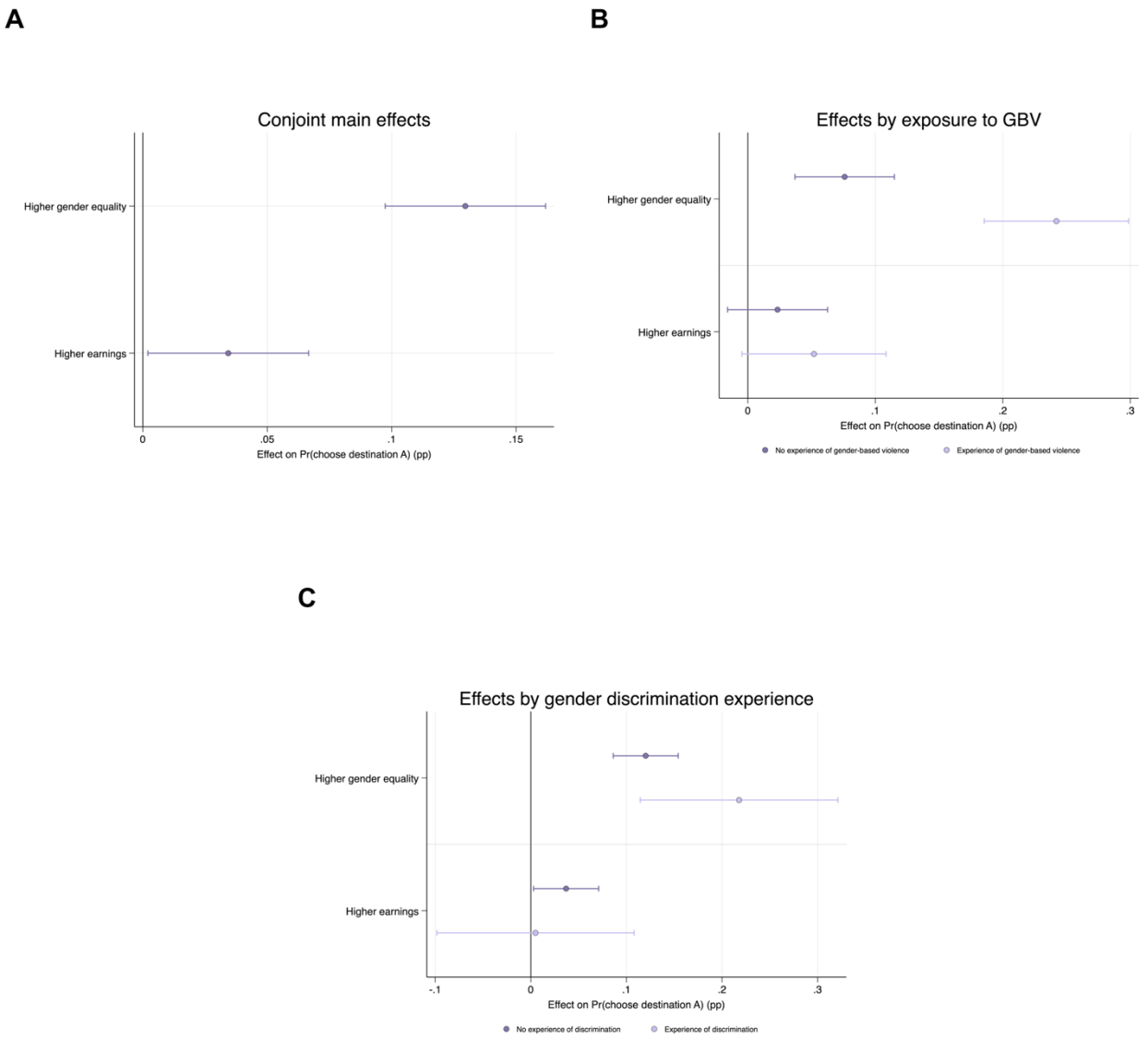

Figure 4: Results of the conjoint experiment

Finally, Figure 4's Panel C explores heterogeneity by experiences of gender discrimination. The plot suggests that experiences of gender discrimination are associated with a substantially stronger preference for gender-equal destinations: the gender-equality cue raises the probability of choosing destination A by about 12 pp among those without discrimination experiences, but by roughly 22 pp among those who report discrimination (a difference of about 10 pp). Nevertheless, the interaction is imprecisely estimated, and it is not statistically significant at conventional levels. Here again I find no support for H3: the importance of economic prospects at destination does not differ depending on experiences of gender discrimination.

In sum, the results presented in this section are aligned with those presented in the previous section: violent experiences of gender inequality seem to be the most powerful in shaping destination choices, tripling the importance of gender equality at destination (support for H2). These findings are again consistent with an explanation based on changes in the cost of staying triggering female migration. Relative deprivation, in contrast, cannot explain why experiences of gender inequality do not increase the importance of economic prospects at destination (no support for H3).

7 Migratory behavior

So far, the analysis in this paper has focused on migration intentions. Even though there is a strong positive relationship between migration aspirations and actual migration (Docquier, Peri, and Ruyssen 2014; Tjaden, Auer, and Laczko 2019), there is an open debate about the extent to which this link may be weaker for female migration (e.g. see Ruyssen and Salomone 2018). To move beyond migration intentions, I use original data from the first representative survey of West African immigrants in Germany[7]. This dataset is particularly suited for this exercise for two reasons[8]. First, Germany is a major destination country in Europe but was not a major colonial power in West Africa. Therefore, colonial ties are less likely to confound the relationship than if the data came from France or the UK. Second, the survey contains a question on respondent ethnicity. This item is crucial to be able to match immigrants to their ethnic homelands of origin and thus investigate the extent to which the exogenous variation in gender inequality presented in this paper – matrilineal kinship and weaker female property rights due to colonial legacies – extends beyond intentions into realized migratory behavior. To the best of my knowledge, no other representative survey of immigrants in Europe contains information on respondent ethnicity that makes it possible to conduct such an analysis.

To test whether the patterns found so far extend to actual migration, I examine the extent to which women from more gender-unequal contexts as defined by the two first empirical strategies (non-matrilineal descent and common law systems) are overrepresented in the immigrant sample. I start with an analysis of matrilineal kinship and realized female migration. Using the same approach as outlined in section 4.1, I matched the ethnicities of the female respondents in the survey to the Ethnographic Atlas (Murdock 1967). This process allows me to construct a dichotomous variable that equals 1 if a given ethnic group is matrilineal and 0 otherwise. After constructing this variable, I compare the share of matrilineal women in the Afrobarometer dataset (subset to ECOWAS

[7] In accordance with BAMF-Forschungsdatenzentrum (2021), we cooperated with the Research Data Centre (Forschungsdatenzentrum) of the German Federal Office for Migration and Refugees (Bundesamt für Migration und Flüchtlinge, BAMF) to obtain personal addresses of our target population randomly drawn from the German Central Registry of Foreigners (Ausländerzentralregister; AZR). The target population consisted of foreign-born adults (18+) from the 15 ECOWAS member states residing in Germany. We contacted 10,000 individuals to obtain a target sample of about 1,000 respondents (AZR, 2023).

[8] The main sources of data on migrant populations in Germany, the *SOEP Migration Sample* and the *IAB-BAMF-SOEP Survey of Refugees*, do not contain representative samples of this target population.

member states[9]) to the share of matrilineal women in the representative sample of immigrants from ECOWAS countries in Germany. The goal of this approach is to provide suggestive evidence that the ratio of matrilineal vs non-matrilineal kinship in destination may be skewed, relative to what the ratio is in the origin contexts.

Table 3 shows the results from this exercise, and they indicate that women from matrilineal ethnic groups (with a more gender-equal cultural background) are underrepresented in the migrant sample. I interpret this as suggestive evidence that they migrate to Europe at lower rates than women from non-matrilineal groups (more gender unequal cultures).

Table 3. Comparison by kinship systems between origin context and destination (immigrants)

	Afrobarometer 7 (only ECOWAS countries)		Representative survey of immigrants from ECOWAS countries in Germany	
Descent type	N	Percent	N	Percent
Matrilineal	138	1.77	0	0
Other (Patrilineal, Ambilineal, Bilateral, Mixed)	7,676	98.23	263	100
Total	7,814	100	263	100

Next, I move on to analyzing whether the effects of the second empirical strategy – the natural experiment that created variation in female property rights – can still be observed when looking at actual female migration. To do this, the information on respondent ethnicity on the survey of West African immigrants in Germany is again crucial. This item allows me to assign respondents to an ancestral ethnic homeland in Murdock´s Ethnographic Atlas. Knowing from which ancestral homeland respondents come from allows me to identify which women come from the same ethnic group that was partitioned by colonial powers operating under different legal systems. The objective is to compare the share of women in the immigrant sample who come from a common law system (weaker female property rights and higher gender inequality) to those coming from a civil law system, taking into account the population size in origin.

To this end, I calculated the number of women in the immigrant sample from each country-ethnic homeland dyad. That is, in those cases where ethnic homelands are partitioned by country borders, there is a count for the number of women from an ethnic homeland that come from one country of origin and another count for women from the same ethnic homeland but who come from the other side of the international border. To take into account population size of each ethnic homeland country dyad, I calculate the number of women in the Afrobarometer sample from each dyad. The

[9] The ECOWAS member states are Benin, Burkina Faso, Cabo Verde, Cote d'Ivoire, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo.

Afrobarometer is based on nationally representative samples, and I use the number of women sampled in each dyad as an (imperfect) proxy of the size of the female population in them.

Table 4. Effect of a common law system on the number of female immigrants in the representative sample of West Africans in Germany, taking population size into account

VARIABLES	(1) Number of women per ethnic homeland-country of origin dyad in Germany immigrant sample	(2)
Common law system	6.912**	9.861*
	(3.268)	(4.519)
	[0.041]	[0.052]
Number of women in Afrobarometer sample in a given ethnic homeland-country dyad	0.052***	0.071**
	(0.014)	(0.025)
	[0.001]	[0.015]
Constant	-2.720	-8.684
	(2.695)	(12.643)
	[0.319]	[0.506]
Observations	44	44
R-squared	0.313	0.836
Estimation Method	OLS	OLS
Ethnicity FE	No	Yes

The unit of analysis is an ethnic homeland-country dyad. Standard errors in parentheses, p-values in brackets

*** p<0.01, ** p<0.05, * p<0.1

Table 4 shows the results of regressing the number of women in the migrant sample in Germany per ethnic homeland-country of origin dyad on a dummy that equals 1 if the dyad has a common law system. Regressions in both columns 1 and 2 control for the size of the female population in the dyad using the number of women in the Afrobarometer sample. In the second column, I add ethnicity fixed effects to compare only women from the same ethnic homeland. Overall, the results in Table 4 are consistent with the expectation that women from contexts with weaker female property rights and higher gender inequality are overrepresented in the immigrant sample relative to women from the same ethnic group who come from a civil law system. Even though I control for the size of the female population in origin and restricting comparisons to only women from the same ethnic homeland but that live under different legal systems, this analysis should be interpreted as suggestive rather than definitive given the small number of dyads and the count nature of the outcome.

In sum, these results provide suggestive evidence that the patterns documented for migration intentions may also be visible in realized migration.

8 Discussion

As with most observational research, the relationship between gender inequality and women's migration aspirations raises questions of identification and causal interpretation. One recurrent concern in migration research is selecting on the dependent variable. Surveying prospective migrants through representative samples in origin to capture the early stages of the migration process significantly reduces this concern (e.g. see Esipova, Ray, and Srinivasan 2011; Ferwerda and Gest 2021). Likewise, the focus on the young population (15-35) in Senegal and the Gambia further reduces the risk that observed relationships reflect selective emigration of women who have already left.

Another concern is reverse causality: gender inequality may indeed heighten women's desire to migrate, but higher female migration could also increase gender inequality by creating male backlash to increased female autonomy. Here, the combination of multiple empirical strategies help strengthen the causal interpretation of the findings. The embedded survey experiment directly varies gender equality at destination. That women with stronger experiences of gender inequality react more strongly to the manipulated stimulus of gender-equality at destination provides evidence that these experiences color women's migration-decision processes. Likewise, this concern is minimized by exploiting variation in gender inequality that is (i) exogenous at the individual level and (ii) corresponds to long-standing cultural and institutional factors that precede contemporary gender inequality and female migration in the causal chain.

Further, another concern could be with the measurement of experiences of gender inequality. For instance, certain types of women may be more likely to under report experiences of gender-based violence. Here, two observations can assuage this concern. First, in the first two empirical strategies, I build on prior work that has established that kinship systems and colonial legacies shape the prevalence of gender-based violence by using the Demographic and Health Surveys (DHS). These surveys are considered the gold standard for information on this type of violence because of the high quality and ethical standards of the data collected. For instance, strict protocols of enumerator gender matching are followed, and women are only asked these questions when they are alone with the enumerator. Further, the questionnaire asks women about specific actions such as pushing or pulling their hair. Such questions limit the concern that less educated or more conservative women may not identify what they are subject to as violence[10].

In my analysis of the TRANSMIT surveys, I use items capturing broader experiences of gender-based violence that ask women not only if they experienced such violence themselves but whether they've ever feared they could experience it and whether a female relative or close friend has. Arguably, these broader questions about general fears or about the number of women in their

[10] The literature on level of education and risk of intimate partner violence sometimes shows a positive relationship, but not always (e.g. see Alesina, Brioschi, and La Ferrara 2021; Capaldi et al. 2012).

network make it easier and less personal to disclose potential violence. Like in the DHS, these surveys followed strict protocols of enumerator gender matching and only asking these questions when alone with the interviewee (see Appendix A for a further discussion on Ethics). An important ethical aspect of these surveys is that women were always given the option to pick "I prefer not to answer" on these items. If I consider these women who opted out as also exposed to the violence, the main results do not change. Findings are robust to this reconceptualization of exposure. In sum, these two aspects – asking for indirect exposure and that patterns do not change if we consider women who chose not to answer– ameliorate concerns of underreporting driving my results.

This paper, like all studies, has limitations. First, the survey of immigrants used to analyze migratory behavior is only representative of the registered population of West Africans. This leaves open the possibility that the patterns found in the analysis of realized migration could be different if we took unregistered immigrants into account. The data presented here are nevertheless the best possible: it is simply not possible to build a sampling frame of the unregistered population of irregular immigrants in Germany. A second limitation is that the original survey data in the origin contexts (Senegal, Gambia, and Edo state in Nigeria) has little variation in the two dimensions studied in the first two empirical strategies – within-country variation in matrilineal kinship and within-ethnic group variation in the legal system. Therefore, even though there is individual level variation in exposure to different experiences of gender inequality of varying severity, the source of variation does not correspond to the exogenous sources of variation studied in the first two empirical strategies. It was nevertheless not possible to avert this limitation because the countries and sampling strategies of the original surveys were decided before the inception of this paper. The TRANSMIT surveys studied here are follow-up surveys to a first wave of data collection that occurred in 2019.

Future research could mitigate the limitations outlined here by creating longitudinal data that follows migrant populations from origin and transit to destination and by collecting data on experiences of gender inequality and migration intentions with a sampling strategy that explicitly aims for substantial variation in matrilineal kinship and within-ethnic variation in legal system. Further, a promising avenue for future work is to investigate potential non-linearities between the prevalence of conservative gender norms and actions aimed at stopping women from acting on their migration aspirations (e.g. see Aksoy and Szekely 2025 for the case of honor killings).

All in all, taken together, the five empirical approaches—two survey experiments, an individual-level correlational analysis, a survey experiment, and an analysis of selection patterns in a representative survey of West African immigrants in Germany—allow for triangulation across distinct sources of evidence. The consistent finding that higher gender inequality is associated with stronger female migration across all designs suggests that the observed relationship is not an artifact of model specification, omitted variables, or patterns of underreporting.

9 Conclusions

In this paper, I examine how gender inequality shapes female emigration in Africa using five complementary empirical approaches. First, I leverage variation in kinship systems and colonial legacies to trace how deep-rooted culture and institutions continue to influence female migration today. Second, I use original survey data and a conjoint experiment from Senegal, The Gambia, and southern Nigeria to document and test mechanisms linking individual experiences of gender inequality of varying severity to migration aspirations and plans. Finally, I used a representative survey of West African immigrants in Germany to move beyond intentions and examine realized migratory behavior.

Across all analyses, results point in a consistent direction: higher gender inequality is associated with stronger female aspirations and concrete plans to leave within the next year as well as higher rates of observed migratory behavior. Results from analyzing two sources of exogenous variation in gender inequality indicate that women belonging to societies with patrilineal kinship or weaker female property rights have higher migration intentions than those from matrilineal or more gender-equal legal traditions.

To investigate mechanisms, I examine the relationship between individual experiences of gender inequality and female migration intentions. I find that violent experiences— namely, gender-based violence—positively correlate with migration intentions, but economic ones (gender discrimination) do not. Results from the destination choice experiment reveal that experiences of gender inequality raise the importance of gender equality at destination but not of economic prospects. These findings are consistent with an economic model of migration in which women decide to leave when the cost of staying passes a certain threshold. That is, when the experience is so severe that the cost of staying becomes greater than the cost of leaving. In contrast, relative deprivation theory cannot explain a different response depending on whether the experience is primarily violent or economic in nature. Likewise, relative deprivation cannot explain that experiences of gender inequality do not increase the importance of economic prospects at destination.

The study makes three key contributions to existing knowledge. First, I theorize how gender inequality can be either a constraint or a catalyst of female migration and develop testable hypotheses of the different mechanisms that can drive the relationship. I start with theoretical arguments for the first possibility, that gender inequality inhibits female migration. Adapting classic economic models of migration, I propose that, in highly unequal contexts, restrictive norms, legal barriers, and patriarchal control raise the social and economic costs of migrating, thus raising the cost of leaving for women. A second theoretical approach predicts gender inequality may hinder not only capabilities to leave but the formation of migration aspirations in the first place. Here, the argument is that greater gender equality can enlarge women's horizons of possibility: it increases what they can envision as a "good life" and how they might pursue it, which can translate into stronger aspirations to migrate internationally. I then set out an alternative theoretical argument for

why gender equality can instead be a catalyst of female migration. Based on economic theories of migration, I theorize that where gender inequality is severe, the burdens of staying—limited independence, discrimination, and exposure to violence—may outweigh the perceived costs of leaving. Additionally, I also propose that such contexts can also trigger migration via relative deprivation mechanisms.

Second, this paper significantly improves analyses to date that use national-level indices and instead exploit two sources of exogenous variation in gender inequality. This approach allows me to estimate the causal effects of gender inequality on female migration and overcome important shortcomings of aggregate approaches using national level averages of gender inequality indices. Since I exploit localized variation in gender inequality, I also make a significant improvement towards disentangling the effect of gender inequality from broader economic development.

Third, I present original data that allows me to examine three stages of the migration process rarely studied in combination as well as a rich set of past experiences of gender inequality that have never been asked in a migration survey. This survey data allows me to report, for the first time, that milder experiences of gender inequality do not predict migration intentions but that experiences of gender-based violence do. Such a finding is crucial to distinguish between the cost-of-staying versus relative deprivation mechanisms. Further, the analysis of the three stages of the migration process suggests that the mismatch on the effect of gender inequality on women's migration aspirations vis-à-vis realized migration may be smaller than previously thought (cf. Ruyssen and Salomone 2018).

In sum, this paper presents the most comprehensive evidence to date on the relationship between gender inequality and female migration. Results underscore that gender inequality not only constrains women but is also a force that compels female migration. Recognizing this dual role has important implications for both theory and policy. For migration research, it calls for better theorization and careful empirical investigation of how power and gendered status hierarchies shape mobility decisions of both men and women. For policy, these results underscore the need for development and migration policies that explicitly consider gendered drivers of mobility and carefully consider how interventions aimed at creating gender equality may affect migration processes. Policies that ignore gender risk producing biased forecasts, overlooking vulnerabilities, and missing opportunities for positive social change.

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Online Appendix

A. Ethics

A.1 Collecting data on gender-based violence in Senegal, The Gambia, and Nigeria

The TRANSMIT surveys in Senegal, The Gambia, and Nigeria included items on experiences of gender-based violence (GBV), which constitute some of the most sensitive material collected in the surveys. Gathering data on this topic requires careful attention to ethical standards to protect respondents from distress, ensure that participation remains genuinely voluntary, and avoid retraumatization. Several measures were put in place at both the institutional and operational levels to address these concerns.

At the institutional level, formal ethical clearance was obtained prior to data collection from both the research institution and from national ethics bodies in the countries where the surveys were conducted. The Senegal and Gambia surveys received ethical approval from the Ethics Committee of the Berlin Social Science Center (approval number 2021/3/127). The Nigeria survey received ethical clearance from the institutional ethics committee (approval number 2023/05/198) as well as from the Nigerian Health Research Ethics Committee (NHREC approval number NHREC/01/01/2007-15/05/2023). Prior to fieldwork, the questionnaires were reviewed in consultation with the local survey partners—Senegal's Agence Nationale de Statistique et de la Démographie (ANSD) and The Gambia Bureau of Statistics (GBOS) in the case of the Senegambia surveys, and Oxford Policy Management (OPM) as well as local researchers in the case of Nigeria—to identify and revise any questions that might be perceived as delicate or likely to cause discomfort in local contexts. This feedback informed revisions to the wording of sensitive items before data collection began.

At the operational level, three measures were implemented specifically to protect respondents when the GBV questions were administered. First, gender-matching between enumerator and respondent was ensured for the sections covering violence: female respondents were interviewed by female enumerators when answering questions about experiences of GBV. This was done to reduce the likelihood that respondents would feel uncomfortable disclosing sensitive experiences to a male interviewer. Second, interviewers were instructed to ensure that the respondent was alone during the administration of the GBV items, so that no other household member—including a spouse or male relative—could overhear the respondent's answers. This measure was considered particularly important given that in some cases the perpetrator of violence may be a member of the same household. Third, for each item related to experiences of GBV, respondents were given the explicit option to answer 'Prefer not to answer.' This ensured that participation in this section of the survey remained genuinely voluntary at the item level, and that respondents who felt uncomfortable disclosing information about violence could opt out without having to withdraw from the survey entirely. These three measures—gender-matching, privacy, and the option to decline—were applied consistently across all three country surveys.

A.2 Obtaining personal addresses from BAMF-FDZ for the representative survey of West African immigrants in Germany

The representative survey of West African immigrants in Germany required access to personal addresses to construct a probability sampling frame. Because no existing publicly available dataset contains the contact details of West African nationals residing in Germany, the survey

relied on a cooperation with the Research Data Centre (Forschungsdatenzentrum, FDZ) of the German Federal Office for Migration and Refugees (Bundesamt für Migration und Flüchtlinge, BAMF). The BAMF-FDZ provided a random draw of personal addresses from the Central Register of Foreign Nationals (Ausländerzentralregister, AZR), which is the official national register of all foreign nationals residing in Germany.

Access to personal data held in the AZR is governed by strict data protection regulations under German and European law. The cooperation with BAMF-FDZ was conducted in accordance with the procedures outlined in BAMF-Forschungsdatenzentrum (2021), which governs the use of person-level data from the AZR for research purposes. The data requested from the AZR were limited to the information strictly necessary to conduct the survey: the physical postal address, nationality, residence status, gender, and date of birth of individuals in the target population. No further personal identifiers—such as names, national identification numbers, or social security numbers—were included in the data provided to the research team.

Once the survey was administered, all data potentially identifying respondents were removed or de-identified. The survey dataset does not contain respondents' names or residential addresses. The names and physical addresses of any facilities used by respondents were likewise excluded. Invitation letters were sent directly by post to the addresses drawn from the AZR, and no telephone numbers or email addresses were available or used at any stage of the process. Respondents were contacted exclusively via postal mail, and participation in the survey was entirely voluntary. These measures ensured that the study complied with the ethical and legal requirements governing the use of administrative data for research in Germany while enabling the construction of a representative sampling frame for a population that is otherwise very difficult to reach.

B. Further information on the TRANSMIT surveys

B.1 Details about sampling

Nigeria

The TRANSMIT survey in Nigeria is representative of Edo State and was conducted in partnership with Oxford Policy Management (OPM). The second wave of data collection took place in July 2023. Because the latest official census in Nigeria had been conducted in 2006, the sampling relied on raster population data provided by Facebook in collaboration with the Center for International Earth Science Information Network (CIESIN). Interview locations were determined using a multi-stage clustered random sampling method implemented with GIS software. The survey area in Edo State was divided into 125 clusters, each measuring 5 by 5 kilometres, identified by State Identification Numbers. The number of interviews per cluster ranged from 11 to 15.

A two-stage simple random sampling procedure was employed. In the first stage, 125 clusters were randomly selected with probabilities proportional to population size, with replacement. In the second stage, within each selected cluster, a corresponding smaller cluster of 500 by 500 metres was randomly chosen without replacement, again using probabilities proportional to population size. Within each of these smaller clusters, 12 individuals were recruited using a random walk method combined with the random selection of household members. The sampling interval varied by settlement type: in urban areas (more than 200 households), the interval was 5 to 10 households; in semi-urban areas (50 to 200 households), it was 3 to 5; and in rural areas

(fewer than 50 households), it was 2 to 3. All survey participants were aged 15 and above. A total of 1,532 interviews were successfully completed, of which 318 were with respondents from the first wave and 1,214 were replacement interviews. Interviews were conducted face-to-face using computer-assisted personal interviewing (CAPI) in English, Hausa, or Nigerian Pidgin.

Senegal

The TRANSMIT survey in Senegal was conducted in partnership with the Agence Nationale de Statistique et de la Démographie (ANSD) and is representative of four regions: Dakar and the three Casamance regions of Ziguinchor, Kolda, and Sédhiou. It is not representative of Senegal as a whole. The second wave of data collection took place between November 2021 and January 2022. The primary sampling units were census districts (districts de dénombrement, DR), a classification established during the 2013 General Population, Housing, Agriculture, and Livestock Census (RGPHAE). Of the 17,165 census districts nationwide, 366 were covered by the survey: 84 in Dakar and 282 in the Casamance region. Census districts were selected using a systematic method with probabilities proportional to the number of households in each district, designed to reduce sampling error by accounting for variation in district size. Within each selected district, a random sample of 12 households was drawn. A total of 4,037 households were surveyed: 1,629 in Ziguinchor, 797 in Kolda, 614 in Sédhiou, and 997 in Dakar. The survey focused on individuals aged 15 to 35. Interviews were conducted face-to-face using CAPI in French or, where necessary, in a local language (Wolof, Pulaar, Mandinka, or Diola).

The Gambia

The TRANSMIT survey in The Gambia was conducted in partnership with The Gambia Bureau of Statistics (GBOS) and is representative of the entire national population. The second wave of data collection took place in November 2021. The sampling strategy employed a nationwide random stratified approach. The country was divided into 14 substrata, which were further subdivided into a total of 4,098 districts. From these, 164 districts were randomly selected to ensure representativeness across the country. To enhance the precision of the estimates for the target age cohort, the selection was weighted according to the relative population shares of individuals aged 10 to 30 as recorded in the 2013 national census. A total of 1,807 respondents were interviewed, one per household. The survey focused on individuals aged 15 to 35. Interviews were conducted face-to-face using CAPI in English or, where necessary, in a local language (Mandinka or Wolof).

Germany

The TRANSMIT survey of West African immigrants in Germany is representative of the registered population of nationals from the Economic Community of West African States (ECOWAS) residing in Germany. At the time the sampling frame was constructed (31 August 2023), the target population consisted of approximately 211,000 registered West African nationals aged 18 and above. The sampling frame was obtained through a cooperation with the Research Data Centre of the German Federal Office for Migration and Refugees (BAMF-FDZ), which provided a random draw of 10,000 addresses from the Central Register of Foreign Nationals (AZR). The gross sample was stratified by residence status: 7,600 addresses were drawn from individuals holding a residence permit (permanent or temporary), and 2,400 from individuals with a temporary suspension of deportation (Duldung), the latter group being oversampled to compensate for its presumed lower response rate. A third category—individuals in the process of applying for asylum—could not be included due to data protection restrictions that delayed the delivery of addresses beyond the fieldwork period.

Invitation letters were sent by post (the only contact method available from the AZR) in German and in either English, French, or Portuguese depending on the colonial language commonly spoken in the respondent's country of origin. The survey was administered online and was available in all four languages. Fieldwork took place between 14 November and 13 December 2023. A total of 1,020 valid interviews were completed. Comparisons between the net sample and the target population show a reasonable match on most dimensions. Individuals from Nigeria are somewhat overrepresented in the net sample (42 percent compared with 33 percent of the target population), while individuals from Ghana are underrepresented (15 percent compared with 22 percent). The age and gender distributions of the net sample are broadly consistent with the target population. Importantly, the survey captures only registered West African nationals; reliable data on the number of unregistered migrants do not exist, and an attempt to reach this population via snowball sampling yielded only 35 interviews, which were not included in the analyses presented in this paper.

B.2 Representativeness of the survey of immigrants in Germany

In this section, I compare the target population (foreign nationals aged 18 or older, residing in Germany, who hold citizenship in one of the 15 ECOWAS countries) with the gross and net samples. Generally, the net sample broadly matches observable characteristics of the target population. Survey respondents generally reflect the distribution of the target population by gender, country of origin, residence status and age. There are, however, deviations between the target population and the gross sample received from BAMF-FDZ (which translated into deviations in the net sample): an overrepresentation of Nigerians and younger respondents as well as an under sampling of Ghanaians.

The description of the target population is based on summary statistics provided by BAMF-FDZ taken from the Central Registry of Foreigners (AZR) as of August 31, 2023, when the sampling frame was compiled. The gross sample is the 10,000 addresses randomly drawn from that frame that we contacted and invited to complete the online survey. The net sample is the 1,020 valid completed interviews. Table B1 shows the distribution of countries of origin between population, gross and net samples. Most countries only vary slightly when comparing the shares between population and net sample. Individuals from Nigeria are overrepresented in the net sample, with an increase of 10 percentage points in the net sample from their share in the target population, while individuals from Ghana are underrepresented: they are 21.91% of the target population but are only 14.90% of the net sample.

With respect to residence permits, we worked with BAMF-FDZ to build a sampling frame stratified by three categories: (1) persons with a residence permit (permanent or temporary), (2) persons with temporary suspension of deportation (*Duldung*), and (3) persons in the process of applying for asylum (with *Aufenthaltsgestattung* or *Ankunftsnachweise*). The third category was ultimately not sampled because obtaining the addresses of this group of people is subject to special data protection restrictions that delayed their delivery. Due to restrictions on spending our survey budget within the calendar year 2023, the addresses from this group did not arrive on time and thus could not be included in the survey fieldwork. Overall, comparisons shown on Table B2 show a reasonable match between the prevalence of categories (1) and (2) in the target population and our net sample, with an oversampling of individuals with *Duldung* to make up for the lack of respondents from the third category. Importantly, Table B2 also shows that people in the process of applying for asylum

(which we could not include in our survey) only account for a small share of the total target population.
Tables B3 and B4 show comparisons for age categories and gender, respectively. Our net sample generally matches the distribution of age in the target population, even though younger individuals (25-34) are oversampled and older individuals (45-64) are under sampled. When looking at gender, our final net sample seems to reflect the gender composition of the target population.

Table B1. Comparisons of total target population (citizens of ECOWAS countries over 18), gross sample and net sample by country of origin. Note: Deviations from 100% are due to rounding issues.

	Total target population		Gross sample		Net sample	
Citizenship	Absolute	Percentage	Absolute	Percentage	Absolute	Percentage
Benin	1,983	1.79%	149	1.49%	15	1.47%
Burkina Faso	1,469	1.33%	119	1.19%	12	1.18%
Cabo Verde	197	0.18%	6	0.06%	2	0.20%
Côte d'Ivoire	4,673	4.22%	475	4.75%	47	4.61%
Gambia	11,551	10.42%	1,359	13.59%	100	9.80%
Ghana	24,274	21.91%	1,449	14.49%	152	14.90%
Guinea	12,211	11.02%	1,426	14.26%	110	10.78%
Guinea Bissau	702	0.63%	64	0.64%	3	0.29%
Liberia	907	0.82%	69	0.69%	8	0.78%
Mali	1,935	1.75%	231	2.31%	17	1.67%
Niger	779	0.70%	52	0.52%	7	0.69%
Nigeria	36,097	32.58%	3,716	37.16%	432	42.35%
Senegal	3,111	2.81%	188	1.88%	25	2.45%
Sierra Leone	2,617	2.36%	266	2.66%	23	2.25%
Togo	8,302	7.49%	431	4.31%	67	6.57%
Total	110,808	100%	10,000	100%	1,020	100%

Table B2. Comparisons of total target population (citizens of ECOWAS countries over 18), gross sample and net sample by residence status. Note: Deviations from 100% are due to rounding issues.

	Total target population		Gross sample		Net sample	
Residence Status	Absolute	Percentage	Absolute	Percentage	Absolute	Percentage
Persons with temporary or permanent residence permit	84,360	76.13%	7,600	76%	847	83.04%
Persons with temporary suspension of deportation ("Duldung")	20,029	18.08%	2,400	24%	173	16.96%
People applying for asylum (not sampled)	6,419	5.79%	NA	NA	NA	NA
Total	110,808	100%	10,000	100%	1,020	100%

Table B3. Comparisons of total target population (citizens of ECOWAS countries over 18), gross sample and net sample by age group. Note: Deviations from 100% are due to rounding issues.

	Total target population		Gross sample		Net sample	
Age groups	Absolute	Percentage	Absolute	Percentage	Absolute	Percentage
18 - 24	13,436	12.13%	1,390	13.90%	143	14.02%
25 - 34	38,856	35.07%	4,382	43.82%	496	48.63%
35 - 44	31,473	28.40%	2,949	29.49%	289	28.33%
45 - 54	16,277	14.69%	945	9.45%	71	6.96%
55 - 64	8,284	7.48%	276	2.76%	18	1.76%
65 and older	2,482	2.24%	58	0.58%	3	0.29%
Total	110,808	100%	10,000	100%	1,020	100%

Table B4. Comparisons of total target population (citizens of ECOWAS countries over 18), gross sample and net sample by gender. Note: Deviations from 100% are due to rounding issues.

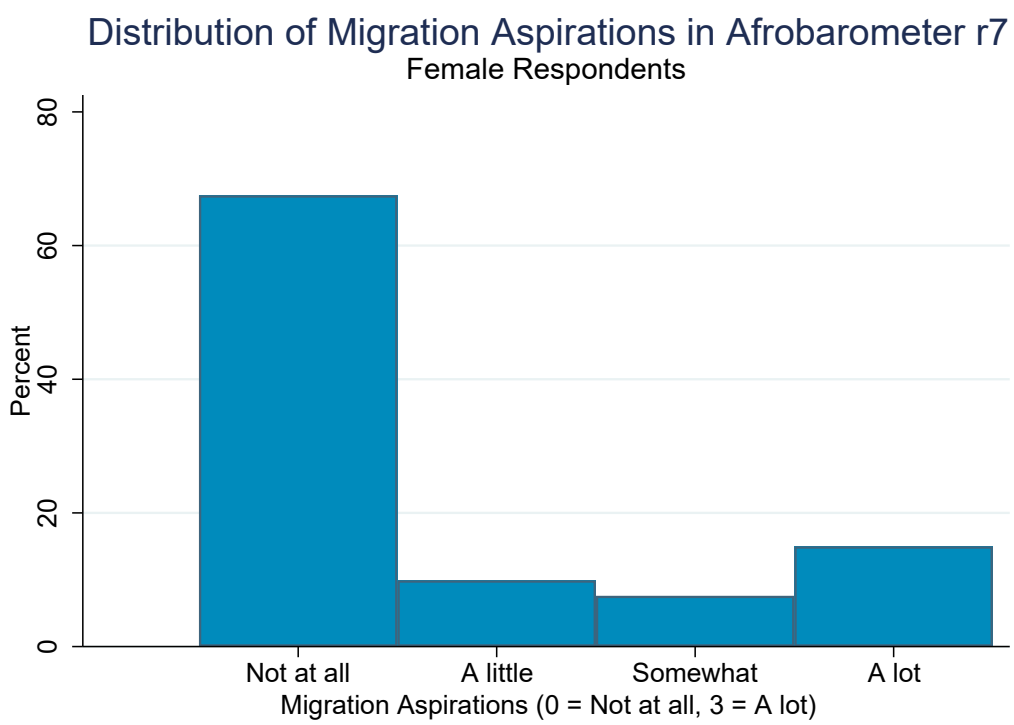
	Total target population		Gross sample		Net sample	
Gender	Absolute	Percentage	Absolute	Percentage	Absolute	Percentage
Male	69,700	62.90%	6,702	67.02%	702	68.82%
Female	41,034	37.03%	3,292	32.92%	317	31.08%
Unknown	74	0.07%	6	0.06	1	0.10%
Total	110,808	100%	10,000	100%	1,020	100%

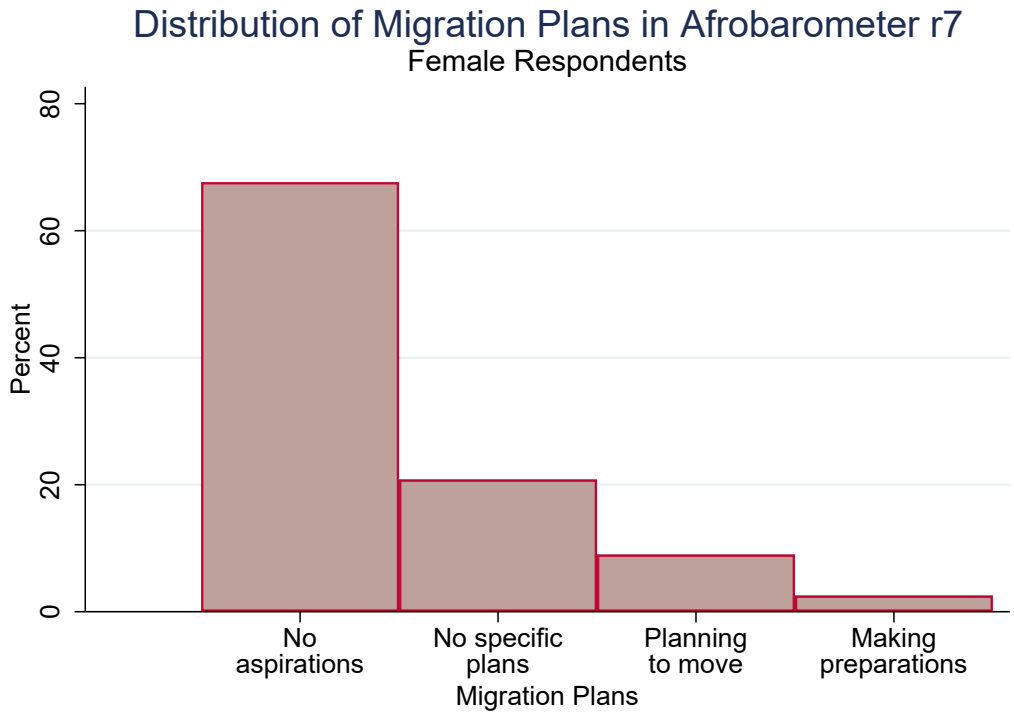
C. Further results

C.1 Afrobarometer data

Table C1: Summary Statistics - Afrobarometer Sample

	mean	sd	min	max
Migration aspirations (0-3)	0.701	1.123	0	3
Migration aspirations (binary)	0.325	0.468	0	1
Migration plans (0-3)	0.464	0.762	0	3
Age	35.795	14.205	18	103
Urban residence	0.433	0.496	0	1
Education level	3.195	2.237	-1	9
Employed	0.283	0.451	0	1
Religion	290.769	1603.131	NA	NA
Matrilineal descent	0.136	0.343	0	1
Malaria suitability	14.992	9.581	0	35
Tsetse fly suitability	0.157	0.965	-3	1
Precolonial political complexity	5.779	2.219	0	8
Precolonial subsistence economy	2.495	1.172	0	5
Common law system	0.529	0.499	0	1
Living conditions	2.769	1.298	1	9
Climate zone (Köppen-Geiger)	6.036	4.160	1	16
SPEI precipitation index (10-yr avg)	-0.292	0.443	-2	1
Heat wave magnitude (10-yr avg)	1.187	1.367	0	13
Country	17.808	9.614	1	34


Distribution of Migration Aspirations in Afrobarometer r7
Female Respondents
Percent
0
20
40
60
80
Not at all
A little
Somewhat
A lot
Migration Aspirations (0 = Not at all, 3 = A lot)


Distribution of Migration Plans in Afrobarometer r7
Female Respondents
Percent
0
20
40
60
80
No aspirations
No specific plans
Planning to move
Making preparations
Migration Plans

C.2 TRANSMIT data

Table C2.1 Summary Statistics - TRANSMIT Origin surveys (Senegal, the Gambia, Nigeria)

	mean	sd	min	max
Migration aspirations (abroad)	2.576	1.695	0	4
Migration plans	0.086	0.280	0	1
Gender violence index	0.482	0.852	0	3
Experienced gender violence	0.134	0.340	0	1
Feared gender violence	0.151	0.358	0	1
Relative/friend experienced GBV	0.202	0.401	0	1
Perceived gender discrimination	0.129	0.429	0	3
Age	27.469	9.071	15	79
Education level	0.113	0.317	0	1
Single	0.376	0.485	0	1
Religion	0.712	0.466	0	2
Precinct	265.961	136.660	1	428
Enumerator	47.829	33.731	1	114
Country	1.822	0.795	1	3

Table. C2.2 Individual-level relationship between gender inequality experiences and migration aspirations (Figure 3 in table format)

	(1)	(2)	(3)	(4)	(5)
VARIABLES	Migration aspirations (1 - 5)				
Gender based violence index	0.086**				
	(0.039)				
Personally experienced GBV		0.185**			
		(0.088)			
Relative or friend experienced GBV			0.173**		
			(0.081)		
Feared GBV				0.109	
				(0.088)	
Experienced gender discrimination					0.074
					(0.069)
Observations	3,047	3,081	3,185	3,075	3,186
Estimation Method	OLS	OLS	OLS	OLS	OLS
R-squared	0.413	0.411	0.409	0.411	0.409
Individual and HH controls	Yes	Yes	Yes	Yes	Yes
Enumerator FE	Yes	Yes	Yes	Yes	Yes
Precinct FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table. C2.3 Individual-level relationship between gender inequality experiences and migration plans (Figure 3 in table format)

	(1)	(2)	(3)	(4)	(5)
VARIABLES	Plans to leave in the next year (0 - 1)				
Gender based violence index	0.014**				
	(0.006)				
Personally experienced GBV		0.029**			
		(0.015)			
Relative or friend experienced GBV			0.027*		
			(0.014)		
Feared GBV				0.009	
				(0.014)	
Experienced gender discrimination					0.016
					(0.011)
Observations	3,047	3,081	3,185	3,075	3,186
Estimation Method	OLS	OLS	OLS	OLS	OLS
R-squared	0.376	0.371	0.364	0.374	0.364
Individual and HH controls	Yes	Yes	Yes	Yes	Yes
Enumerator FE	Yes	Yes	Yes	Yes	Yes
Precinct FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table C2.4 Interaction between conjoint dimensions and individual experiences of gender inequality (Figure 4 in table format)

	(1)	(2)	(3)
VARIABLES	Pick country A (0 - 1)		
Can make twice the money than in Country B	0.034**	0.023	0.037**
	(0.016)	(0.020)	(0.017)
GBV experience (index >0)		-0.084***	
		(0.032)	
Can make twice the money x GBV experience		0.029	
		(0.035)	
More gender equal than Country B	0.130***	0.076***	0.120***
	(0.016)	(0.020)	(0.017)
More gender equal than Country B x GBV experience		0.166***	
		(0.035)	
Gender discrimination experience			-0.042

			(0.049)
Can make twice the money than in Country B x Gender discrimination experience			-0.032
			(0.055)
More gender equal than Country B x Gender discrimination experience			0.098*
			(0.056)
Observations	3,169	3,169	3,169
Estimation Method	OLS	OLS	OLS
R-squared	0.392	0.397	0.392
Individual and HH controls	Yes	Yes	Yes
Enumerator FE	Yes	Yes	Yes
Precinct FE	Yes	Yes	Yes
Country FE	Yes	Yes	Yes

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

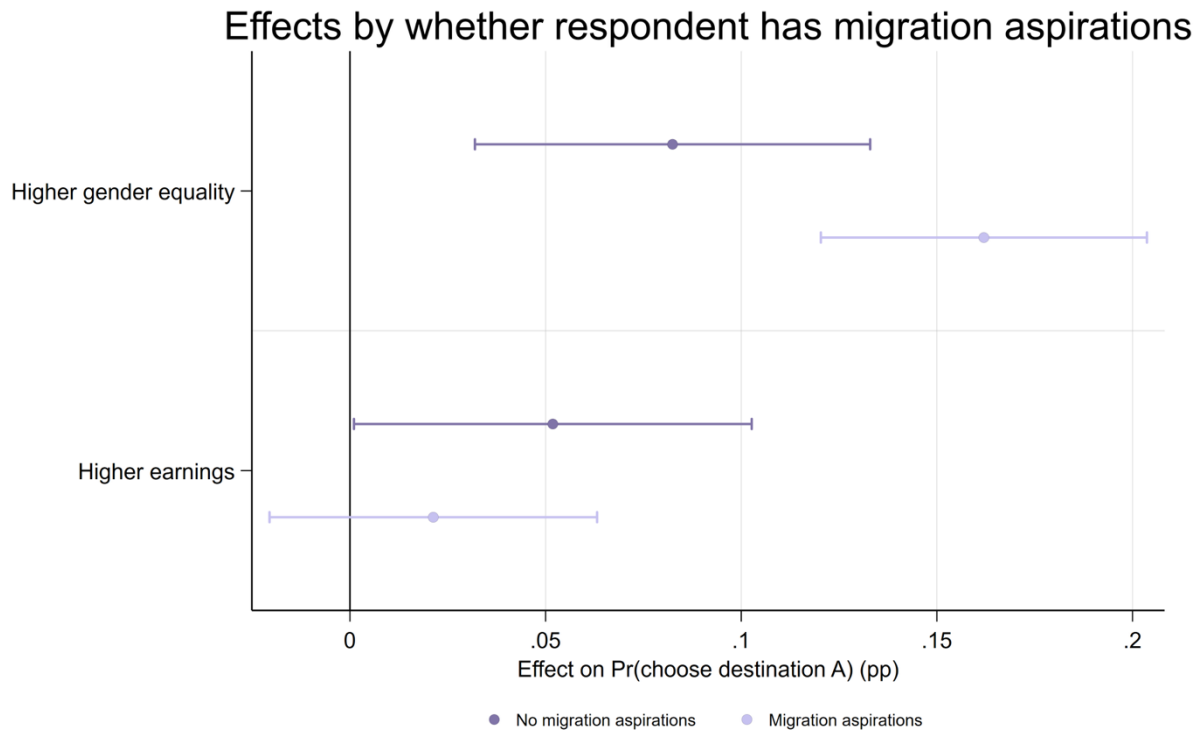



Figure C2.1