The Impact of Seasonal Migration on Beliefs and Attitudes with Respect to Gender and Social Norms

Ahmed Mushfiq Mobarak, Maira Emy Reimão, and Ashish Shenoy*

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Abstract

In rural areas in developing countries, the period between planting and harvest is generally characterized by low wages, few employment opportunities, and, consequently, skipped meals and hunger among the rural poor. Temporary migration in search of labor opportunities is a common coping strategy in this context, and, every year, about one-third of poor rural households in Northern Bangladesh send a migrant to other parts of the country for seasonal work. In this study, we investigate whether this pattern of seasonal migration affects beliefs and behaviors with respect to social norms in places of origin. We base our analysis on two rounds of a randomized control trial (RCT) offering migration subsidies to over 5,000 households in rural Bangladesh, and inducing an increase in migration of 25-40 percentage points among the treated. Taking this migration, which tends to last 8-10 weeks, as a treatment, we find that decision-making responsibilities shift towards women during the seasonal migration period. We also observe a change in some beliefs with respect to gender and inequality, which may be due to the personal experience of migrating. Households offered a migration incentive are more likely to recognize that women are capable of managing a household on their own; see the reduction of inequality as a government responsibility; and reject vote-buying. Nevertheless, the greater decision-making role of women during male migration periods and the shift in some beliefs do not translate into a change in behavior once migrants return. Altogether, these results indicate that norms are deeply entrenched in this setting and impose high costs on households that deviate from them, though they do allow for the common pattern of male migration.

Keywords: migration, gender, social norms, Bangladesh
JEL codes: O15, J16, D91

* Ahmed Mushfiq Mobarak, Yale University; Maira Emy Reimão, Evidence Action and Yale University; Ashish Shenoy, University of California – Davis. Contact: maira.reimao@yale.edu; ahmed.mobarak@yale.edu. We thank Innovations for Poverty Action – Bangladesh, RDRS, and Evidence Action for field and implementation support and GiveWell for financial support.

Introduction

During the agricultural lean season in northern Bangladesh, as many as one-third of poor households send migrants elsewhere in the country for short-term labor opportunities. In this pattern of seasonal migration, men – often heads of household – are away from their families for 2-3 months, living and working in urban areas or other rural areas. A randomized control trial (RCT) implemented in 2008-2011 showed that supporting this temporary migration by offering a small loan or grant to poor households (U$8.50; sufficient to cover a round-trip bus ticket and a few days of food and lodging) further raised migration rates, and lead to increases in household expenditures, consumption, and caloric intake (Bryan et al. 2014). Given these large positive effects, a modified version of this intervention was repeated in 2014, finding that migration rates almost doubled among households offered the subsidy (Akram et al. 2017). An analysis of welfare changes due to migration also shows that, while these gains are tempered by the disutility of migration and a temporary split of the household, the subsidies successfully target the neediest households and improve their wellbeing during the lean season, a period otherwise characterized by hunger and skipped meals among poor families (Lagakos et al. 2017).

Considering the prevalence of seasonal migration as a coping strategy in the region as well as the substantial response to a migration subsidy offer, a natural follow-up question is whether the temporary migration of predominantly men from rural areas changes gender and social norms in areas of origin. That is, when men leave their social context and are exposed to different ideas at their destinations, and women are temporarily left behind and experience a relative expansion of their decision-making spheres, does this lead to any changes in beliefs, attitudes, or gender roles at the end of the migration episode? In this paper, we use data from two RCT rounds implemented in Bangladesh to measure the effect of migration on beliefs regarding gender as well as other social issues, such as inequality and democracy; and on attitudes and behaviors.

Broadly, we find that migration changes individual beliefs with respect to gender and equality, but entrenched norms prevent this shift from transforming behaviors. First, though the vast majority of respondents report that they know a woman who can run a household on her own, those in families that were offered a migration loan are nevertheless 2.4 percentage points more likely to say they do. This latter group is also 6 percentage points more likely to believe that governments should reduce income inequalities and 8 percentage points less likely to support vote-buying by political parties than are those in the control group. These differences in beliefs are all significant, even once we adjust for multiple hypothesis testing, and point to shifts that occur through migration as a personal experience. For instance, the first shift may result from a man migrating and returning to find that his wife or other female member

successfully managed the household during his absence. He may also be more likely to believe in the responsibility of the government in reducing inequality if he personally observes large differences in income through is migration experience. Finally, the third observed change may be a reflection of individual agency – one may be less likely to favor hand-outs from political parties in exchange for votes after going through the experience of leaving one's village and securing a job elsewhere.

Nevertheless, these changes do not translate into an impact on behaviors. In particular, while migration may lead men to recognize a woman's capacity to run the household, and women may take on additional responsibilities during the migration period, decision-making roles revert to the social norm once migrants return. As such, we find no difference in women's participation in household decisions – including those regarding their own physical mobility outside the house – between treated and untreated households once migrants have returned. This points to the power of cultural norms in this setting, which allow for different behaviors during male absences but strongly penalize households under normal circumstances.

Likewise, we do not find an effect on engagement with the local government and access to services, despite the shift in political beliefs among treated households. This contrast points to the constraints imposed by social norms on civic participation and/or by the state's capacity to meet increased demands or expectations.

The next section of this paper discusses the potential mechanisms through which beliefs and social norms may change in response to migration. The third section details the design of the intervention and the observed migration pattern, as well as the data used in our analysis. The empirical model is presented in the fourth section, while the fifth includes our results. The final section offers a conclusion.

Mechanisms and Literature

While the number of studies covering migration and cultural beliefs and norms – including those relating to gender – is extensive, ones that focus on the *temporary* migration of *men*, with the remainder of the family staying behind, are few and far between. And with respect to domestic migration within South Asia, research exploring effects on gender norms has tended to concentrate on rural women's participation in manufacturing jobs available in urban areas or industrial zones (e.g., Kabeer and Mahmud (2004), Paul-Majumder and Begum (2006), Saradamoni (1995)).

Nevertheless, the present study on the relationship between temporary migration and beliefs and social norms draws on other strands of literature. First is the research on culture and reference groups, which argues that individual decisions are shaped by one's own preferences as well as perceptions of social norms. Second, when considering the effect of migration on *gender* norms in particular, we call on the literature on intra-household bargaining, where outcomes are the result of a bargaining process between spouses, and its application for migrant couples.

Beliefs and Social Norms

The interest in social norms has been increasing within development economics, as researchers look to behavioral economics for explanations on entrenched patterns that largely do not budge despite economic incentives (e.g., Kevane and Wydick (2001)). One such reasoning is that individual decisions do not depend only on one's individual beliefs, preferences, and constraints, but also on the socially accepted norm, which can impose costs to individual utility as well. In exploring female entrepreneurship and use of credit, for example, Fletschner and Carter (2008) argue that a women's credit use depends not only on her preferences, but also on the socially accepted norm for female entrepreneurship (or, more accurately, her *perception* of the existing norm) and use of credit. This depiction of women's decision-making, however, implicitly assumes that they are free to make decisions regarding business ownership and growth, even if they face costs from steering too far away from the social norm. In more traditional contexts, however, not only might this level of freedom not exist, but social norms may shape women's preferences into proxies of male ones. A recent experimental study on entrepreneurship in India, for example, found that women tend to internalize patriarchal priorities to such an extent that stated preferences for women's businesses inside the home versus outside actually do not vary between men and women (Said et al., 2017).

Rural Bangladesh falls into a similar context, where decisions are more likely to be driven by male heads of household. To account for the role of social norms in their decision making, consider the following utility function for the male household head:

$$U(C_h) - a(K(B, \cdots) - K_e)^2,$$

where C_h is a vector of consumption levels for each household member, such that the male head of household may be a "benevolent dictator". K represents his household's actions in various realms, such as gender roles, division of decision-making, and even political attitudes, and is a function of B, the decision-maker's beliefs with respect to these realms. K_e is his perceived social norm regarding that same outcome, and is composed of two measurements: a contextual norm, K_c, which encompasses religious

norms as well as norms at the country level; and a local norm, K_l, which refers to his reference group, whatever that may be. That is, $K_e = K_c + \theta K_l$, where $0 \leq \theta \leq 1$ indicates the relative weight given to each component of the social norm. Thus, as long as $a > 0$, he effectively experiences a penalty for deviating his actions from what he understands to be the social norm. Note that while we assume $\frac{dK}{dB} \geq 0$, this first derivative will be decreasing in a. That is, as the cost of deviating from the social norm is higher, individuals' actions respond more weakly (if at all) to any change in their own beliefs.

Migration may act by changing B, an individual's belief, and, in turn, possibly affect his actions K. It may also change K_l, the local norm, by changing the migrant's reference group. That is, whereas before migration, the male household head may compare his actions only to those of other village members, with migration he may add urban residents to his comparison group as well. Then, if, for example, in urban areas women have more freedom and decision-making power, an expansion of the migrant's reference group to include urban residents shifts K_l to $K_l{}'$, with $K_l' > K_l$. The inclusion of urban residents in the migrant's reference group move the migrant's actions towards supporting women's freedom. Of course, a necessary condition for this effect is a difference between the social norms of the migrant's original reference group and the group after migration. In Bangladesh, rural areas are more traditional than urban, though this distinction is less clear-cut among poor urban residents, particularly in communities with large concentrations of migrants from rural areas.

Another shift in action as a result of migration may occur even when rural dwellers already include urban residents in their reference group at baseline. If social norms are not perfectly observed in the absence of migration, rural residents may be misinformed until they migrate. In this sense, prior to migration, the male head of household employs not K_e but $\widetilde{K_e}$, an imperfect measure of K_e, into his decision making.[1] Then, if $K_e > \widetilde{K_e}$ and temporarily living in an urban area improves one's knowledge of K_e, the migration of the head of household will result in a move closer to the social norm.

Intra-household bargaining

Intra-household bargaining may also come into play with temporary male out-migration for labor opportunities, as this pattern enables men to increase their earnings while also leaving women to take

[1] Of course, it may be that K_e, the "true" social norm, which accounts for national and religious expectations as well as a complexity of local norms, is never fully observed. Nevertheless, to the extent that traveling and being exposed to more facets of it brings one closer to understanding the "true" social norm, this trend holds (and the shift may be more accurately defined as one from $\widetilde{K_e}$ to $\widehat{K_e}$, where $\left|K_e - \widetilde{K_e}\right| > \left|K_e - \widehat{K_e}\right|$).

actions that they normally might not in the presence of the migrant. That is, migration may lead to changes in the division of labor and/or decision-making roles within the household as women left to manage the household in the absence of the male household head may end up "proving" their abilities to their families, and retain some of their (originally) temporary roles once their spouse returns. On the other hand, to the extent that migration increases the male head's earnings in absolute and relative terms to their wives, this may weaken women's intra-household bargaining position.

In Mexico, male migration appears to increase female bargaining power *during* the migration period, but the balance shifts back once migrants return (Antman, 2015). This pattern may be due to a drop in male financial contribution to the household just before and during migration, followed by a large increase upon return. An alternative explanation for the shift during and after migration is that migrants' spouses can withhold information while migrants are away (swaying decisions towards their preferences), but upon return, men make decisions to compensate for expenditures that were not in line with their preferences. The migration of tribal men in eastern India, in contrast, does not appear to improve women's bargaining power during or after the migration spell. Rather, as migrants acquire a "worldly" status through migration itself, their wives experience greater threats of divorce and abandonment once migration takes place (Menon 1995).

These two effects of male migration on women and behaviors across gender lines are not surprising when viewed through the lens of a small but growing strand of literature that argues that intra-household bargaining outcomes are largely shaped by social context. Importantly, it is the latter that determines, for example, whether a given realm within the household is even open for negotiation or not, so that characteristics from within the household do not alone determine decision-making roles or outcomes (Kabeer 1997; Mabsout and van Staveren 2010). A comparison of time allocation decisions between two ethnic groups in Burkina Faso, for example, reveals that women's activities and roles are primarily determined by social norms rather than intra-household decisions, and bargaining models fail to explain differences in gender roles between ethnic groups when their members are otherwise similar (Kevane and Wydick, 2001). In fact, in some contexts, changes that are generally associated with improved female bargaining power, such as women's employment and increased assets, have been found to not affect or even worsen women's participation in decision-making and time use, as spouses compensate for deviations from social norms by reinforcing traditional roles (Mabsout and van Staveren 2010).

With respect to the growing employment opportunities offered to women by the garment industry in Bangladesh, Kabeer (1997) presents a complex effect on (and measure of) bargaining power, as the

increased earnings potential for women may improve their exit option (in case of marriage dissolution) and even replace the demand for dowry in some instances, while also worsening working women's social status or not changing women's control over how money is spent within the household. Factory work has allowed women to delay marriage and avoid remarriage on one hand, while on the other married women may go through great lengths to ensure that their earnings do not disrupt the power structure within the household or pose a threat to male authority. In this sense, the effects of this new source of income for women does not fit neatly within intra-household bargaining models or in a "benevolent dictator" model in which the male head of household decides alone; that women work in garment factories often with their spouses' disapproval already demonstrates a deviation from the later. Here, we study the effects of male migration within this same country, and observe a related distinction between beliefs and outcomes, as migration may change how one perceives certain social concepts without yet (or meaningfully) changing behaviors or decisions.

RCT Interventions Relating to Cultural Practices

Our study also relates to research on interventions designed to influence social norms and women's empowerment levels, particularly within the context of an RCT. Results are generally mixed, and reveal that while behaviors can certainly respond to treatments, local empowerment and awareness-raising programs seldom transform norms.

In Bangladesh in particular, an RCT designed to test two potential treatments for decreasing teen marriages found no effect from an intensive "empowerment program" through which girls aged 15-17 met five or six times a week for six months to receive educational support and training on topics including life skills and reproductive health knowledge (Buchmann et al., 2017). In contrast, another arm of the RCT, which provided cooking oil under the single conditionality that the girl be unmarried, reported significant drops in teen marriage and births and an increase in continued schooling. The authors of this study point to the lack of agency of girls within this context as a potential explanation for the null effect from the empowerment program – if girls are not included in the decision-making with respect to their marriage timing, providing them with the tools for making or preparing for that decision *if they were to be included* has no effect. The in-kind transfer, in contrast, works within the traditional cultural norm to influence behaviors, factoring into the thought process of others in the household who do make or participate in the decision. This is echoed by results from an RCT in India that implemented class discussions on gender equity every 3 weeks for over 2 years among secondary school students (Dhar et al. 2018). The study finds that while this intensive treatment changed *attitudes* in the direction of gender

equity for both boys and girls, reported *behaviors* changed more dramatically for boys than for girls. While boys may choose to do more chores in the household or support women's education, girls may not be able to challenge gender norms by choosing to do fewer chores or purse further education as these are dictated by other decision-makers.

Documenting the distinction between beliefs and actions, Beaman et al. (2009) finds that the random assignment of gender quotas for council seats and council leader positions in local politics in India over two election cycles (10 years) increased the share of men who believed in female leaders' effectiveness and, in practical terms, the share of women actually elected to these local positions even once the quotas were removed. Exposure to female leaders, however, did not change men's *preferences* for female leaders, and they continued to hold traditional beliefs on gender roles and attributes. In this sense, men's fundamental beliefs on gender did not change, but their views regarding the competence of female leaders did; and while the former might influence voting decisions and, consequently, outcomes, the latter does as well.

In contrast, two RCTs that engaged at the broader community level find no change in beliefs but a change in the *perception* of social norms – the types of behavior that should happen or normally do happen within the community. Green et al. (2018) conducted an RCT that included short videos on the prevalence of violence against women (VAW), embedding these in popular community movie screenings, and found a decrease in VAW six months after the screening. The videos were designed to encourage the reporting of VAW to authorities, and the RCT results reveal that an increase in respondents' willingness report VAW as witnesses after the screening came not from a change in beliefs on the morality of VAW, but a shift in their perception of the social norm on the acceptability of reporting. That is, viewers became less likely to fear that they would be labeled as a gossip or a false accuser if they reported instances of VAW, and men became more likely to believe that the community would take action in response to an accusation. Separately, Paluck (2009) implemented an RCT using a radio soap opera touching on intergroup prejudice, violence, and trauma in Rwanda, with 4 episodes a month for an entire year. Here, the intervention did not lead to a change in *beliefs* relating to the causes of violence, the duty of bystanders, or intergroup marriage, but it did transform individual's views on social norms, such as whether one *should* support inter-marriage, discuss personal trauma, or voice dissent. The fact that both of these interventions were communal, so that participants knew that others in their community were also watching/ listening, may be an important feature for changing individuals' perceptions of the social norm.

Study Design and Empirical Method

To empirically measure the effect of temporary male migration on beliefs and social norms, we employ data from a randomized control trial implemented in Northern Bangladesh over various rounds between 2008 and 2014. This intervention, tested through several iterations, provides migration subsidies to poor rural households to support the migration of its members during the agricultural lean season in search of employment opportunities elsewhere within the country. The amount of the subsidy covers the cost of a bus ticket and a few days of food for one family member, and disbursement is conditional only on migration, with no further restrictions on the travel (such as destination or number of days).

Seasonal migration is a common strategy among rural residents in Northern Bangladesh for coping with the scarcity of jobs available locally during the lean season, with one-third of poor households sending a migrant in any given lean season (Khandkher and Mahmud, 2012). Nevertheless, this intervention has been shown to be very effective in increasing migration levels and, consequently, expenditures and consumption of poor households. The initial round of the RCT, implemented in 2008-2009, saw migration rates 22 percentage points higher among households that were offered a migration loan or grant of $8.50 relative to those who were not (Bryan et al., 2014).[2] Among households that sent a migrant in response to the treatment, expenditures increased by 30-35%, and food consumption per person increased by over 500 calories per day, equivalent to a full meal at a time when households regularly skip meals. Higher migration rates among the treated group continued to be observed one and three years later as well, and more information on the design of this initial intervention round and additional effects are detailed in Bryan et al. (2014).

Given these large positive impacts on migration and consumption, a larger RCT round was implemented in 2014, to both verify the initial results and explore spillover effects within treatment villages.[3] For the latter, the treatment was assigned in two steps. First, villages were randomly selected into high-intensity, low-intensity, and control villages. Second, in high-intensity villages, 70% of poor households were randomly chosen to be offered the migration loan, while in low-intensity villages only 14% of poor households were given the same offer. No households were offered the loan in control villages.

[2] The control group in this study is technically comprised of households offered no treatment and households that were given information on labor opportunities at popular destination areas but no financial incentives. Given the lack of difference in effect on migration between the group offered cash and the group offered a loan and also between the information treatment and the control group (see Table 1), the authors subsequently collectively refer to the first two groups as "incentivized" and the latter two as "control". The same approach is taken in the present paper.

[3] A second experiment was implemented in 2011, but we do not explore the effect of that round in the present version of this paper. Details on this round can also be found in Bryan et al. 2014.

Even though in this case the migration subsidy was provided as a loan, the observed effect of the treatment on migration was at least as large as in the original study: households in high-intensity villages that were offered the subsidy were 39.8 percentage points more likely to migrate than those in control villages, and those in low-intensity villages were 24.8 percentage points more likely to migrate as well (Akram et al, 2017). The difference between these two effects, however, is statistically significant, and households in high-intensity villages who were not offered the loan were also 9.7 percentage points more likely to migrate than those in control villages. There was no significant effect on non-treated households in low-intensity villages. Altogether, these impacts indicate not only that being offered a subsidy encourages migration, but also that having more neighbors and friends within the same village who are offered the subsidy (and are thus more likely to migrate) encourages migration as well. These large positive effects on migration then increase hours worked by the household head and household income. Additional effects from this intervention – along with more details on the design – are discussed in depth in Akram et al. (2017).

Table 1 summarizes the impacts of these two interventions on migration, while Table 2 provides some descriptive information on migrants and their households. In particular, note that 94-98% of seasonal migrants are male, and the majority are heads of household. The total time spent in destination areas is substantial, averaging 8-11 weeks during the season, and just under half of migrants go to urban areas.

Table 1. Documented Effects on Migration

Panel A: Migration Subsidy Offered in 2008	Dependent Variable: HH had a migrant in 2008
Incentivized: Cash	0.178***
	(0.044)
Incentivized: Credit	0.165***
	(0.044)
Information	-0.000
	(0.044)
N	1824
Control Mean	0.360
Panel B: Migration Subsidy Offered in 2014	**Dependent Variable: HH had a migrant in 2014**
Offered Subsidy, Low-Intensity Village	0.248***
	(0.0366)
Not Offered Subsidy, Low-Intensity Village	0.0333
	(0.0388)
Offered Subsidy, High-Intensity Village	0.398***
	(0.0333)
Not Offered Subsidy, High-Intensity Village	0.0965**
	(0.0397)
N	3600
Control Mean	0.342

Note: Regression results for Panel A are taken from Bryan et al. (2014). Regression results for Panel B are taken from Akram et al. (2017). Both regressions include controls and fixed effects for the upazila (sub-district), and errors are clustered at the village level.

Table 2. Migrant Characteristics, 2008 and 2014

	All	Control	Not Incentivized	Incentivized
2008 treatment round				
Share of migrants that are male	93.93	87.91	-	95.78
Share of migrants that are heads of household	74.68	63.74	-	78.04
Average migrant age	32.44	29.73	-	33.33
Share of migrants who can read and write	35.27	45.60	-	45.60
Share of migrant HHs that send the household head	80.84	70.73	-	83.85
Share of migrant HHs that send more than one migrant	6.85	9.15	-	6.17
Migrant's average number of days away	72.15	75.21	-	71.19
Migrant's average number of migration episodes	1.74	1.63	-	1.77
2014 treatment round				
Share of migrants that are male	98.18	96.48	98.27	98.48
Share of migrants that are heads of household	83.90	73.05	83.04	86.34
Average migrant age	37.69	35.77	36.89	38.38
Share of migrant HHs that send the household head	89.54	78.48	89.98	91.48
Share of migrant HHs that send more than one migrant	6.28	7.59	7.72	5.47
Share of migrant HHs that send migrant to urban area	43.98	44.96	44.89	43.44
Migrants' average number of weeks away	8.67	8.98	9.16	8.42
Migrants' average number of migration episodes	1.46	1.39	1.45	1.47

Note: For the 2008 treatment round, control households include those who were initially assigned to the control group or and those assigned to the information only group; incentivized households include those who were offered credit or cash (see footnote 2). For the 2014 treatment round, incentivized households are those who were offered the migration subsidy; non-incentivized households are those who were not offered the subsidy but who live in villages where others were offered the subsidy; control households are those in villages where no one was offered the migration subsidy.

Using data related to the 2008 and 2014 treatment rounds, we explore the impact of offering migration subsidies – which have already been shown to increase migration rates by over 20 percentage points from a baseline of just over one-third (Bryan et al. 2014 and Akram et al. 2017) – on beliefs, attitudes, and social norms in rural Bangladesh. We also use data from a follow-up survey of the 2014 cohort, conducted in November 2016, to validate and assist in the interpretation of our results.[4]

From the first RCT, we have information on household expenditures, including on three categories that are disaggregated by sex: medical expenses, clothing, and education. The first post-intervention survey under this RCT was carried out in October/November 2008, at the height of the lean season and migration period, while the second was in May 2009, after the lean season. We use information from these two data rounds to explore the effect of the migration subsidies on any shifts in expenditures towards women and men, though we do note that these expenditure categories have some limitations for our assessment. Medical expenditures, for instance, presume a medical need, and a one-month recall period means those recorded in 2008 were incurred during a period of high migration. Thus, relatively higher expenditures for

[4] The treatment and assignment in 2008 and 2014 are distinct, though there is some overlap. The 2016 follow-up survey includes all households under the 2008 RCT and a subset from the 2014 intervention.

women may reflect sudden medical needs while their spouses were away or, perhaps, women's increased freedom to seek their own medical care. Alternatively, higher male expenditures may be driven by injuries or health issues occurring while away or higher medical costs in destination areas. The data collected in May 2009 does not suffer from nearly as much of an issue, though higher expenditures may nonetheless reflect worsening health rather than allocation due to preferences alone.

Table 3. Monthly Expenditures on Male and Female Items, 2008

Category	Taka (monthly), 2008	Taka (monthly), 2009
Medical Expenses, Women	112.83	154.78
Medical Expenses, Men	113.59	149.29
Clothing, Women	20.58	72.51
Clothing, Men	16.55	57.55
Clothing, Children	16.00	40.83
Education, Girls	5.74	22.09
Education, Boys	7.80	29.36
Total Non-Food Expenditures	937.26	1177.00
Total Expenditures	3542.80	4532.83

Note: Taka amounts are in nominal values, not adjusted for inflation. Medical expenditures include fees for medical/dental care, medicine, and lab and admit fees. Clothing expenditures encompass clothing and shoes. Education expenditures include school fees, private tutoring, lodging, and school supplies. Recall periods for medical expenses are one month, except for lab and admit fees, which have a four-month recall. Clothing and education expenses have a twelve-month recall period.

Clothing and education expenditures have a twelve-month recall period, so that, in the case of the 2008 data, they cover expenditures before and during the lean season. From the 2009 data, they cover expenditures before, during, and after the lean season as well. This spread may dilute any observed effect, although, assuming that these expenditures followed the same trend among treated and non-treated households up to the treatment, a measured impact can be ascribed to the treatment. Table 3 presents average reported expenditures in these categories, along with total non-food expenditures and total expenditures. We also consider expenditures on children's clothing, given the literature indicating that women are more likely to allocate money towards their children than are men (e.g. Thomas 1990).

In both survey rounds, medical expenses are similar between men and women, while average expenditures on women's clothing are slightly higher than expenditures on men's clothing. Households also tend to spend slightly more on the education of boys than that of girls.

Separately, the data from the 2014 intervention includes information on beliefs and social and political behaviors. Data from the gender module, in particular, relies on commonly used questions regarding decision-making roles with respect to expenditures (on oneself and one's children) and female physical mobility, but is unique in that a man as well as a woman in each household was asked this set of

questions. When studying this data, note that roles in decision-making are often taken as proxies for bargaining power, but are endogenous and result within social institutional constraints. That is, the fact that spouses decide jointly/individually on certain expenditures or time allocations, for example, are as much as an indicator of bargaining power as the result of a bargaining process itself, and is influenced by social norms as well.

Table 4 below presents the list of questions, along with the distribution of responses to questions on decision-making.[5] The first three questions (rows) relate to expenditures for oneself; the following four relate to expenditures for children in the household (if applicable); and the final four questions relate to women's freedom of movement. Note then that the male and female responses in the first three rows actually pertain to different decisions. According to both women and men, expenditure decisions are most likely to be joint decisions within the household, though men are more likely to say they decide on expenditures for their own food, healthcare, and clothing by themselves than are women. Female mobility, however, is less likely to be a joint decision, and responses are generally evenly distributed between those where decisions are made by both men and women together and where they are made by men alone. The responses are generally consistent between male and female respondents, indicating that spouses generally have the same perception of decision-making participation.

Table 4. Participation in Spheres of Decision-Making

	female response			male response		
Decision-Makers:	**women alone**	**joint**	**men alone**	**women alone**	**joint**	**men alone**
Expenditures, Self: Food	0.21	0.58	0.19	0.11	0.52	0.35
Expenditures, Self: Health Care	0.08	0.65	0.24	0.03	0.56	0.38
Expenditures, Self: Clothing	0.06	0.67	0.24	0.01	0.53	0.43
Expenditures, Children: Food	0.21	0.67	0.09	0.15	0.67	0.16
Expenditures, Children: Health Care	0.09	0.77	0.11	0.05	0.77	0.16
Expenditures, Children: Education	0.08	0.82	0.07	0.05	0.82	0.11
Expenditures, Children: Clothing	0.05	0.76	0.14	0.03	0.76	0.18
Fem Mobility: Outside Community	0.11	0.39	0.48	0.10	0.39	0.50
Fem Mobility: Bazaar	0.14	0.42	0.42	0.12	0.43	0.45
Fem Mobility: Hospital/Doctor	0.18	0.43	0.36	0.19	0.41	0.38
Fem Mobility: NGO/programs	0.10	0.51	0.37	0.10	0.49	0.40

The next set of questions (Table 5, top) refer to female labor force participation. In particular, male respondents were asked whether their wife or other women in the household are "allowed" to work for an income, and two-thirds of men responded positively. Admittedly, the wording of this question implicitly

[5] For relevance, the sample used for this table is limited to households with at least one adult male (age 18 or older). Less than 5% of households in the 2014 dataset do not match this criteria, and are dropped from this table and subsequent analysis on gender. They are nonetheless included in the rest of the analysis herein.

gives authority to members other than the women themselves for that decision. Nevertheless, consistent with this result, 47% of women report currently working.

Women were also asked about threats and violence they may have been subjected to by their husbands and/or other family members during the six months preceding the survey (Table 5, bottom).[6] A small share of women (4%) reported that their husbands either threatened them with divorce or taking another wife or acted on that threat during the previous six months. In contrast to this relatively rare occurrence, more than half of women reported being verbally abused by their spouse or other family members, and 10% reported physical abuse within the last six months.[7]

Table 5. Labor Force Participation, Threats, and Relationships

Female Labor Force Participation: (share "Yes")	
Male respondent: Are women in your HH allowed to work to earn money?	0.65
Female respondent: Are you currently working for an income?	0.47
Has your husband/other family member ever: (female respondent, share "Yes")	
Threatened You with Divorce/Other Wife	0.04
Verbally Abused You	0.57
Physically Abused You	0.11

The remaining questions were asked to the head of the household, who in the vast majority of cases is male and is usually among the migrants in the household (Table 2). Despite the gender norms and roles described above, almost all respondents reported that they know of women who are capable of running the household without their husband's assistance. Similarly, most reported knowing women who have a good understanding of politics and government. Of course, respondents will be more likely to acknowledge knowing women with these characteristics if they meet more people (e.g., migrate) or if more women in their village *visibly* exhibit these characteristics (e.g., work outside, make purchases alone, or take on government roles).

Experiences – including poverty – may also affect individual beliefs on the role of government and inequality. In this realm, we find broad progressiveness, with virtually all respondents believing that the government should help the poor with employment, and a majority also agreeing that the government has a role in reducing income inequality. On the other hand, a quarter of respondents do not object to vote-buying from the poor.

[6] This period, starting in mid-September, encompasses the lean season and harvest time.
[7] Note here that we are very aware of the literature discussing the challenge of measuring violence and abuse through self-reported data. Nonetheless, the tendency to underreport these cases is only an issue for our analysis if there is a systematic difference in this pattern between treated and untreated households. We have no reason to believe this is the case, as the survey was implemented once the migration season was over and male migrants had returned to their household.

Table 6. Gender and Social Beliefs

Household head response (% Yes or Agreeing with Statement)	
Have you met a woman who is capable of managing household affairs without help from her husband?	0.98
Have you met women who has a good understanding of politics and government?	0.88
Do you agree or disagree with the following statements:	
Government should reduce differences in income between people with high incomes and those with low incomes.	0.82
Government should help the poor by providing them a job.	1.00
Political parties should help the poor by giving them some gift in return for their vote.	0.26

Political and civic actions may also be influenced by social experiences, as documented in terms of cyclical migrants' candidate preferences across ethnic lines in India (Thachil 2017). While participation in unions and associations is very low among respondents in Northern Bangladesh, it seems that engagement at the local level (union parishad) is fairly high, with half of respondents talking to the chairman over the last 6 months and 61% going through arbitration over the last year (Table 7). In Bangladesh, the local government is also responsible for issuing personal identification documents and allocating various assistance programs, and we include the use of these services in our analysis as there may be a social aspect to this behavior as well. In particular, individuals may apply for certain documents in anticipation of their migration (or after experiencing some incident in which they needed a document while they were away), and that may encourage others to get their documents as well or even lead the union parishad to improve access to its services.

Table 7. Political and Civic Participation

Household head response (% Yes)	
Have you ever received a national ID/voter ID from your union parishad?	0.99
Have you ever received a citizenship certificate from your union parishad?	0.52
Have you ever received a birth certificate from your union parishad?	0.98
Have you ever received a trade license from your union parishad?	0.03
Have you ever received safety net support from your union parishad?	0.47
In the past year, did you receive food or money in return for work (e.g. digging canal, building roads) from your union parishad?	0.09
In the past year, did you receive assistance with a local arbitration (shalish) from your union parishad?	0.61
Have you had a conversation with the union parishad chairman in the past 6 months?	0.53
Are you a member of any labor union?	0.02
Are you a member of any farmer's association?	0.01
Is there a political party you especially like?	0.68

As described, the data used for our analysis comes from three datasets but two intervention rounds. As such, we consider the two treatment events separately in our empirical analysis. We use data from the 2008 round to measure the effect of migration on expenditures on female and male items, employing the following regression:

$$Y_{1i} = \beta_0 + \beta_1 T_{1i} + \beta_2 X_i + \varepsilon_i.$$

The treatment variable, T_{1i}, is a dummy indicating whether household i was offered a migration incentive in 2008. For the dependent variable, Y_{1i}, we first consider the ratio between expenditures on female to male items reported in 2008, for each of those areas for which we have gender-specific expenditure information (i.e., health, clothing, and education). We also use expenditures on children's clothing as the dependent variable, as well as the ratio between female-related expenditures to all household expenditures, which allows us to include households that reported zero male-assigned expenditures, and represents the share of household expenditures that were exclusively assigned to women. For these regressions, the control variables X_i are the household size at baseline and the upazila, and errors are clustered at the village level.[8]

For outcomes using the 2014 dataset, we rely on the treatment employed in 2014 and the following regression:

$$Y_{2i} = \beta_0 + \beta_1 T_{2i} + \gamma X_i + \varepsilon_i.$$

In this case, the treatment variable, T_{2i}, indicates whether the household received a migration loan in 2014, and the outcomes Y_{2i} are the various measurements of beliefs, attitudes, and norms recorded in 2015. Analysis using the 2016 follow-up survey slightly modifies this by focusing on outcomes from a later period, Y_{3i}, but regressed against the same 2014 treatment indicator T_{2i}. This final set of regressions includes controls for the sex of the respondent in 2016 and upazila of residence, and errors are again clustered at the village level.

Since our regressions collectively look at many outcomes, we adjust our p-values for multiple hypothesis testing. In practice, to control for the family-wise error rate (FWER), we classify the data into 12 mutually exclusive families covering all of the outcomes considered, and employ the stepwise procedure employed by Jones et al. (2017), as developed in Westfall and Young (1993).[9]

[8] For the regressions using the ratio between female and male expenditures, we limit the sample to households with at least one male and one female member at baseline. This covers 96% of households. For the regression using expenditures on children's clothing as the dependent variable, we limit the sample of households with school aged children (6-18) at baseline, or 53% of households.

[9] The 11 families are perceptions regarding women; political beliefs; female and male expenditures; decision-making on expenditures on self; decision-making on expenditures on children; decision-making on female mobility; female labor force participation; gender-based violence; and local civic participation; and decision-making gathered from the follow-up survey. We treat each of these categories as a family rather than lumping all outcomes into a single family because the categories different in terms of importance, placement in the theory of change, and/or relevance to the existing literature and policy. The code used here to adjust p-values is developed by Jones et al. (2018).

Results

In this section, we represent our results, which broadly fall into three points: (1) decision-making roles change during migration; (2) beliefs change after treatment; (3) behaviors do not change despite the previous two findings. Overall, it appears that supports for seasonal migration do not have a statistically significant effect on gender and social *behaviors*, at least in the short run, but they do change some *beliefs* among beneficiaries. This is consistent with a model whereby personal migration experience may change how one sees his family members' capabilities and/or his sense of justice and inequality, but social norms are deeply entrenched and the cost of deviating from them is so high that attitudes and behaviors are not affected by migration. Other mitigating factors may include the fact that migrants often travel, work, and live with other migrants from their village, limiting their integration in destination areas; that seasonal migration is roughly evenly distributed between urban destinations and other rural destinations; and that norms in urban areas may not be dramatically different from rural ones, particularly among the poor. Altogether, these ensure that the social norm to which the migrant compares his own behavior – and which penalizes deeply for deviation – does not substantially change through migration even when his beliefs do.

During Migration

Our first set of results are descriptive, showing stark differences in participation in intra-household decision making between migration and non-migration periods (Table 8). Focusing on households with migrants (first two sets of columns in Table 8), it is clear that men dominate household decisions (in the surveyed spheres) when they are home, but that a large share of women become decision-makers when men are away. While 43% of migrant households reported that women decide by themselves on household expenses when men are away, for instance, only 2% said women are the sole decision-makers on the same issue when the would-be migrant is home. Alternatively, 81% of households reported that only men decide on household expenditures when they are home. Of these, in 32%, respondents note that the same would-be migrant would make the decision alone even during migration (perhaps through frequent cellphone communication with the household[10]). In another 12% of households, another male of the household would decide on household expenditures, but in 46%, this decision would shift to women alone. Only in 9% of households would expenditures become joint decisions.

Notice that joint decisions are somewhat uncommon, both during migration and when men are home. Not surprising for this context, male decision-making dominates when men are home (second and third set of

[10] Eight-five percent of households in our sample provided us with a mobile number through which they could be reached.

columns); but even when men are away (first set of columns), it is more likely that a decision is made by women alone than jointly across genders (either through communication with the migrant male or joint decision-making between remaining male and female adult household members). This is likely largely explained by the relatively small household sizes in our study – median household size is 4, and only 24% of households have more than one male adult member – and in Bangladesh in general, where fertility is low given country's poverty level and households tend to be nuclear (UNFPA 2016). Less than 1% of households in our sample say that someone *outside* the household, such as a mother- or father-in-law, would make any of the decisions then the would-be migrant is away.

This pattern in decision-making lends evidence to not only the entrenchment of the cultural norm of men as the primary decision-maker, but also the temporary nature of the shift to women during male absence. The high level of male decision-making during the migration period, particularly with respect to female physical mobility, highlights the strength of the default to men as decision-makers and the connection that migrants have to their household even during their physical absence. At the same time, the shift in decision-making during migration, whereby 43% of households in which men are usually the sole decision-maker on expenditures become households in which women are temporarily the sole decision-maker in that sphere, also points to an alternative social norm, under which women may make expenditure decisions alone *when men are absent*. While this is shift may be in part mechanical, as women decide alone by default when men are not present to decide, it could have been curtailed through constant mobile phone communication from the migrant or through a transfer in decision-making to male family members outside the household. The fact that the former occurs to only a limited extent and the share of the latter pattern is negligible is consistent with the existence of a different norm during migration – whereas men are generally the sole decision-makers in this households, it is common and acceptable that this role shifts to women during male migration.

Table 8. Spheres of Decision-Making, during migration and not (2016 data)

	Migrant Households						Non-Migrant Households		
	when migrate			when home			when home		
Decision-makers:	**women alone**	**joint**	**men alone**	**women alone**	**joint**	**men alone**	**women alone**	**joint**	**men alone**
Exp: Household expenses	0.43	0.16	0.40	0.02	0.17	0.81	0.14	0.23	0.63
Fem Mob: Outside Community	0.20	0.18	0.61	0.04	0.19	0.77	0.16	0.22	0.62
Fem Mob: Bazaar	0.26	0.13	0.60	0.03	0.14	0.84	0.16	0.15	0.69
Fem Mob: Hospital/Doctor	0.26	0.17	0.57	0.03	0.22	0.75	0.16	0.23	0.61
Fem Mob: NGO/programs	0.20	0.16	0.64	0.04	0.18	0.78	0.17	0.17	0.67
percent of migrant households reporting decision-maker at home the same as during migration, P(decision-maker at home=column) | (decision-maker during migration=column)									
Exp: Household expenses	5.19	53.64	91.56						
Fem Mob: Outside Community	13.66	60.82	91.52						
Fem Mob: Bazaar	9.38	54.07	95.23						
Fem Mob: Hospital/Doctor	9.18	60.15	91.95						
Fem Mob: NGO/programs	15.55	68.24	92.92						

Note: Households with migrants in the previous (2015/2016) lean season, regardless of treatment status in 2014, were asked about decision-making participation during migration and once the migrant returned home. The first and second column pertains to those households while the third set presents the responses for households that did not have a migrant in the previous season (regardless of treatment status).

This description, under which women may become sole decision-makers during migration not as a *deviation* from the social norm but as an *embedded* exception to the social norm, is corroborated by our qualitative research. Some male focus group participants explained that, while they hesitate to migrate because of the judgement of other villagers as their wives move outside the home and run errands, they also reason that other villagers "understand that we have to migrate because we are poor."[11]

Beliefs

Next, we look at how subsidies for seasonal migration – largely undertaken as a coping strategy among the poor during the lean season – impact individual beliefs with respect to gender and social norms. The coefficients presented in this section are all intent-to-treat (ITT) effects, and we only include the coefficient on the treatment variable for each regression, along with its standard error and unadjusted and adjusted p-values.

First, treatment increased the likelihood that a respondent would report knowing "a woman who is capable of managing household affairs without help from her husband" at the end of the lean season (Table 9). While it is possible that this is due to migrant men observing women in destination areas who are successfully running their households, this change is also likely explained by men seeing their own wives – or the wives of others in their village – managing the household during a migration spell. Note here also that responses to this question are not simply dependent on *meeting* or knowing a capable

[11] Focus groups carried out Rangpur in November-December 2016.

woman (which would increase with migration and exposure to more people), but that to respond affirmatively, the respondent must *believe* that the woman he has in mind is capable of running the household. Rather, given our first result, where women are indeed on average given more decision-making authority and physical freedom while men are away, a likely explanation lies in the possibility that men come to recognize that their own female house members (or other female members in their village) are capable of managing these additional responsibilities once that role is actually taken on during male migration.

Table 9. Regression Results: Beliefs regarding Women

Household head response (% Yes)	Coef. (SE)	p-value	Adjusted p-value
Have you met a woman who is capable of managing household affairs without help from her husband?	0.0240** (0.00950)	0.013	0.015
Have you met women who has a good understanding of politics and government?	-0.00387 (0.0166)	0.817	0.952

Standard errors in parentheses. Errors clustered at the village level. Adjusted p-values account for the FWER by considering the regressions included in this table as a family. * p<0.10, ** p<0.05, *** p<0.01 using the adjusted p-values.

The migration offer also changed individual beliefs on inequality and government responsibility (Table 10). As individuals travel to other areas in search of labor opportunities, they may acquire more information on differences in income – either between themselves and wealthier people, or between the incomes available to them normally and incomes only available in urban areas – and this appears to affect their expectations for the role of government in closing that gap. In particular, treated households are more likely to believe that is the government's responsibility to address income inequality, though not necessarily through the provision of jobs. Rather, as migrants travel for employment during the slack season, it may be that they come to see poverty as not necessarily caused by a scarcity of jobs per se, as there were employment opportunities available in their destination areas. It may also be that existing jobs provided by the government are undesirable or uncommon, as indicated by the relatively low use (9%; Table 16 below) of these services, and not associated with improving the lives of the poor.

Table 10. Regression Results: Political Beliefs

Do you agree or disagree with the following statements (% agree, household head response):	Coef. (SE)	p-value	Adjusted p-value
Government should reduce differences in income between people with high incomes and those with low incomes.	0.0506** (0.0206)	0.015	0.015
Government should help the poor by providing them a job.	-0.000143 (0.00192)	0.941	0.952
Political parties should help the poor by giving them some gift in return for their vote.	-0.0663** (0.0311)	0.035	0.027

Standard errors in parentheses. Errors clustered at the village level. Adjusted p-values account for the FWER by considering the regressions included in this table as a family. * p<0.10, ** p<0.05, *** p<0.01 using the adjusted p-values.

Treated households also become more likely to view vote-buying by political parties more negatively, decreasing their support for the practice by 6.6 percentage points. A potential explanation may lie in the migration take-up as agency: as individuals migrate for work, they may come to see hand-outs as less

acceptable, particularly in exchange for a vote, and instead lean further towards the values of individual responsibility and ownership.

The role of individual experience – rather than exposure to different norms – in changing beliefs is further supported by the fact that, though urban and rural areas in Bangladesh differ substantially in terms of amenities, some cultural norms, particularly those relating to gender, do not appear to diverge too dramatically. Levels of fertility and the average reported desired number of children among women, for example, are generally the same in rural and urban areas, and female marriage age is very low in both settings (UNFPA, 2016).[12] Moreover, in our study we have found that seasonal migrants tend to travel with others as a way to share costs and risk, with only 10% of migrants going to a destination by themselves. In many cases, these migrants tend to also seek employment (or secure employment beforehand) together, and share accommodations, ensuring that a lot of their day-to-day interactions during the migration episode are with acquaintances from their area of origin.[13]

Actions and Behaviors with Respect to Norms

Having observed a change in decision-making roles during migration and a change in beliefs after migration, we now move to an analysis of the impact of subsidy offers for seasonal migration on actions related to social norms. As above, the results presented here are ITT, and include both unadjusted and FWER-adjusted p-values. In contrast to the results on beliefs, however, we find no change in *behaviors* relating to gender or social norms, including those on intra-household decision-making roles, expenditure allocations, female labor force participation, gender-based violence, or civic engagement and use of local services and safety nets. Invoking Abadie (2018), which argues that non-significant results are just as informative, if not more, than significant ones, we present a summary of the results on behaviors related to social norms, which show no effect across the board.

Above, we have shown that women take on more decision-making (sometimes jointly but often alone) when an adult male household member migrates. Here, we explore decision-making roles once the migrant has returned. For this analysis, we have two rounds of data. The first is from 2014, collected about 6 months after the subsidies were disbursed and soon after the end of the migration period. The second, conducted in 2016, is part of a follow-up survey of the same households, but data was collected

[12] The median age for girls' first marriage is 15.6 years in rural areas and 16.5 in urban areas in Bangladesh.
[13] The sex ratio in urban areas may also limit the exposure of migrants to women or more progressive gender norms, as urban areas in Bangladesh tend to have substantially more men than women (the latter who, additionally, tend to stay indoors). This imbalance is most extreme in Dhaka, where there are 125 men for every 100 women (UNFPA, 2016), and is due to the large influx of male cyclical and permanent migrants, and does not account for temporary migrants (less than 6 months), who are also overwhelmingly male.

about 6 months *after* that year's migration period, with no subsidy disbursements in the interim. The two datasets were deployed about 1.5 years apart, and rely on a single treatment in 2014. Observe that, given the 2014 treatment design, there are actually three broad arms: (1) treated, (2) untreated households in villages where others received treatment, (3) untreated households in control villages.[14] In all of the regressions in this section we focus on the first and third groups, ignoring the intermediary group, as these were not directly offered the loan and should only respond through spillover effects from the first group.[15]

Table 11 presents the regression results for the first set of outcomes related to intra-household decision-making roles – those with respect to expenditures on oneself (female or male respondent). To interpret the table, notice that a regression was run for each outcome (e.g., women report that they decide alone on food expenditures for themselves), controlling for upazila, and only the coefficient of the treatment dummy is reported. Table 11, for example, presents the coefficient for treatment from 18 (=3 x 6) different regressions. Standard errors for the coefficient are reported in parenthesis; under it is the unadjusted p-value. To account for the FWER, these 18 regressions were treated as a family, and the adjusted p-value is presented underneath. As can be seen, without the adjustment, only one coefficient is significant at the 5% level, and none are once the adjustment is implemented.

Table 11. Regression Results: Participation in Spheres of Decision-Making, Expenditures on Oneself

	female response			male response		
Decision-Makers:	**women alone**	**women participate**	**men alone**	**women alone**	**Women participate**	**men alone**
Expenditures, Self: Food	0.0119	-0.0382	0.0352	0.0168	-0.0316	0.0327
	(0.0209)	(0.0219)	(0.0215)	(0.0154)	(0.0237)	(0.0236)
p-value	0.571	0.083	0.105	0.276	0.186	0.168
adjusted p-value	0.941	0.606	0.676	0.904	0.823	0.802
Expenditures, Self: Health Care	0.00999	-0.0414	0.0350	0.0131	-0.0269	0.0313
	(0.0131)	(0.0219)	(0.0228)	(0.00640)	(0.0268)	(0.0278)
p-value	0.448	0.061	0.128	0.043	0.318	0.263
adjusted p-value	0.920	0.516	0.725	0.442	0.920	0.897
Expenditures, Self: Clothing	0.00495	-0.0130	0.00926	0.00499	-0.0244	0.0308
	(0.0120)	(0.0263)	(0.0259)	(0.00524)	(0.0254)	(0.0251)
p-value	0.679	0.622	0.722	0.343	0.338	0.223
adjusted p-value	0.941	0.941	0.941	0.920	0.920	0.857

Standard errors in parentheses. Errors clustered at the village level. Adjusted p-values account for the FWER by considering the regressions included in this table as a family. * p<0.10, ** p<0.05, *** p<0.01 using the adjusted p-values.

[14] More precisely, there are actually five arms, since the share of treated households comprised either 0%, 14%, or 70% of eligible households in each village.

[15] We likely would have considered the intermediary group had we observed effects of treatment on those directly offered the subsidies. However, since directly treated households do not demonstrate a change in actions, there is no reason to expect any effect on the spillover group, which essentially received a weaker form of the treatment in terms of migration incentives and, possibly, information on existing social norms in other areas of Bangladesh.

We have included the analogous results for other decision-making spheres – expenditures on various child-related categories and on female physical mobility – in Appendix Tables A1 and A2, and the findings are largely the same, with none of the effects statistically significant once adjustments are made.

Next, we explore the same issue using data from the 2016 follow-up survey, which was used above in the discussion on women's increased decision-making role when men migrate. Note that, by design, the set of questions regarding decision-making during the migration period was only asked of households that had a migrant in 2015/2016, but all respondents were asked about decision-making when members are home.[16] Table 12 shows regression results for treated and non-treated households (data from the last six columns of Table 8). Some unadjusted p-values fall below 0.10, but none of the coefficients are significant once we adjusted for the FWER, again indicating that decision-making roles *when men are home* are unchanged by treatment. (Results separated by male and female responses are included in the Appendix.[17]) That is, while it may be culturally acceptable for women to travel outside the household and make decisions when it is known that the migrant is not present, norms dictate that this cannot be extended to the period when men are home.[18]

Table 12. Regression Results: Participation in Spheres of Decision-Making, Follow-up Survey

Decision-Makers:	women alone	joint	men alone
Expenditures: Household Expenses	-0.0238	-0.0186	0.0424
	(0.0138)	(0.0221)	(0.0241)
p-value	0.0868	0.401	0.0807
adjusted p-value	0.559	0.939	0.549
Female Mobility: Outside Community	-0.0229	0.00499	0.0179
	(0.0196)	(0.0276)	(0.0366)
p-value	0.245	0.857	0.625
adjusted p-value	0.829	0.999	0.988
Female Mobility: Bazaar	-0.0261	-0.00370	0.0298
	(0.0153)	(0.0239)	(0.0297)
p-value	0.0910	0.877	0.317
adjusted p-value	0.559	0.999	0.890
Female Mobility: Hospital/Doctor	-0.0270	0.00875	0.0182
	(0.0164)	(0.0300)	(0.0353)
p-value	0.104	0.771	0.607
adjusted p-value	0.559	0.999	0.988
Female Mobility: NGO/programs	-0.00137	0.00652	-0.00515
	(0.0174)	(0.0255)	(0.0284)

[16] The two scenarios were framed as "if you/your spouse were to migrate…" and "if you/your spouse were in the village…", respectively. Only 2015/2016 migrants were asked about decision-making in the former scenario (regardless of treatment status), though all respondents were asked about the latter.

[17] Another reason to separate the analysis between male and female respondents is that male respondents may be more likely to "overcompensate" in their responses, as migrant households were first asked about decision-making during migration and then decision making at home. So, as male respondents state that women are more likely to decide alone during their absence, they may be more likely to then overcompensate to restate their authority in the household by responding that they make the decision alone when they are present. Separating between female and male respondents, however, greatly decreases our sample size and power, and our results again show no effect in decision-making participation from the treatment two years prior.

[18] The difference in responses with respect to decision-making during the migration period and when members are home also allows us to reject the possibility that the lack of observed effect is due to inadequate questions. We confirm here that these questions are able to capture differences in decision-making participation across sexes.

p-value	0.937	0.799	0.857
adjusted p-value	0.999	0.999	0.999

Standard errors in parentheses. Errors clustered at the village level. Adjusted p-values account for the FWER by considering the regressions included in this table as a family. * p<0.10, ** p<0.05, *** p<0.01 using the adjusted p-values. A keen observer may notice that $\hat{\beta}_{women\ alone} + \hat{\beta}_{joint} + \hat{\beta}_{men\ alone} \approx 0$. This is due to the wording of the questions and the allowed responses in the 2016 follow-up survey. Nevertheless, ignoring the joint outcome and adjusting the p-value for 10 regressions instead (considering only women deciding alone and men deciding alone as potential outcomes, as the joint outcome is redundant for gathering the coefficients) does not meaningfully change the results. All of the adjusted p-values are greater than 0.05.

One reason for exploring effects on participation in intra-household decisions is intrinsic, as decision-making is an indicator of bargaining power (with caveats including circumstances in which an individual may not want to make decisions for the households). But interest in decision-making participation, particularly with regards to expenditures, is also tied to the literature showing that women tend to spend more on female- and children-related goods (e.g., Thomas 1990). We can measure the effect of migration subsidies on this outcome directly, and, consisten with the results above, find no effect on household expenditure allocations towards goods for women or girls or that women might be assumed to prioritize (Table 13).

Table 13. Regression Results: Expenditures, 2008 and 2009

2008	Coef. (SE)	p-value	Adjusted p-value
Health expenditures, total female to male	0.00502 (0.260)	0.985	0.995
Clothing expenditures, total female to male	0.166 (0.161)	0.304	0.761
Clothing expenditures, children	2.208 (1.376)	0.112	0.384
Education expenditures, total female to male	-0.139 (0.387)	0.720	0.985
Female-specific expenditures to total expenditures	0.000618 (0.00540)	0.909	0.995
2009			
Health expenditures, total female to male	-0.701 (0.532)	0.190	0.595
Clothing expenditures, total female to male	0.0790 (0.0833)	0.345	0.785
Clothing expenditures, children	2.905 (2.491)	0.246	0.685
Education expenditures, total female to male	0.077 (0.470)	0.870	0.995
Total expenditures, total female to male	-0.00137 (0.00302)	0.650	0.983

Standard errors in parentheses. Observations for lines 1, 2, 4, and 5 in each survey round limited to households with at least one male and one female member (96%). Observations for lines 3 in each survey round limited to households with at least one school-aged child (53%). Errors clustered at the village level. Adjusted p-values account for the FWER by considering the regressions included in this table as a family. * p<0.10, ** p<0.05, *** p<0.01 using the adjusted p-values.

We treat the two questions on female labor force participation decisions and outcomes as a family, and the three on threats and violence experienced by female respondents as another (Tables 15 and 16). The point estimates are all very small, and none are statistically significant, again indicating no change in behavior in response to the migration incentives.

Table 14. Regression Results: Female Labor Force Decision and Participation

	Coef. (SE)	p-value	Adjusted p-value
Male respondent: Are women in your HH allowed to work to earn money?	-0.00630 (0.040)	0.875	0.875
Female respondent: Are you currently working for an income?	0.0257 (0.0304)	0.401	0.380

Standard errors in parentheses. Errors clustered at the village level. Adjusted p-values account for the FWER by considering the regressions included in this table as a family. * p<0.10, ** p<0.05, *** p<0.01 using the adjusted p-values.

Table 15. Regression Results: Threats, Violence, and Relationships

Has your husband/other family member ever: (% Yes)	Coef. (SE)	p-value	Adjusted p-value
Threatened You with Divorce/Other Wife	0.00845 (0.00998)	0.399	0.379
Verbally Abused You	-0.0103 (0.0316)	0.745	0.582
Physically Abused You	-0.0144 (0.0146)	0.327	0.378

Standard errors in parentheses. Errors clustered at the village level. Adjusted p-values account for the FWER by considering the regressions included in this table as a family. * p<0.10, ** p<0.05, *** p<0.01 using the adjusted p-values.

Notice that these results on participation in household decision-making, female labor force participation, and even violence, are not at odds with the positive impact observed on male perceptions of women's capabilities. First, even in the control group the vast majority of men (96%) report knowing a woman who is capable of managing the household without a man. This indicates that the lack of decision-making power among women, particularly with respect to their physical mobility, is not due to an underlying lack of confidence in women's abilities but to entrenched behaviors. And though migration may convince an additional man that his wife can run the household in his absence, cultural norms – and the cost of deviating from them – prevent him from allowing her to do so or sharing that responsibility with her while he is present. He may recognize her abilities, but is not going to defy the norm in front of his neighbors given the social costs of doing so.

Political and civic actions – outside the household realm and mostly reliant on engagement with the local government (union parishad) – appear to be similarly static, and to a certain extent limited by norms (Table 16). Most of indicators studied here, such as receiving food-for-work and arbitration services, are admittedly driven by multiple forces, such as the need for assistance, availability of resources, and possibly any corruption or biases in delivery. Nevertheless, the first – having had a conversation with the union parishad chairman – is less subject to these other forces, recalling that 53% of households in our sample answer this question affirmatively. That is, despite changes in the beliefs of treated households regarding the role of the government, we do not find any difference the likelihood that they have interacted with local government officials compared to the control group, even though most safety net programs are allocated and disbursed at the local level in Bangladesh.

Table 16. Regression Results: Political and Civic Participation

Household head response (% Yes)	Coef. (SE)	p-value	Adjusted p-value
Have you had a conversation with the union parishad chairman in the past 6 months?	-0.00175 (0.0321)	0.542	0.944
Have you ever received a national ID/voter ID from your union parishad?	-0.00921 (0.00514)	0.076	0.139
Have you ever received a citizenship certificate from your union parishad?	0.0458 (0.0271)	0.094	0.181
Have you ever received a birth certificate from your union parishad?	0.0106 (0.00795)	0.187	0.433
Have you ever received a trade license from your union parishad?	-0.00218 (0.00786)	0.782	0.987
Have you ever received safety net support from your union parishad?	-0.0255 (0.0357)	0.476	0.908
In the past year, did you receive food or money in return for work (e.g. digging canal, building roads) from your union parishad?	-0.0151 (0.0160)	0.346	0.760
In the past year, did you receive assistance with a local arbitration (shalish) from your union parishad?	-0.00275 (0.0228)	0.904	0.987
Are you a member of any labor union?	-0.00246 (0.00879)	0.780	0.987
Are you a member of any farmer's association?	-0.00360 (0.00588)	0.541	0.944
Is there a political party you especially like?	0.00206 (0.0262)	0.937	0.987

Again, these results do not conflict with those on beliefs, but further demonstrate that a change in beliefs does not necessarily translate into action. Though treated households are more likely to believe in the role of government in addressing income inequality, for example, they do not access their union parishad at higher rates than control households. While a migrant may come to believe more strongly in individual agency (as opposed to vote-buying) and on the role of government, he may nonetheless not have faith in its ability to deliver a service or might be bound by cultural norms that prevent him for accessing the service. Local customs may dictate who "should" or "deserves" access and under what terms, as well as impose social penalties for certain uses or participation in certain groups. At the same time, the local government may not have the capacity to attend higher demand, even if migrants return with greater expectations from the government in addressing income inequality.

Altogether, our results support the notion that there is a set of acceptable social norms applicable while men are away and other norms in the presence of men, an idea corroborated through our qualitative work, where some participants shared that, while they would prefer that their wives did not carry errands on their own, village members understood the necessity of doing so during a period of absence of male household members. In this sense, increased female mobility while men are away does not deviate from the social norm, as the latter allows for the periods of male migration. The same behavior while male household members are present, however, has very large social costs. Accordingly, we find that, when migrants are away, as many as one in five women become the sole decision-makers regarding their freedom of movement, a very rare phenomenon when migrants are home.

Table 17. Spheres of Decision-Making, during migration and not (2014 data)

Do you feel that your partner's migration has impacted your relationship...	
Negatively	0.00
Positively	0.09
No impact	0.41
N/A	0.50

Lastly, we corroborate our null effects with respect to actions with a note on responses to a direct question included in the 2014 survey. Specifically, among women whose partners migrated during the lean season (50%), the vast majority felt that the migration itself had no impact on their relationship. While subjective, this result is consistent with our zero-impact findings on behaviors. That said, one in five women whose partners migrated felt it had a positive impact on their relationship, and, reassuringly, less than 1% reported a perceived negative impact. The positive impact may point, perhaps, to a change in their partner's recognition of their abilities (or other aspects of their beliefs regarding their spouse), even if it did not lead to improvements in the respondent's decision-making position or freedom.

Conclusion

This paper analyzes the effect of providing subsidies for seasonal migration – which has already been proven to work in not only raising migration rates among the rural poor, but also in improving their income, expenditures, and caloric intake – on behaviors, attitudes, and social norms. Adjusting for multiple hypothesis testing, we find clear changes in some beliefs with respect to gender and income inequality, but no accompanying behavioral change. While women may take on more responsibilities and gain more physical mobility during their partner's absence, and their partner may come to recognize that women are capable of running a household on their own, entrenched cultural norms prevent this pattern from changing behaviors.

Likewise, though migrants may come to adopt more democratic beliefs, this does not change their engagement with local government or access to services in the short run, as these outcomes may be restricted by norms and/or state capacity.

Nevertheless, the two shifts we do observe with respect to gender could lead to gains in the long-run. On one hand, male migration may represent an additional burden on women during their partners' absence, as women have to run the household alone and may nonetheless be stigmatized by society for having to carry out chores outside their homes by themselves. On the other, the greater level of empowerment and physical freedom, even if temporary, may lead to improvements in how men (both their partners and

others in the village) perceive women, their abilities, and their rights to physical mobility. Over time, this could enable women to gain more freedom and decision-making authority, though we do not observe this in a two-year period.

Similarly, changes in political beliefs could eventually translate into behavioral changes. In the short run, we find that migrants are more likely to point to the role of government in reducing income inequality, but do not observe similar changes in civic participation (including voting) or accessing local services. It is possible, however, that these beliefs may gradually lead to social change, over time and perhaps over generations, as more individuals shift their beliefs and collectively lower the cost of deviating from the cultural norm.

The immediate effect of seasonal migration supports on non-economic outcomes, however, is limited to changes in some beliefs, with no accompanying effect on behaviors. This points to deeply entrenched norms with high costs for deviating from them, though with allowances for periods of male absence.

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Appendix

For the family of decisions relating to expenditures on children (Table A1), the coefficient for the treatment variable is not significant at the 5% level in any of the 24 regressions, even prior to adjustment.

Table A1. Regression Results: Participation in Spheres of Decision-Making, Child-Related Expenditures

	female response			male response		
Decision-Makers:	**women alone**	**women participate**	**men alone**	**women alone**	**Women participate**	**men alone**
Expenditures, Children: Food	-0.0261	-0.0120	0.0131	-0.0198	-0.00666	0.00868
	(0.0231)	(0.0179)	(0.0165)	(0.0203)	(0.0260)	(0.0238)
p-value	0.260	0.504	0.430	0.330	0.798	0.717
adjusted p-value	0.742	0.982	0.955	0.865	1.000	0.999
Expenditures, Children: Health Care	-0.00831	-0.0134	0.0100	0.00770	0.000389	0.000124
	(0.0167)	(0.0213)	(0.0203)	(0.0103)	(0.0212)	(0.0192)
p-value	0.620	0.530	0.623	0.454	0.985	0.995
adjusted p-value	0.998	0.986	0.998	0.968	1.000	1.000
Expenditures, Children: Education	-0.000589	-0.00287	0.00479	0.00308	-0.0291	0.0236
	(0.0151)	(0.0175)	(0.0157)	(0.0113)	(0.0204)	(0.0174)
p-value	0.969	0.870	0.760	0.786	0.158	0.178
adjusted p-value	1.000	1.000	1.000	1.000	0.451	0.515
Expenditures, Children: Clothing	-0.00441	-0.00157	0.00616	0.00409	-0.000341	0.00618
	(0.0110)	(0.0252)	(0.0233)	(0.00879)	(0.0250)	(0.0216)
p-value	0.688	0.951	0.792	0.642	0.989	0.775
adjusted p-value	0.999	1.000	1.000	0.998	1.000	1.000

Standard errors in parentheses. Errors clustered at the village level. Adjusted p-values account for the FWER by considering the regressions included in this table as a family. * p<0.10, ** p<0.05, *** p<0.01 using the adjusted p-values.

With regards to female physical mobility, we find that women in treated households less likely to report that they participate in the decision of whether they can go to the hospital or not, matched with a higher probability that men in their households decide on this alone, but this is not accompanied by a similar effect reported by men (Table A2). It is possible that perhaps women who fell ill during their husband's migration felt they were not free to go to the doctor during that period, though the interpretation of this variable is complicated by the fact that hospital visits are associated with an underlying medical need. As shown in Table 10, we do not observe any change in medical expenditures between sexes in response to the subsidy.

Table A2. Regression Results: Participation in Spheres of Decision-Making, Female Physical Mobility

	female response			male response		
Decision-Makers:	**women alone**	**women participate**	**men alone**	**women alone**	**Women participate**	**men alone**
Female Mobility: Outside Community	-0.0142	-0.0371	0.0356	-0.0191	-0.0258	0.0313
	(0.0203)	(0.0253)	(0.0254)	(0.0188)	(0.0257)	(0.0260)
p-value	0.487	0.145	0.164	0.310	0.317	0.231
adjusted p-value	0.966	0.388	0.448	0.813	0.813	0.641
Female Mobility: Bazaar	-0.0295	0.0302	-0.0130	-0.00542	0.0240	0.000457
	(0.0360)	(0.0401)	(0.0423)	(0.0341)	(0.0395)	(0.0421)
p-value	0.415	0.452	0.759	0.874	0.544	0.991
adjusted p-value	0.927	0.949	0.999	1.000	0.982	1.000
Female Mobility: Hospital/Doctor	-0.00659	-0.0485**	0.0435*	-0.000418	-0.0276	0.0344
	(0.0192)	(0.0220)	(0.0215)	(0.0189)	(0.0265)	(0.0269)
p-value	0.733	0.029	0.046	0.982	0.300	0.203
adjusted p-value	0.999	0.039	0.073	1.000	0.807	0.562
Female Mobility: NGO/programs	-0.00662	0.00219	0.000680	-0.00724	0.0128	-0.00898
	(0.0170)	(0.0268)	(0.0267)	(0.0189)	(0.0268)	(0.0284)
p-value	0.698	0.935	0.980	0.702	0.634	0.752
adjusted p-value	0.999	1.000	1.000	0.999	0.997	0.999

Standard errors in parentheses. Errors clustered at the village level. Adjusted p-values account for the FWER by considering the regressions included in this table as a family. * p<0.10, ** p<0.05, *** p<0.01 using the adjusted p-values.

Though the 2016 follow-up survey did not ask both men and women questions regarding decision-making roles, respondents were almost evenly distributed between men and women, with no systematic difference in the sex of the respondent by 2014 treatment group (Table A3). Taking advantage of this, we run regressions separately for female and male responses, though we again do not find any statistically significant effect from the treatment on these (Table A4).

Table A3. Respondent Sex, Follow-up Survey

	Shares male and female				
	All	Control	Incentivized	p-value (share female in control=incentivized)	p-value (share female in control=incentivized)
Male	44.67	43.73	45.03	0.570	0.248
Female	55.33	56.27	54.97		
Controls for upazila				no	yes
Errors clustered at the village level				no	yes

Table A4. Regression Results: Participation in Spheres of Decision-Making, Follow-up Survey

	female response			male response		
Decision-Makers:	**women alone**	**joint**	**men alone**	**women alone**	**joint**	**men alone**
Expenditures: Household Expenses	-0.0415	-0.0178	0.0592	0.00585	-0.0248	0.0190
	(0.0229)	(0.0282)	(0.0302)	(0.0120)	(0.0309)	(0.0325)
p-value	0.0730	0.529	0.0520	0.626	0.423	0.561
adjusted p-value	0.229	0.993	0.156	0.996	0.965	0.993
Female Mobility: Outside Community	-0.00940	0.0329	-0.0235	-0.0253	-0.0285	0.0544
	(0.0275)	(0.0336)	(0.0446)	(0.0210)	(0.0336)	(0.0400)
p-value	0.734	0.329	0.600	0.219	0.397	0.176
adjusted p-value	0.998	0.912	0.995	0.738	0.955	0.630
Female Mobility: Bazaar	-0.0292	-0.00165	0.0308	-0.0106	-0.00746	0.0181
	(0.0231)	(0.0304)	(0.0381)	(0.0148)	(0.0300)	(0.0334)
p-value	0.210	0.957	0.421	0.476	0.804	0.589
adjusted p-value	0.728	0.999	0.965	0.983	0.998	0.994
Female Mobility: Hospital/Doctor	-0.0269	0.0174	0.00950	-0.0153	-0.00272	0.0180
	(0.0271)	(0.0362)	(0.0441)	(0.0145)	(0.0358)	(0.0369)
p-value	0.323	0.632	0.830	0.294	0.940	0.626
adjusted p-value	0.909	0.996	0.998	0.883	0.999	0.996
Female Mobility: NGO/programs	0.0234	-0.00941	-0.0140	-0.0161	0.0134	0.00270
	(0.0259)	(0.0319)	(0.0370)	(0.0167)	(0.0348)	(0.0368)
p-value	0.367	0.769	0.706	0.336	0.700	0.942
adjusted p-value	0.938	0.998	0.998	0.917	0.998	0.999

Standard errors in parentheses. Errors clustered at the village level. Adjusted p-values account for the FWER by considering the regressions included in this table as a family. * p<0.10, ** p<0.05, *** p<0.01 using the adjusted p-values. A keen observer may notice that $\hat{\beta}_{women\ alone} + \hat{\beta}_{joint} + \hat{\beta}_{men\ alone} \approx 0$. This is due to the wording of the questions and the allowed responses in the 2016 follow-up survey. Nevertheless, ignoring the joint outcome and adjusting the p-value for 20 regressions instead (considering only women deciding alone and men deciding alone as potential outcomes, as the joint outcome is redundant for gathering the coefficients) does not meaningfully change the results. All adjusted p-values remain above 0.100.

Graph A1. Distribution of p-values