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The Roles of Gender and Education on the Intrahousehold Allocations of Remittances of Filipino Migrant Workers

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Abstract

This paper shows that the individual's bargaining power within the household, proxied by gender and educational attainment of household head, affects how remittances sent by Overseas Filipino Workers are spent in the Philippines. Gender of the household head, not of the remitter, matters in the allocation of remittances. As remittances increase, female heads with absent spouses spend less on alcohol and tobacco while male heads with absent spouses spend more on these goods; regardless of gender, household heads with less education allocate more to education than those with more education.

I. Introduction

The general findings of recent studies on resource allocation within households show that the individual's relative bargaining power affects intrahousehold allocation outcomes. In particular, the higher the relative resources controlled by women, the higher the expenditure shares allocated to food and children's clothing and education, and the lower the shares for alcohol and cigarettes (Hoddinott and Haddad, 1995; Quisumbing and de la Briere, 2000; Quisumbing and Maluccio, 2003; Rubalcava et al., 2004). In addition, resources in the hands of women improve the health status of children and have greater effects on the family's health (Thomas, 1990; Duflo, 2003).

These results have important policy implications and they affect the efficacy of public transfers. For example, in Mexico, since 1997, the government has provided cash and in-kind benefits to poor households in rural areas through the *Programa Nacional de Educación, Salud y Alimentación* (PROGRESA), which is a major government anti-poverty strategy. The aim is to transfer income to alleviate future levels of poverty by encouraging investments in education, health, and nutrition (Skoufias and McClafferty, 2001). The monetary and in-kind benefits are transferred directly to mothers due to research findings that resources controlled by women tend to improve child health and nutrition (Adato et al., 2000).

This paper adds to the intrahousehold allocation literature by incorporating migration and remittances into the research using datasets from the Philippines given the moral hazard problem.[1] The goals of this study are twofold: first, it examines whether the individual's bargaining power within the household, using gender and educational attainment of the household head as proxy measures, affects how remittances are spent. That is, the allocation decision of female heads with migrant spouse is compared with that of male heads with migrant

spouse and the allocation decision of more educated heads with migrant spouse is compared with less educated heads with migrant spouse. Second, it analyses the allocation behaviour of male household heads whose wives are present (compared to male household heads whose wives are absent) and female household heads who are divorced, widowed, or separated (compared to female heads whose husbands are abroad) to test the role of moral hazard (imperfect monitoring) in the allocation of remittances.

The goals of this paper are significant in two ways. First, migration and remittances are relevant in intrahousehold allocation, and so it is important to develop ways to incorporate them into this area of study. Migration may affect the power structure in the household; women working abroad may gain bargaining power over the allocation of household resources due to an increase in their income. On the other hand, de facto female household heads whose husbands are working abroad might have more say about the actual allocation of resources since their spouses have limited ability to monitor the allocation. Depending on who has the bargaining power, the remittances may be spent and allocated differently, and the allocation of remittances may affect the welfare of the household members. Such changes in allocation would depend on the asymmetric preferences of men and women.

Second, it is fitting to analyse intrahousehold allocations in the Philippines in the context of migration and remittances considering the number of Filipino migrant workers abroad and the role remittances play in the country. Data from the Survey on Overseas Filipinos (SOF) in 2008 indicate that approximately two million Overseas Filipino Workers (OFWs) were abroad (about 2 per cent of the total population in the Philippines); about 51 per cent were male and 49 per cent female. Most of the OFWs (20%) worked in Saudi Arabia; about 14 per cent worked in Arab Emirates, Singapore, Hong Kong, Japan, Qatar, and Taiwan; 9 per cent in Europe; and 8 per cent

in North and South America. One out of three OFWs were labourers and unskilled workers, which include domestic helpers, cleaners, and manufacturing labourers. The remittances that these OFWs send to their origin households in the Philippines are an important source of income for the households and for the economy as a whole. According to 2008 data from the Annual Poverty Indicator Survey, on average, remittances are about 58 per cent of the total household income of remittance-receiving households. They also totalled approximately 15 billion US dollars in 2008, which made these cash transfers the second largest source of foreign exchange in the Philippines, next to exports of goods and services, based on 2008 data from Central Bank of the Philippines. Given the importance of remittances, how these are spent and allocated by the households not only affects the welfare of households in the Philippines but also impacts the Philippine economy.

The results in this paper suggest that a gender differential exists in how remittances are spent in the Philippine household after using gender of household head as a proxy for relative bargaining power of an individual. The expenditure allocations of remittances in households headed by females whose husbands are working abroad are consistent with the findings in the intrahousehold bargaining literature: shares on education and health increase, while they decrease on alcohol and tobacco. Female heads who are either divorced, separated, or widowed behave similarly, which confirms that imperfect monitoring plays a role in the allocation process as well as the fact that the husband is not present to consume alcohol and tobacco. In other words, female heads with migrant husbands act as if their husbands do not exist and they decide the allocation of remittances as if they are divorced, widowed, or separated due to the fact that their husbands are unable to monitor their decisions. For male heads with migrant spouses, their preferences are unexpected: while they allocate more to alcohol and tobacco and less to food,

they also devote more remittances to education. When wives are present, the findings on food and education are similar to those when wives are absent, while the effect of remittances on alcohol and tobacco is statistically insignificant. These results imply that regardless of the gender of the household head or whether the spouse is absent or present, education is valued by all of the household types that are analysed in this study. There is also evidence that educational attainment of the household head influences intrahousehold allocations. High school educated female heads spend more remittances on education than female heads with a college education. The same can be said for less-educated male heads whose wife is present: they tend to allocate more remittances to education than male heads with more formal education.

The outline of this paper is as follows. Section II provides a brief review of related literature on gender and intrahousehold allocation in the Philippines, and on the link between intrahousehold allocation and migration. Section III briefly discusses different models of intrahousehold allocation. Section IV presents the theoretical model. Section V focuses on testing gender as a measure of bargaining power, which includes the empirical model used, identification issues, descriptive analysis, and the results of regressions. Section VI examines whether education of the household head matters in the allocation of remittances. Section VII checks the robustness of the results and tests the role of moral hazard (imperfect monitoring) in intrahousehold allocation. Section VIII is the conclusion.

II. Review of Related Literature

This paper draws on the voluminous literature on intrahousehold allocation and remittances to determine how the gender of the household head in the Philippines affects the allocation of remittances.

Gender Differentials and Intrahousehold Allocation in the Philippines

Households in the Philippines are interesting to analyse because, according to some scholars, wives and husbands have equal control over resources (Israel-Sobritchea, 1994; Illo, 1995; Jefremovas, 2000). Eder (2006) contends that even if Filipino households are relatively egalitarian compared to those in other societies, women are still disadvantaged at different levels when compared to Filipino men. Although the custom is for husbands to hand their wages over to their wives, which may suggest that women have control over resources, caveats exist. For example, women's access to economic assets is indirect, which limits their role in the allocation of resources (Eviota, 1986). In addition, in poor households, women have small amounts of money to allocate, which limits their economic planning decisions. Not only do women have indirect access to economic assets and limited power in allocating resources, they are also unable to refuse requests from husbands for money to drink or gamble (Chant and McIlwain, 1995).

The limited role of women in allocating resources, partly driven by their limited bargaining power, affects the welfare of household members since women allocate differently than men and they are more concerned with the welfare of the children. For example, Senauer et al. (1988) studied how the opportunity costs of husband and wife can influence intrahousehold allocation of food in rural Philippines. The estimated wage rate of the mother and wife is positively correlated with the relative calories allocated to both herself and her children and negatively correlated with those allocated to the husband. Inversely, an increase in the wage rate of the husband and father increases his own and his wife's allocation but decreases the children's.

Intrahousehold Allocation, Migration, and Remittances

Given that migration potentially affects the power structure within the household, some authors have explored how remittances are affected by relative bargaining power of individuals in the household. Guzman et al. (2008) used Ghana data and examined how gender of the household head, which served as proxy for decision-making power, affected how remittances are spent. To control for the ability of the migrant to monitor the intended use of remittances, the authors controlled for the gender of the remitter, the relationship of the migrant to the household head, and the destination of the migrant (whether inside Ghana or outside). While international remittances decreased the expenditure share for food and increased the expenditure shares for consumer and durable goods, housing, health, utilities, and transport in female-headed households, the share spent on education was unaffected. In male-headed households, remittances had no effect on any expenditure categories. After controlling for gender of the remitter and the relation to the household head, female heads with a spouse working abroad allocated more to education than male heads with a spouse working abroad.

Malone (2007) analysed how the impact of remittances on children's education depended on the revealed preference of mothers, the de facto household heads. The study shows that asymmetric preferences exist and the allocation of remittances differs depending on the gender of the receiver.

Chen (2006) analysed how migration may affect intrahousehold allocation in China in the presence of imperfect monitoring. Migration of fathers resulted in a decrease in mothers' household labour hours and an increase in children's household labour hours. The increase in labour of children was compensated by an increase in their nutritional intake. Mothers resorted to

non-cooperation and increased consumption of the goods that they preferred if these were difficult to monitor (such as a mother's leisure).

III. Unitary and Collective Models of Intrahousehold Allocation

The traditional economic model of intrahousehold allocation, referred to as the unitary model, views the household as a single unit that aggregates the preferences of all its members and maximises a single welfare function. In this model, a household pools its resources so that the household demand for goods is only influenced by total household income and is unaffected by individual income. Empirical tests do little to support the unitary model (Thomas, 1990, 1994; Pezzin and Schone, 1997; Quisumbing and de la Briere, 2000; and Quisumbing and Maluccio, 2003, to cite a few), which has prompted economists to create a new set of models, referred to as collective models (Chiappori, 1992, 1997; Browning et al., 1994; Browning and Chiappori, 1998; Basu, 2001; Koolwal and Ray, 2002; Maitra and Ray, 2003). These models only require Pareto-efficiency outcomes of resource allocation; no a priori assumption on the decision process is made, which allows for heterogeneity in preferences.[2] The role of relative bargaining power of members is important in determining how resources are allocated.

IV. Theoretical Model

The model that I use here follows the collective approach used by Browning and Chiappori (1998) and Quisumbing and Maluccio (2003). Suppose a household consists of two individuals, a male (*m*) and a female (*f*), who have altruistic preferences. Each member cares about the welfare of the other, such that an increase in the private consumption of one member increases

the welfare of the other. If the household behaviour is Pareto-efficient, it will maximise the weighted sum of each member's utility subject to the budget constraint.

$$\text{Max } \mu\, U_m(x_m, x_f; \gamma) + (1-\mu)\, U_f(x_m, x_f; \gamma) \quad (1)$$

subject to:

$$p \,.\, (x_m + x_f) = Y + R$$

The individual utility function U_j, with $j = m, f$, is a function of both members' private consumptions (x_j) and household characteristics (γ). Total household income net of remittances is Y, total household remittances received is R, and p represents a vector of prices for private goods x. The variable μ represents the welfare weight of members in household allocations; it lies between 0 and 1. When the utility functions for both members are identical (common preference) or when μ is equal to 0 or 1, suggesting dictatorship, equation (1) collapses into the unitary model that is a special case of the more general model.

The utility maximization yields a conditional demand function for good i, which is dependent on prices, pooled income, remittances, individual weight, and household characteristics:

$$x_i = x_i(p; Y; R; \mu; \gamma) \quad (2)$$

If b_m and b_f are used as proxies for the individual's relative bargaining power then, ignoring prices, the conditional demand will take the form:

$$x_i = x_i(Y; R; \mu(b_m, b_f); \gamma) \quad (3)$$

A key feature of the conditional demand function above is that the individual welfare weight or sharing rule, μ, is not constant. It is dependent on the individual's relative bargaining power within the household proxied by b_m, b_f.

Differentiating equation (3) with respect to the relative bargaining power of the individual, holding everything else constant, will yield a testable implication of the unitary approach, that income is pooled across household members:

$$\partial x_i / \partial b_j = 0 \quad \text{with } j = m,f \tag{4}$$

The impact of relative bargaining power (b_j) on demand for good i can be considered as the effect of changing the share (μ) of household income allocated to each individual (Quisumbing and Maluccio, 2003). Income pooling under the unitary approach implies that, after controlling for household resources, the identity of the income earner or the one who controls the household resources is irrelevant; the effect of individual bargaining power on demand for commodity i should be zero.

V. Effects of Gender of Household Head on Intrahousehold Allocation of Remittances

Empirical Model

To verify whether bargaining power matters in how Philippine households allocate the remittances they receive from migrant members abroad, I first examine how female-headed households and male-headed households respond to an increase in remittances. I use the following household level expenditure share function, derived from equation (3), which is an extension of the Working-Leser expenditure function; variations of this have been used in other

papers as well (Hoddinott and Haddad,1995; Quisumbing and Maluccio, 2003; Guzman et al., 2008).

I choose the nine categories of goods specified in the Family Income and Expenditure Survey (FIES) – food, education, clothing and personal items, health, household operations, alcohol and tobacco, durable goods, nondurable goods, and other goods:

$$c_{ijh} = \beta_{0ij} + \beta_{1ij} r_{jh} + \beta_{2ij} X_{jh} + u_{ijh} \quad (5)$$

where c_{ijh} is the expenditure share on the *i*th good of household *h* with *j* as the gender of household head (male, *m* or female, *f*); r_h are remittances received by household *h*; and X_h is a vector of household characteristics that affect allocation of resources, which includes log of total expenditure per capita and its square, log of household size, age of household head, educational attainment of household head, educational attainment of the spouse of the head, the proportion of demographic groups in the household, and location dummies; and u_h is the error term. I include square of per capita expenditure so that any observed differences in the effects of gender cannot be attributed to nonlinearities in the Engle Curve (Thomas and Chen, 1994; Hoddinott and Haddad, 1995).

Following Quisumbing and Maluccio (2003), I examine whether male and female household heads allocate remittances differently, that is, $\beta_{1im} = \beta_{1if}$ (but not necessarily equal to 0), which basically tests the unitary model as stated in equation (4). To formally test whether a gender differential exists in allocating remittances, I pool the datasets, add an interaction term to reflect the different responses of male- and female-headed households, and test the following expenditure function:

$$c_{ih} = \beta_{oi} + \beta_{1i} r_h + \beta_{2i} m_h + \beta_{3i} r_h * m_h + \beta_{4i} X_h + u_h \quad (6)$$

where m_h is a dummy variable equal to 1 if male and 0 otherwise; $r_h * m_h$ captures the importance of gender of household head in allocating remittances; and the rest of the variables are the same as in equation (5). If income pooling holds, then the relative bargaining power (gender of the household head) should not affect how remittances are allocated. The null hypothesis to be tested is $\beta_{3i} = 0$, which essentially tests $\beta_{1im} = \beta_{1if}$.

Identification Issues

Econometric issues arise in estimating equations 5 and 6. First, one might argue that remittances and the error term are correlated in equations 5 and 6, that is, remittances can be endogenous, which can lead to a biased and inconsistent estimate. Two potential sources of endogeneity of remittances may occur: omitted variable and reverse causation. Omitted variable bias may exist if remittances and allocation decisions are correlated with an unobserved variable, such as preferences of migrants. Reverse causality is possible if allocation decisions affect the amount of remittances sent. If the migrant and household entered into an informal contract before migration, especially if migration is a household decision, the migrant may be responsible for financing education or other expenditures of siblings or children, which may then affect their remittance decisions.

I initially considered instrumenting for remittances to address endogeneity. For an instrument to be valid, it must satisfy two requirements: it must be uncorrelated to the error term in the household expenditure function (equations 5 and 6); and it must be correlated to remittances. I considered exchange rate as an instrument for remittances. If the currency of the

country where the migrant works appreciates against the Philippine peso then this can be a positive income shock for the migrant's origin household in the Philippines (Yang, 2004). As the Philippine peso becomes weaker against foreign currency, the income of migrants is relatively higher and households may receive higher remittances. However, exchange rate was a poor instrument for remittances based on a regression of remittances on this variable. If the instrumental variable and the exogenous variable it is instrumenting are weakly correlated then the inconsistency in the estimated coefficient when the instrumental variable is used can be larger than the OLS estimator (Wooldridge, 2006). Therefore, I chose not to use instrumental variables for remittances.

Second, the dependent variable, c_{ijh}, is a proportion; it is the share of total expenditures on each *i* category of goods, and is bounded by 0 and 1. One way to handle this is to perform logit transformation and fit the model using OLS. However, the dependent variables also can have values of zero; for example, in some households there are no resources allocated to education or alcohol. In such cases, the transformation will result in missing values and the observation will be dropped from the estimation sample (McDowell and Cox, 2001) A strategy to handle this is to estimate the model using the generalised linear model (GLM) as proposed by Papke and Wooldridge (1996). Hence, using this proposed approach I estimate equations 5 and 6 using GLM with logit link function (or logit transformation of the response variable) and the binomial distribution.[3]

Third, the measures of bargaining power I am using are not without problems. Several authors have stressed the importance of exogenous measures of bargaining power, such as wealth or assets brought into a marriage (Quisumbing and Maluccio, 2003). Other researchers have worked on changes that affect the distribution of power, plausibly exogenous to the power, such

as changes in divorce laws or benefit programs targeted at one member of the couple (Rubalcava et al., 2004). However, these are not available in the 2003 merged dataset that I am analysing. I use gender of the household head and education of both husband and wife as proxies for bargaining power of an individual. In the Philippines, the national representative survey data – the Family Income and Expenditure Survey (FIES) – that I am using defines a household head as the one who manages the finances of the family; in this sense, headship may signal bargaining power. Education can be highly correlated with potential earnings of an individual such that, keeping everything else constant, an individual who is relatively more educated has relatively more power in allocating resources (Thomas, 1994). Therefore, I choose to use educational attainment and gender of the household head as proxies for bargaining power.

Descriptive Analysis

I use the 2003 merged dataset from the Philippines – Labor Force Survey (LFS), Family Income and Expenditure Survey (FIES), and Survey on Overseas Filipinos (SOF). This year has the only officially merged dataset that contains both household and migrant information in the Philippines. SOF contains data on the socio-economic characteristics of the overseas workers who are working or had worked abroad during the six months preceding the survey (April to September). It also has information on the amount of cash transfers (remittances) from April to September and the mode of transfers. It is a nationwide survey conducted every October and is a rider to the October round of the Labor Force Survey (LFS). LFS is conducted quarterly; it contains employment status, age, educational attainment, and income of each household member. FIES is a nationally representative survey conducted every three years, which provides socio-economic information on Philippine households.

I analyse two types of households: households with absent spouse either because the spouse of the head is an OFW (1,038 observations) or the head is divorced, separated, or widowed (287 observations); and households that have both husband and wife present (730 observations). The presence of a spouse may affect how resources are allocated; as noted in the literature, even though women control the resources, husbands can still request money for alcohol and tobacco. In addition, a spouse who is not present may have less or no bargaining power because of imperfect monitoring.

In the case where a spouse is absent because the head is separated or widowed, I focus on female heads to compare the allocation results with those of the de facto female heads whose husbands are working abroad because of number of observations. If these two types of female-headed households behave similarly, then de facto female heads are acting as if their husbands (who are working abroad) do not exist, and the possible reason is imperfect monitoring.

In the second type of household where both husband and wife are present, I consider only male-headed households because the sample size for female-headed households that receive remittances and that have husbands present in the household is too small (8 observations). It would not allow for slope coefficients to vary between male- and female-headed households, and the gender differential analysis would be inaccurate.

Table 1 provides information regarding the dependent variables or the budget shares on each type of good. Starting with households with migrant spouse, male-headed households allocate more to alcohol and tobacco, and to food, than female-headed households (Columns 2 and 3) while female-headed households devote more resources to education and health. Comparing male-headed households with and without the wives present (Columns 2 and 4), I find that the presence of the wife matters in allocation of resources although the difference is

small. Male heads with their spouse abroad prefer to spend more on education, clothing and personal items (both adults' and children's), household operations, and alcohol and tobacco, and less on health. However, both groups have not very dissimilar budget shares for food, durable goods, and non-durable goods.

Another interesting comparison is between households with female heads who are divorced, separated, or widowed and those with de facto female heads. It can be gleaned from Table 1, Columns 3 and 5, that female heads who are divorced, separated, or widowed allocate more to health than de facto female heads. In fact, among all the groups that I am analysing, the female heads who are divorced, separated, or widowed have the highest allocation for health. Perhaps this is because they are the oldest among the four types of heads, on average (about 58 years old) and their households have a higher percentage of women aged 60 and above, which could mean that they seek more medical attention (Table 2, Column 5). Compared to all other households, they spend the least on clothing and personal items. In addition, they spend less on education than de facto female heads; however, they spend slightly more than male heads whose wives are present.

Table 2 depicts the mean and standard deviation of the independent variables. Column 1 shows that households with a spouse working as an OFW are mostly headed by women (62%), which suggests that they are de facto heads whose husbands are working abroad. About half of the household heads are college-educated while more than half of their migrant spouses are college-educated (Column 1). Adult household members (men and women who are 25–59 years old) dominate households with OFW spouse. Female-headed households with migrant spouse received more than twice the remittances received by male-headed households with migrant spouse (Table 2, Columns 2 and 3). This may be attributed to the earning capacity of the migrant

spouse, which can be inferred from his/her educational attainment and type of job. On average, about 70 per cent of the migrant spouses of female heads are college-educated compared to only about 40 per cent of male heads' spouses. In addition, data from SOF (2003) reveals that 72 per cent of the OFW wives of male heads work as labourers and unskilled workers compared to only about 10 per cent of the OFW husbands of female heads. In short, there is a high probability that the absent wives of male-headed households are earning less and therefore remitting less than the absent husbands of female-headed households. Aside from a higher remittance received, female-headed households also have higher household expenditures (about 70 per cent more) than male-headed households (Table 2, Columns 2 and 3).

In terms of household composition, households with a migrant spouse, regardless of the gender of the head, are smaller in size and have fewer elderly members (based on the proportion of males and females aged 60 and above) but more children (based on the proportion of children aged 14 and below, both sexes) compared to the households without a migrant spouse. In addition, household heads whose spouse is the remitter are younger and have relatively more formal education than household heads whose remitter is not their spouse.

Finally, to control for locations I include 17 variables for all the regions in the Philippines. Table 2 shows that all of the households that are analysed come from either the National Capital Region (NCR) or the region closest to the NCR, which is CALABARZON.

Results of Expenditure Share Regressions

Female-headed households with migrant spouse

Table 3 displays the complete GLM regression results (coefficients, standard errors, and marginal effects), after controlling for locations, income, and household composition effects, for

households headed by females whose spouses are working as OFWs abroad. The estimated coefficient of remittances variable, keeping everything else constant, is positive and statistically significant at the 5 per cent level in the education regression (Table 3, Column 5). The marginal effects can be interpreted as the decision of the female heads to increase the expenditure shares on education by almost 1 per cent given a 10-percentage point increase in remittances (Table 3, Column 6). The effect of remittances is positive (0.07) and marginally significant at the 15 per cent level in the health regression. This suggests that female heads devote an additional 1 per cent share to health expenditures (or about 33 per cent of average annual share on health) as remittances increase by 10 per cent (Table 3, Columns 13 and 14). Demographic composition impacts shares for health as well. In particular, male infants, 1- to 6-year old males and females, and elderly females (above 60 years old) affect the expenditure share for health more than females who are 25 to 59 years old (reference category).[4]

The impact of remittances, however, is negative and statistically significant in the alcohol and tobacco regression (Table 3, Columns 21 and 22). It can be gleaned from the marginal effects that even if annual remittances increase by only 1 per cent, de facto female heads already reduce the shares spent on alcohol and tobacco by about 1 per cent (or about 19 per cent of the average annual share on these goods). In terms of the household composition, males of the age groups 25–59 and 60 and above tend to affect the shares for alcohol and tobacco more than females aged 25–59, which suggests that males consume these goods more.

Male-headed households with migrant spouse

Using a 10 per cent increment in remittances, male heads likewise increase the household expenditure shares on education, albeit less than female heads of households, by about 0.5 per cent (Table 3, Column 8), and decrease the shares on food by about 0.1 per cent (Column 3). The

increase in education is equivalent to 8 per cent of its average annual share whereas the decrease on food constitutes only about 0.2 per cent of its mean annual share, which is almost a negligible decrease. Although the effect of remittances is statistically insignificant for alcohol and tobacco, almost all other age groups affect the share on this category less than males aged 25 to 59 years old, which is the reference category.

All households with migrant spouse

To formally test for a gender differential in the allocation and uses of remittances, I pooled the two datasets (male-headed households and female-headed households with migrant spouse), and I use the interaction of gender and remittances to capture the differences. The results in Table 4 (Column 12) suggest that male-headed households have a higher expenditure share on alcohol and tobacco (1%) than female-headed households, given a 10 per cent increment in remittances. This is consistent with the descriptive analysis above, which shows that male-headed households, on average, spend a larger share on alcohol and tobacco than their female counterparts. The gender difference is due to a decrease in the shares on these goods by female-headed households. The adult male (25–59 years old) coefficient indicates that this group contributes more to the share on alcohol and tobacco than adult females of the same age group, which further supports the suggestion that men can make allocation decisions. In addition, the older the head gets, the smaller the share allocated to these goods. Another interesting relationship is between log of per capita expenditure and its square: heads prefer to devote more shares to alcohol and tobacco as expenditures increase, but this positive effect is actually decreasing. Another way to put this is that the relationship between the log of per capita expenditure and the shares on alcohol and tobacco is non-linear and the shares on these goods increase at a decreasing rate. The relationship

may be a reflection of a decreasing marginal utility and household members reaching a satiation point in the consumption of these goods.

To summarise the results of testing the allocation decisions of male- and female-headed households with OFW spouse, they are consistent with the literature that claims that an increase in the income share of women reduces the budget shares on alcohol and tobacco, as in the research of Hodinott and Haddad (1995). One explanation why female heads spend less on alcohol and tobacco while their male counterparts spend more is that their respective spouses, who are relatively earning more as OFWs, cannot effectively monitor how the remittances are allocated. Hence, it is the intrahousehold allocation decisions of the household head, not of the remitter, that maters. This imperfect monitoring explanation will be tested and explored further in later sections. Of course one might argue that it is possible that another reason why female-headed households devote a smaller share to alcohol and tobacco is that their spouses are not present to consume these goods. However, as mentioned above, males who are 25 years old and above, who are physically in the Philippines, tend to consume alcohol and tobacco more.

With regard to the increase in allocations for education in male-headed households (when they are analysed separately as in Table 3), although in the literature it is common to find reports of women or mothers showing this preference, some studies have found, after controlling for bargaining power, that men also prefer education. For example, Quisumbing and Maluccio (2003) found that as men's assets increase, which they used as a measure of bargaining power, the share allocated to education increases. It is interesting to consider whether the educational level of household heads plays a role in their decision process; this can be done, for example, by examining whether better-educated fathers tend to allocate more to education than their less-educated counterparts. I therefore include education as a measure of bargaining power in the next

section to verify whether there exists heterogeneity in preferences among male-headed and among female-headed households.

VI. Effects of Education of Household Head on Intrahousehold Allocation of Remittances

Empirical Model

I now consider the education of the household head as an additional measure of bargaining power of an individual and test the following household expenditure function:

$$c_{ih}=\beta_{0i} + \beta_{1i}r_h + \beta_{2i}m_h + \beta_{3i}e_h + \beta_{4i}r_h*m_h + \beta_{5i}r_h*e_h + \beta_{6i}r_h*e_h*m_h + \beta_{7i}e_h*m_h + \beta_{8i}X_h + u_{ih} \qquad (7)$$

where e_h is a dummy variable for education (equals 1 if the household head finished high school or less); $r_h * e_h$ captures the effect of education of household head on how remittances are used; $e_h * m_h$ reflects the effect of education and gender of household head in intrahousehold allocation; and $r_h * e_h * m_h$ measures the importance of education and gender of household head in allocating remittances. The rest of the variables are similar to those used in equation (6). To verify whether male and female household heads who finished high school (or less) differ in their allocation of remittances, I examine the following and test whether $\beta_{4i} + \beta_{6i} = 0$:

$$\left.\frac{\partial c_{ih}}{\partial r_h}\right|_{e_h=1;m_h=1} - \left.\frac{\partial c_{ih}}{\partial r_h}\right|_{e_h=1;m_h=0} = \beta_{4i} + \beta_{6i} = 0 \qquad (8)$$

In addition, I want to determine whether education as bargaining power, keeping gender constant, affects how remittances are allocated. I test whether college-educated male heads spend remittances differently than high school-educated (or less) male heads, $\beta_{5i} + \beta_{6i} = 0$:

$$\left.\frac{\partial c_{ih}}{\partial r_h}\right|_{e_h=1;m_h=1} - \left.\frac{\partial c_{ih}}{\partial r_h}\right|_{e_h=0;m_h=1} = \beta_{5i} + \beta_{6i} = 0 \quad (9)$$

Results of Expenditure Share Regressions

Female-headed households with migrant spouse

The regression results from Table 5 show that the estimated coefficient of the interaction term between remittances and high school for female-headed households with OFW spouse is positive and statistically significant at the 5 per cent level in the food regression and at the 10 per cent level in the education regression (Columns 1 and 5) and negative and statistically significant at the 10 per cent level in the regressions for clothing and personal items and other expenditures. This suggests that with a 10-percentage point increase in remittances, female heads who at most completed secondary education spend more on food (0.3%) and education (about 2%), and less on clothing and personal items (0.3%) and other goods (0.2%) than female heads who are college-educated.

Male-headed households with migrant spouse

For male-headed households, the estimated coefficient on remittances is statistically significant and negative for the food regression (Table 5, Column 3), which implies that those who have secondary education (or less) decrease the share on food by 0.1 per cent given a 10 per cent increase in remittances. Although the effect of remittances on alcohol and tobacco is marginally significant at a 15 per cent statistical level, it is still quite interesting (Table 5, Column 23). Male heads with secondary education (or less) spend about 0.2 per cent less on alcohol and tobacco as

remittances increase by 10 per cent; this finding remains robust when the wife is present, as will be shown later (Table 5, Column 24). In addition male heads who finish at most high school education allocate more to durable goods (2%) and less to non-durable goods (about 6%) than male heads with college education (Table 5, Columns 27, 28, 31, and 32).

All households with migrant spouse

Following the strategy I used above when I formally tested the gender differential in allocation of remittances, I pooled the two datasets of male- and female-headed households, but this time I include a three-way interaction term between remittances, gender, and education. I performed F-tests to test whether female heads who have secondary education (or less) spend their remittances differently than their male counterparts. The sum of the estimated coefficients of interaction terms for remittances and gender, and remittances, gender, and education is significantly different from zero for the food and the alcohol and tobacco regressions (Table 6, Columns 2 and 12). Male heads who finished at most high school allocate 0.1 per cent less to food but 1 per cent more to alcohol and tobacco than female heads of the same educational level.

To determine if the education of the household head, keeping gender constant, affects the allocation of remittances, an F-test is performed to test whether male heads with secondary education (or less) allocate differently than college-educated male heads. The null hypothesis tests if $\beta_{5i} + \beta_{6i} = 0$ cannot be rejected for durable regression (Table 6, Column 14). The F-test shows that the sum of the estimated coefficients of the two interaction terms (remittances and education, and remittances, gender, and education) is statistically significant at the 10 per cent level for the durable regression. The marginal effects imply that college-educated male heads allocate less to durable goods by about 1 per cent than male heads with less education.

The results in Tables 5 and 6 indicate that including the educational attainment of the head in the analysis provides evidence of heterogeneity in allocation of remittances within the groups of female- and male-headed households, given that the per capita expenditures, household composition, and income effects are controlled for in the regressions. Separating at first male-headed households from female-headed households, the results imply that among the female heads, those with less formal education prefer to allocate more to food and education and less to clothing, personal items, and other expenditures. There also exist differences in allocations among the male heads: those who finished at most secondary education devote more shares to durable goods and less to non-durable goods than male heads who are college-educated. In addition, less educated male heads spend less on food and less on alcohol and tobacco as remittances increase.

The results of pooling the datasets and formally testing the importance of gender and education on allocation of remittances show that, keeping the educational level constant, male heads with less formal education spend more on alcohol and tobacco and less on food than their female counterparts. Keeping gender constant, male heads with less formal education allocate more to durable goods than male heads who are college-educated, which is consistent with the results when male heads are analysed and regressed separately, as above.

These findings suggest that, after controlling for income, household composition effects, and gender of the household head, education, which serves as an imperfect measure for bargaining power, affects intrahousehold allocation.

VII. Robustness Checks

As mentioned above, the presence or absence of a spouse may be pertinent to understanding whether gender and education of the household head matter in intrahousehold allocation of remittances. So far, the analysis shows that male heads with a migrant spouse and female heads with a migrant spouse have different preferences in the allocation of remittances and that it is the gender of the household head, not of the remitter, that matters, which may be attributed to the inability of OFWs to monitor how remittances are spent. There is also heterogeneity in allocation depending on the education of the head, keeping gender constant. In this section, I show the results of two consistency checks to verify the robustness of the findings above.

Male Heads with Present Wife

First, I want to examine whether the allocation of male heads changes with the presence of their wives. This will test whether wives influence the allocation decisions of their husbands who, in this case, have the bargaining power. Table 7 shows that after using similar controls and a similar identification strategy as in Table 3, the impact of remittances on food and education shares when wives are present is consistent with the impact when wives are absent, as presented in Table 3. Husbands reduce their expenditure on food by about 0.1 per cent, which is only about 0.2 per cent of its annual mean (Table 7, Column 2). On the other hand, they increase the shares of expenditures on education by about 1 per cent, which is 14 per cent of its annual average (Table 7, Column 4). While shares on clothing and personal items increase as well, by about 0.1 per cent, with the presence of the wife, this expenditure share does not change with remittances among male-headed households with absent spouse (Table 7, Column 6). One might infer that the presence of the wife contributes to an increase in shares in this expenditure category.

However, this type of good does not distinguish between children's and adults' items. To correct this, I regress shares on children's and adults' clothing and personal items separately and the results indicate that they both increase as remittances increase (Table 7, Columns 19 and 21). The increase in the share allocated to children's clothing and personal items is higher than that on adults' clothing and personal items. If I follow the literature on intrahousehold allocation that claims that women care about the welfare of the children more, which may be expressed in the form of improved health status or increased allocations for education and clothing, then I can conjecture that the wife in this case (because of her proximity) influences the decisions of the husband. What these results may tell us is that the presence of the wife matters in intrahousehold allocation, at least for clothing and personal items of children. This may support the findings of some scholars that wife and husband in the Philippines have equal control over resources, as stated in the review of literature above.

To verify the educational level of husbands who devote more shares to education and to clothing and personal items and less to food, I add educational attainment into the analysis. Table 9 (Columns 1, 3, and 5) shows robust remittance estimates, that is, they are similar to results in Table 7: shares on food and education increase while shares on clothing decrease among males who at most finished secondary education. It can be gleaned that the size, direction, and economic significance of these effects are consistent with those when gender was the only indicator of bargaining power. Interestingly, although the statistical significance is marginal, male heads who finished at most high school and whose wives are present also decrease the share allocated to alcohol and tobacco by about 0.2 per cent, which is 5 per cent of its average share (Column 12). In addition, it appears that college-educated male heads devote about 1 per

cent more to alcohol and tobacco, which is 25 per cent of its annual average, than male heads who finished high school or less.

Female Heads Who Are Divorced, Separated, or Widowed

In the second consistency check, I test whether the allocations of female heads who are divorced, separated, or widowed are consistent with those of the de facto female heads whose husbands are working abroad. These two groups are similar in the sense that there is no spouse in the household and therefore, given that the gender of the heads matters in allocation, the expected allocation of remittances, using the usual controls, should be consistent between these two groups. In fact, in Table 8 (Columns 3, 7, and 11), the remittance estimates in the education, health, and alcohol and tobacco regressions are robust. Female heads increase the allocation for education and health by 1 per cent given a 10-percentage point increase in remittances, while they decrease the share on alcohol and tobacco by 0.5 per cent. In terms of economic significance, the increase in education shares constitutes 20 per cent of its average, for health it is 28 per cent, and for alcohol and tobacco, the decrease is equivalent to about 60 per cent of its average.

I add education to determine whether this affects how remittances are spent. We can glean from Table 10 (Columns 3, 7, and 11) that female heads who finished at most high school are the ones who increase the allocation to education (by about 1%) and health (by about 2%) and decrease the share on alcohol and tobacco (by almost 1%) given a 10 per cent increase in remittances. The change in education share is about 28 per cent of its annual mean, while for health it is about 61 per cent of its average, and for alcohol and tobacco, the decrease is 35 per cent of the annual mean share for these goods. As in the case of the de facto female heads and

male-headed households with wives present, it is the less-educated female heads who value education more.

VIII. Conclusion

The primary goal of this paper is to test whether bargaining power affects how remittances are spent. This paper contributes to the literature on intrahousehold allocation by incorporating the importance of Filipino migrant workers and the remittances that they send to their origin households in the Philippines into the study and taking into account the existence of moral hazard in household head's implementation of OFW spouse's allocation decisions. It is important to know how remittances contribute to the consumption and welfare of household members given that remittances are a major source of income for Philippine households: the average remittances that a Philippine household receives are about 58 per cent of the total household income. In addition, how remittances are spent by Philippine households has macroeconomic implications, given that these cash transfers serve as the second major source of foreign currency after exports.

Philippine households behave differently in terms of intrahousehold allocation of remittances, depending on who has direct control over resources. In the context of migration, the relative bargaining power, proxied by gender and educational attainment of the household head, of an individual affects how remittances are allocated or used. The gender of the remitter does not matter in allocations of remittances in households with migrant spouse because of principal-agent issues, which is consistent with Malone (2007) and Chen (2006) but contrary to the findings of Guzman et al. (2008). Controlling for location, income effects, and household composition, the results support the claims in the existing intrahousehold allocation literature,

with caveats (Hoddinott and Haddad, 1995; Quisumbing and de la Briere, 2000; Quisumbing and Maluccio, 2003; Rubalcava et al., 2004). Women who have relatively more bargaining power, as in the case of female heads with absent spouse (either because they are divorced, separated, widowed, or the spouse is working abroad) allocate more to education and health, and less to alcohol and tobacco. While these findings are consistent with the literature on bargaining power and expenditures allocations, the findings on the male heads are not as common. Although they allocate less to food and more to alcohol and tobacco, they also devote more remittances to education. The presence of the wife alters the expenditure patterns of male heads to some extent: there is an increase in the shares allotted to education and children's clothing while the effect of remittances on expenditures on alcohol and tobacco is only statistically significant when the wife is absent. I can conjecture that imperfect monitoring contributes to the relative bargaining power of the household head who receives the remittances in the case of allocation to alcohol and tobacco, health, and children's clothing. However, the allocation to education is an exception because regardless of the gender of the head and the presence of the spouse, education is important to Filipino families.

Education also contributes to the heterogeneity in expenditure allocations among female- and male-headed households. It appears that heads with less formal education value and allocate more of remittance income to education; this is true for all female-headed households and male-headed households with wives present. One possible reason is that these parents know more about the struggles of having less education and are more motivated to provide education for their children. Another reason is that household heads with more education tend to have more income, on average, and higher expenditures on education, but because education has a

somewhat fixed cost, there is no need for these households to increase expenditures on education.

The increased expenditures on health should be interpreted with caution as this does not automatically translate to an improvement in the health status of individuals. It is possible that the reason why female-headed households spend more on health is that there are more pregnant members, infants, elderly, or even sick members in these households that require medical attention. Although illnesses and percentages of ill people are indirectly controlled by using household composition, it would be better to examine the effects of remittances on children's health outcomes (such as height-weight ratio, mortality rate, or other anthropomorphic measures) based on the relative bargaining power of an individual when such data become available. Nonetheless, it is still a good indicator of concern for the welfare of the household members if there is increased attention to the health of individual members.

Finally, this study shows that the benefits of remittances to households are not just short-term, as when, for example, migrants send familial cash transfers during a natural disaster or when their families experience other negative income shocks (Pajaron, 2012). There are also long-term benefits of remittances: investment in human capital formation through increased shares for education and health allows remittances to have a lasting impact. The possibility that the children of both male- and female-headed households will have a good education and a better future may serve as a reward for the long hours of work and homesickness experienced by temporary overseas contract workers. One way to assist OFWs is for the Philippine government to improve the banking systems and formal channels to ensure a less costly flow of transfers.

Notes

1. Moral hazard is defined as the inability of one party to monitor or observe the actions of the other party. In the case of migration and remittances, OFWs cannot effectively and perfectly monitor the decisions of household heads in terms of how remittances are allocated and spent.
2. That is, equal marginal rate of substitution across household members between any two commodities.
3. Baum (2008) notes that using binomial distribution may be a good choice even if the dependent variable is continuous.
4. The selection of a base or reference category of a categorical variable is based on the number of observations.

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Table 1. Mean (Std. Deviation) of the Dependent Variables

		Spouse is OFW		*Wife Present*	*No Spouse*
	(1)	(2)	(3)	(4)	(5)
Dependent Variables	All households	Male-headed households	Female-headed households	Male-headed households	Female-headed households
Food	0.392	0.427	0.371	0.428	0.408
	(0.123)	(0.124)	(0.117)	(0.129)	(0.134)
Education	0.064	0.059	0.067	0.043	0.049
	(0.078)	(0.083)	(0.075)	(0.069)	(0.078)
Clothing and Personal Effects	0.077	0.077	0.077	0.072	0.069
	(0.040)	(0.042)	(0.040)	(0.035)	(0.041)
Children's Clothing and Personal Effects	0.010	0.008	0.010	0.006	0.006
	(0.013)	(0.013)	(0.012)	(0.009)	(0.012)
Adult's Clothing and Personal Effects	0.068	0.069	0.067	0.066	0.062
	(0.037)	(0.037)	(0.037)	(0.034)	(0.039)
Health	0.019	0.015	0.021	0.028	0.035
	(0.042)	(0.037)	(0.044)	(0.058)	(0.079)
Household Operations	0.026	0.022	0.028	0.018	0.021
	(0.027)	(0.023)	(0.028)	(0.017)	(0.025)
Alcohol and Tobacco	0.013	0.028	0.004	0.020	0.008
	(0.022)	(0.030)	(0.009)	(0.022)	(0.015)
Durable Goods	0.033	0.032	0.033	0.033	0.025
	(0.079)	(0.074)	(0.082)	(0.080)	(0.139)
Non-durable Goods	0.002	0.002	0.003	0.002	0.002
	(0.006)	(0.006)	(0.005)	(0.006)	(0.006)
Other Goods	0.374	0.339	0.396	0.355	0.381
	(0.114)	(0.118)	(0.106)	(0.120)	(0.133)
Number of observations	*1,038*	*394*	*644*	*730*	*287*

Table 2. Mean (Standard Deviation) of the Independent Variables

		Spouse is OFW		*Wife Present*	*No Spouse*
	(1)	(2)	(3)	(4)	(5)
Independent Variables	All households	Male-headed households	Female-headed households	Male-headed households	Female-headed households
Remittances	175,460	87,884	229,039	82,922	109,516
	(187,421)	(86,220)	(211,027)	(100,243)	(110,644)
Household Expenditures	221,156	154,014	262,233	194,329	196,362
	(172,229)	(115,653)	(187,647)	(133,434)	(136,747)
Household size	5.21	4.92	5.38	6.63	5.82
	(1.80)	(1.75)	(1.81)	(2.39)	(2.38)
Age of Head	40.39	41.73	39.56	56.21	57.87
	(8.63)	(9.48)	(7.96)	(10.94)	(16.44)
Female	0.62				
Educational attainment of household head					
Elementary and less	0.119	0.195	0.073	0.438	0.488
High school	0.378	0.490	0.309	0.332	0.265
College	0.501	0.312	0.616	0.230	0.247
Educational attainment of spouse of household head					
Elementary and less	0.061	0.096	0.039	0.448	
High school	0.349	0.503	0.255	0.304	
College	0.589	0.396	0.707	0.248	
Household composition shares					
Male less than 1 year old	0.006	0.003	0.008	0.006	0.008
Male 1–6 years old	0.058	0.048	0.063	0.040	0.034
Male 7–14 years old	0.097	0.100	0.095	0.052	0.075
Male 15–24 years old	0.088	0.099	0.081	0.103	0.087
Male 25–59 years old	0.231	0.242	0.225	0.212	0.160
Male 60 years old and higher	0.010	0.015	0.007	0.072	0.006
Female less than 1 year old	0.004	0.002	0.006	0.007	0.004
Female 1–6 years old	0.057	0.045	0.065	0.035	0.039
Female 7–14 years old	0.088	0.084	0.090	0.047	0.056
Female 15–24 years old	0.107	0.102	0.110	0.113	0.111
Female 25–59 years old	0.235	0.240	0.232	0.256	0.298
Female 60 years old and higher	0.019	0.021	0.017	0.058	0.121
Regions (Arrange from North to South)					
Ilocos Region	0.107	0.165	0.071	0.099	0.087
Cagayan Valley	0.078	0.170	0.022	0.093	0.084
Central Luzon	0.116	0.096	0.127	0.100	0.084
Bicol Region	0.035	0.025	0.040	0.036	0.024
Western Visayas	0.066	0.061	0.068	0.081	0.118
Central Visayas	0.037	0.015	0.050	0.047	0.042
Eastern Visayas	0.018	0.008	0.025	0.023	0.028
Western Mindanao	0.021	0.036	0.012	0.029	0.014
Northern Mindanao	0.026	0.015	0.033	0.029	0.024
Southern Mindanao	0.031	0.053	0.017	0.036	0.028
Central Mindanao	0.025	0.041	0.016	0.041	0.038
National Capital Region	0.177	0.096	0.227	0.107	0.129
Cordillera Administrative Region	0.047	0.076	0.030	0.051	0.063
Autonomous Region of Muslim Mindanao	0.012	0.023	0.005	0.056	0.014
Caraga	0.011	0.008	0.012	0.022	0.031
CALABARZON	0.176	0.089	0.230	0.123	0.167
MIMAROPA	0.018	0.023	0.016	0.029	0.024
Number of observations	*1,038*	*394*	*644*	*730*	*287*

Table 3. Effects of Remittances on Expenditure Shares in Male- and Female-Headed Households with Migrant Spouse (GLM)

	Food				**Education**				**Clothing, Personal Items**				**Health**				**Household Operations**			
	Female		**Male**		**Female**		**Male**		**Female**		**Male**		**Female**		**Male**		**Female**		**Male**	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	Coeff.	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*
Remittance	0.00	0.00	-0.01**	-0.01	0.09**	0.09	0.05*	0.045	-0.02	-0.01	0.01	0.01	0.07+	0.07	0	0.00	0.01	0.01	0.03+	0.03
	(0.01)		(0.01)		(0.04)		(0.03)		(0.01)		(0.01)		(0.05)		(0.04)		(0.03)		(0.02)	
PCE	2.20***	1.39	-1.48*	-0.85	4.21**	3.97	5.07	4.85	0.52	0.47	-0.2	-0.18	-0.24	-0.23	6.92	6.84	3.2	3.11	2.48	2.43
	(0.73)		(0.84)		(1.95)		(3.9)		(1)		(1.03)		(2.92)		(4.52)		(1.97)		(1.89)	
PCE squared	-0.14***	-0.08	0.05	0.03	-0.19**	-0.17	-0.23	-0.21	-0.03	-0.03	0.01	0.00	0.03	0.03	-0.32	-0.32	-0.14	-0.13	-0.11	-0.10
	(0.04)		(0.05)		(0.09)		(0.19)		(0.05)		(0.05)		(0.14)		(0.22)		(0.09)		(0.09)	
Household size	-0.09	-0.06	-0.15*	-0.08	-0.26	-0.24	0.53*	0.50	-0.01	0.00	0.17	0.15	-0.04	-0.03	0.2	0.20	0.46***	0.44	0.08	0.07
	(0.07)		(0.08)		(0.21)		(0.29)		(0.11)		(0.12)		(0.33)		(0.42)		(0.18)		(0.2)	
Age of head	0.01	0.00	-0.01	0.00	0.03***	0.03	0.04***	0.03	-0.01	0.00	0.01	0.00	0.01	0.00	0.02	0.01	-0.01	-0.01	-0.02***	-0.02
	(0.01)		(0.01)		(0.01)		(0.02)		(0.01)		(0.01)		(0.02)		(0.02)		(0.01)		(0.01)	
Educational attainment of household head (*High school omitted for male; College for female*)																				
High school	-0.06	-0.03			-0.11	-0.10			-0.05	-0.04			0.28	0.27			-0.18*	-0.17		
	(0.04)				(0.11)				(0.05)				(0.18)				(0.1)			
College			-0.06	-0.03			-0.24	-0.22			0.01	0.01			0.64**	0.62			0.22*	0.21
			(0.06)				(0.16)				(0.07)				(0.33)				(0.12)	
Educational attainment of spouse of household head (*High school omitted for male; College for female*)																				
High school	0.16***	0.10			-0.22**	-0.21			0.06	0.05			0.22	0.21			-0.37***	-0.35		
	(0.04)				(0.12)				(0.06)				(0.22)				(0.12)			
College			0.04	0.02			0.31*	0.29			0.12	0.11			-0.09	-0.08			-0.07	-0.06
			(0.05)				(0.17)				(0.08)				(0.21)				(0.11)	
Proportion of members (*25-59 Male omitted for male; 25-59 Female omitted for female*)																				
1 > Male	-0.59	-0.37	1.17	0.67	-1.58	-1.49	-2.92	-2.79	-0.78*	-0.71	-2.67***	-2.46	8.16***	8.01	-2.28	-2.25	-2.18**	-2.12	-5.1***	-4.99
	(0.37)		(0.76)		(1.59)		(4.88)		(0.46)		(0.87)		(1.6)		(2.6)		(0.95)		(1.2)	
1–6 Male	-0.04	-0.02	0.55*	0.31	-1.68**	-1.58	-2.22	-2.12	-0.23	-0.21	-0.39	-0.36	2.25*	2.20	1.12	1.11	-1.07*	-1.04	1.03	1.01
	(0.22)		(0.32)		(0.77)		(1.87)		(0.32)		(0.53)		(1.21)		(1.42)		(0.58)		(0.72)	
7–14 Male	0.35*	0.22	0.78***	0.45	0.45	0.42	-0.88	-0.84	-0.24	-0.21	-0.05	-0.04	1.36	1.33	0.28	0.27	-1.72***	-1.67	0.43	0.42
	(0.19)		(0.28)		(0.65)		(1.43)		(0.3)		(0.38)		(1.05)		(1.7)		(0.5)		(0.62)	

Table 3. Effects of Remittances on Expenditure Shares in Male- and Female-Headed Households with Migrant Spouse (GLM)

	Food				**Education**				**Clothing, Personal Items**				**Health**				**Household Operations**			
	Female		**Male**		**Female**		**Male**		**Female**		**Male**		**Female**		**Male**		**Female**		**Male**	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	Coeff.	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*
15–24 Male	-0.21	-0.13	0.32	0.18	1.24**	1.17	0.9	0.85	-0.33	-0.30	0.09	0.08	0.22	0.21	0.55	0.54	-2.27***	-2.21	-0.4	-0.39
	(0.2)		(0.28)		(0.59)		(1.39)		(0.33)		(0.34)		(1.19)		(1.71)		(0.5)		(0.61)	
25–59 Male	0.03	0.02			-1.81*	-1.71			-0.09	-0.08			2.17	2.12			-2.69***	-2.61		
	(0.29)				(1.02)				(0.48)				(1.46)				(0.68)			
> 59 Male	-0.18	-0.11	0.38	0.22	-3.48**	-3.28	-2.5*	-2.39	0.02	0.02	-0.28	-0.26	2.89	2.83	3.7**	3.65	-2.75**	-2.67	2*	1.96
	(0.4)		(0.33)		(1.43)		(1.51)		(0.75)		(0.62)		(2.7)		(1.81)		(1.11)		(1.08)	
1 > Female	0.06	0.03	0.78	0.45	-1.4	-1.32	1.42	1.36	0.35	0.32	0.46	0.42	3.52	3.45	-4.64	-4.59	-0.74	-0.72	-1.29	-1.26
	(0.49)		(1.1)		(1.6)		(3.61)		(0.61)		(1.19)		(2.21)		(5.31)		(1.28)		(1.2)	
1–6 Female	0.27	0.17	0.58*	0.33	-1.32*	-1.24	-2.56	-2.44	-0.51	-0.47	0.45	0.41	2.87**	2.81	1.36	1.34	-1.34**	-1.30	0.64	0.62
	(0.22)		(0.33)		(0.74)		(1.67)		(0.34)		(0.45)		(1.32)		(1.9)		(0.54)		(0.78)	
7–14 Female	0.29	0.18	0.54*	0.31	0.34	0.32	-0.92	-0.87	-0.19	-0.17	-0.27	-0.25	0.48	0.47	-0.88	-0.87	-1.55***	-1.50	0.33	0.32
	(0.19)		(0.28)		(0.61)		(1.46)		(0.32)		(0.4)		(1.1)		(1.66)		(0.49)		(0.66)	
15–24 Female	-0.05	-0.03	0.58*	0.33	1.33**	1.26	1.08	1.02	-0.44	-0.40	-0.22	-0.20	0.9	0.88	-0.57	-0.56	-1.59***	-1.55	-0.07	-0.06
	(0.17)		(0.3)		(0.58)		(1.42)		(0.27)		(0.4)		(1.2)		(1.28)		(0.5)		(0.63)	
25–59 Female			0.72**	0.41			-0.79	-0.75			-0.01	-0.01			3.02	2.98			0.02	0.02
			(0.37)				(1.87)				(0.53)				(2.14)				(0.84)	
> 59 Female	0.23	0.14	0.81**	0.46	1.1	1.04	-1.57	-1.50	-0.89*	-0.81	-0.34	-0.31	2.24*	2.20	0.08	0.07	-1.2	-1.16	-0.3	-0.29
	(0.28)		(0.4)		(0.99)		(1.84)		(0.46)		(0.59)		(1.17)		(2.19)		(0.75)		(0.89)	
Constant	-9.27**		10.13**		-27.1**		-33.4		-4.03		-1.32		-6.39		-44.1*		-20.8*		-18.2*	
	(3.92)		(4.3)		(10.7)		(20.9)		(5.36)		(5.21)		(16.2)		(23.2)		(10.9)		(10)	
Deviance	18.14		12.00		18.14		25.35		18.14		7.98		23.19		11.31		12.43		5.50	
No of obs.	644		394		644		394		644		394		644		394		644		394	

Notes: + marginally significant at 15%, * significant at 10%, ** at 5%, and *** at 1%. Regressions also include dummy variables for the 17 regions in the Philippines (not shown). PCE pertains to per capita expenditure.

Table 3. Effects of Remittances on Expenditure Shares in Male- and Female-Headed Households with Migrant Spouse (GLM)

	Alcohol and Tobacco				**Durable Goods**				**Non-durable Goods**				**Other Expenditures**			
	Female		**Male**		**Female**		**Male**		**Female**		**Male**		**Female**		**Male**	
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
	Coeff.	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*
Remittance	-0.07*	-0.07	-0.02	-0.02	0.04	0.04	0.02	0.02	0.05	0.05	0.06	0.06	-0.01+	-0.01	0.00	0.00
	(0.04)		(0.02)		(0.06)		(0.04)		(0.06)		(0.05)		(0.01)		(0.01)	
PCE	3.71	3.70	2.76	2.69	-6.41***	-6.28	4.11	4.04	2.96	2.94	4.14	4.13	2.5*	1.51	0.87	0.57
	(4.35)		(2.09)		(2.18)		(5.04)		(3.14)		(5.01)		(1.31)		(0.98)	
PCE squared	-0.2	-0.20	-0.15	-0.14	0.36***	0.34	-0.13	-0.12	-0.13	-0.13	-0.2	-0.19	-0.11*	-0.06	-0.03	-0.02
	(0.21)		(0.11)		(0.1)		(0.24)		(0.15)		(0.25)		(0.07)		(0.05)	
Household size	1.44***	1.43	-0.41**	-0.40	0.02	0.02	0.79*	0.78	-0.06	-0.05	0.83	0.82	0.04	0.02	-0.04	-0.02
	(0.29)		(0.2)		(0.37)		(0.44)		(0.29)		(0.58)		(0.08)		(0.09)	
Age of head	0.01	0.01	-0.02***	-0.02	-0.05***	-0.05	-0.04**	-0.04	-0.03*	-0.02	0.03	0.02	-0.01	0.00	0.01	0.00
	(0.02)		(0.01)		(0.02)		(0.02)		(0.02)		(0.03)		(0.01)		(0.01)	
Educational attainment of household head (*High school omitted for male; College for female*)																
High school	0.44**	0.44			0.48**	0.46			0.07	0.07			-0.01	-0.01		
	(0.22)				(0.22)				(0.24)				(0.04)			
College			-0.43***	-0.41			-0.6*	-0.58			-0.27	-0.26			0.16***	0.10
			(0.15)				(0.35)				(0.28)				(0.06)	
Educational attainment of spouse of household head (*High school omitted for male; College for female*)																
High school	0.12	0.12			-0.02	-0.02			0.11	0.11			-0.11***	-0.06		
	(0.21)				(0.24)				(0.24)				(0.04)			
College			-0.21*	-0.20			-0.6**	-0.59			-0.33	-0.33			-0.04	-0.02
			(0.12)				(0.24)				(0.26)				(0.06)	
Proportion of members (*25–59 Male omitted for male; 25–59 Female omitted for female*)																
1 > Male	0.33	0.32	-5.13*	-5.01	2.42	2.37	2.3	2.26	1.43	1.42	-9.67***	-9.65	-0.1	-0.06	0.8	0.53
	(1.88)		(2.65)		(2.11)		(4.14)		(1.77)		(3.38)		(0.5)		(0.92)	
1–6 Male	-1.44	-1.43	-1.04	-1.01	2.54**	2.48	1.2	1.18	0.89	0.88	-0.81	-0.80	-0.07	-0.04	-0.23	-0.15
	(1.41)		(0.65)		(1.23)		(2.07)		(1.43)		(1.7)		(0.23)		(0.38)	
7–14 Male	-1.5	-1.50	-1.11**	-1.07	1.4	1.36	0.19	0.19	-0.27	-0.26	-3.34***	-3.34	-0.35*	-0.21	-0.49	-0.32
	(1.27)		(0.57)		(1.21)		(1.57)		(1.41)		(1.27)		(0.21)		(0.33)	
15–24 Male	-0.12	-0.11	-0.99*	-0.96	2.88**	2.81	0.47	0.46	0.57	0.57	-3.21**	-3.20	-0.13	-0.07	-0.57*	-0.38
	(1.02)		(0.56)		(1.26)		(1.38)		(1.33)		(1.45)		(0.22)		(0.32)	
25–59 Male	4.07***	4.06			2.09	2.05			1.75	1.74			0.2	0.12		
	(1.41)				(1.88)				(1.38)				(0.3)			
> 59 Male	4.55**	4.53	-1.15	-1.12	0.85	0.83	-6.32**	-6.22	2.55	2.54	-8.17**	-8.15	0.83*	0.50	-0.18	-0.12
	(2.29)		(0.93)		(2.76)		(2.78)		(2.23)		(3.21)		(0.45)		(0.42)	
1 > Female	-1.95	-1.94	-4.75*	-4.63	1.13	1.10	-95.0***	-93.69	-0.27	-0.27	2.69	2.68	-0.76*	-0.46	-0.15	-0.09
	(3.01)		(2.6)		(2.71)		(6.11)		(2.05)		(5.17)		(0.44)		(0.66)	
1–6 Female	-0.6	-0.60	-1.91***	-1.85	1.96	1.92	-2.04	-2.00	-0.31	-0.31	-0.41	-0.41	-0.19	-0.11	-0.02	-0.01
	(1.29)		(0.73)		(1.2)		(1.75)		(1.36)		(1.6)		(0.23)		(0.38)	

Table 3. Effects of Remittances on Expenditure Shares in Male- and Female-Headed Households with Migrant Spouse (GLM)

	Alcohol and Tobacco				**Durable Goods**				**Non-durable Goods**				**Other Expenditures**			
	Female		**Male**		**Female**		**Male**		**Female**		**Male**		**Female**		**Male**	
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
	Coeff.	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*
7–14 Female	-0.75	-0.74	-1.42**	-1.38	0.92	0.90	0.6	0.59	-0.02	-0.02	-1.56	-1.55	-0.22	-0.13	-0.14	-0.09
	(1.11)		(0.63)		(1.22)		(1.55)		(1.26)		(1.32)		(0.2)		(0.33)	
15–24 Female	-1	-0.99	-1.7***	-1.65	1.4	1.36	-1.74	-1.71	-0.22	-0.21	-3.74***	-3.73	-0.17	-0.10	-0.4	-0.26
	(1.1)		(0.62)		(1.06)		(1.49)		(1.3)		(1.35)		(0.19)		(0.33)	
25–59 Female		-1.82	-1.36*	-1.32			-1.51	-1.48			-4.37***	-4.36			-0.46	-0.30
			(0.74)				(2.09)				(1.57)				(0.43)	
> 59 Female	-1		-2.26***	-2.20	-2.35	-2.30	-4.19	-4.12	0.93	0.93	-7.36***	-7.35	-0.26	-0.16	0.25	0.16
	(1.1)		(0.77)		(2.04)		(3.25)		(1.53)		(2.67)		(0.3)		(0.46)	
Constant	-26.5		-14.0		25.41**		-31.7		-22.8		-29.0		-14.9**		-6.52	
	(22.7)		(10.6)		(12.0)		(26.7)		(17.1)		(26.1)		(6.89)		(5.05)	
Deviance	5.64		8.00		42.18		29.89		4.08		2.18		23.47		16.67	
No of obs.	644		394		644		394		644		394		644		394	

Notes: + marginally significant at 15%, * significant at 10%, ** at 5%, and *** at 1%. Regressions also include dummy variables for the 17 regions in the Philippines (not shown). PCE pertains to per capita expenditure.

Table 4. Gender Differences in Allocation of Remittances in All Households with Migrant Spouse (GLM)

	Food		**Education**		**Clothing, Personal Items**		**Health**		**Household Operations**		**Alcohol and Tobacco**		**Durable Goods**		**Non-durable Goods**		**Other Expenditures**	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Coeff.	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*
Remittance	0.00	0.00	0.1**	0.09	-0.01	-0.01	0.07+	0.07	0.01	0.01	-0.12***	-0.12	-0.01	-0.01	0.07	0.07	-0.01+	-0.01
	(0.01)		(0.04)		(0.01)		(0.05)		(0.03)		(0.03)		(0.05)		(0.06)		(0.01)	
Remittance*Male	-0.01	-0.01	-0.05	-0.05	0.02	0.02	-0.04	-0.04	-0.01	-0.01	0.11***	0.11	0.06	0.06	-0.03	-0.03	0.01	0.01
	(0.01)		(0.05)		(0.01)		(0.06)		(0.03)		(0.03)		(0.07)		(0.08)		(0.01)	
Male	0.11	0.07	0.52	0.49	-0.25	-0.23	0.18	0.18	0.19	0.19	0.31	0.30	-0.39	-0.38	0.09	0.09	-0.16	-0.10
	(0.12)		(0.56)		(0.17)		(0.68)		(0.37)		(0.36)		(0.78)		(0.92)		(0.13)	
PCE	0.51	0.31	4.38***	4.15	0.42	0.39	1.71	1.68	2.73**	2.67	3.04*	3.02	-2.94	-2.87	2.61	2.60	1.95**	1.23
	(0.51)		(1.56)		(0.69)		(2.27)		(1.23)		(1.8)		(2.05)		(2.39)		(0.94)	
PCE squared	-0.05**	-0.03	-0.19***	-0.18	-0.02	-0.02	-0.07	-0.07	-0.12**	-0.11	-0.16*	-0.16	0.2**	0.19	-0.12	-0.12	-0.08*	-0.05
	(0.02)		(0.07)		(0.03)		(0.11)		(0.06)		(0.09)		(0.09)		(0.11)		(0.05)	
Household size	-0.11**	-0.07	0.05	0.05	0.05	0.05	0.01	0.01	0.27**	0.26	0	0.00	0.4	0.39	0.22	0.22	0.03	0.02
	(0.05)		(0.17)		(0.07)		(0.25)		(0.14)		(0.17)		(0.25)		(0.32)		(0.05)	
Age of head	0.00	0.00	0.03***	0.03	0.00	0.00	0.01	0.01	-0.01***	-0.01	-0.01**	-0.01	-0.04***	-0.04	-0.01	-0.01	0	0.00
	(0.00)		(0.01)		(0.00)		(0.01)		(0)		(0.01)		(0.01)		(0.01)		(0)	
Educational attainment of household head (*College omitted*)																		
High school	-0.02	-0.01	0	0.00	-0.03	-0.03	0.05	0.05	-0.17**	-0.16	0.53***	0.53	0.46**	0.45	0.06	0.06	-0.05	-0.03
	(0.03)		(0.09)		(0.04)		(0.16)		(0.08)		(0.12)		(0.19)		(0.2)		(0.03)	
Educational attainment of spouse of household head (*College omitted*)																		
High school	0.08***	0.05	-0.21**	-0.20	-0.01	-0.01	0.11	0.11	-0.18**	-0.18	0.17	0.17	0.21	0.20	0.15	0.15	-0.05	-0.03
	(0.03)		(0.09)		(0.04)		(0.16)		(0.08)		(0.1)		(0.17)		(0.17)		(0.03)	
Proportion of members (*25–59 Female omitted*)																		
25–59 Male	-0.26	-0.16	-0.65	-0.61	-0.09	-0.08	0.39	0.39	-1.72***	-1.68	2.17***	2.16	1.82	1.78	2.14*	2.13	0.27	0.17
	(0.23)		(0.97)		(0.34)		(1.39)		(0.53)		(0.72)		(1.41)		(1.13)		(0.25)	
Constant	0.00		-29.4***		-3.81		-15.5		-18.6***		-18.5**		5.02		-22.1*		-12.1**	
	(2.74)		(8.55)		(3.68)		(12.2)		(6.74)		(9.26)		(11.1)		(12.8)		(4.91)	
Deviance	31.88		64.58		19.85		37.52		19.01		15.09		79.96		6.74		41.96	
No of obs.	1,038		1,038		1,038		1,038		1,038		1,038		1,038		1,038		1,038	

Notes: + marginally significant at 15%, * significant at 10%, ** at 5%, and *** at 1%. Regressions also include dummy variables for the 17 regions in the Philippines (not shown) and for 10 demographic groups (not shown). PCE pertains to per capita expenditure.

Table 5. Effects of Remittances and Education of Household Head on Expenditure Shares in Male- and Female-Headed Households with Migrant Spouse (GLM)

	Food				**Education**				**Clothing, Personal Items**				**Health**				**Household Operations**	
	Female		**Male**		**Female**		**Male**		**Female**		**Male**		**Female**		**Male**		**Female**	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Coeff.	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*	*Coeff.*	*∂lny/∂x*
Remittance	-0.02+	-0.01	-0.01*	-0.01	0.06+	0.00	0.05+	0.05	0.00	0.00	0.01	0.01	0.07	0.07	0.01	0.01	0.01	0.01
	(0.01)		(0.01)		(0.04)		(0.03)		(0.01)		(0.01)		(0.07)		(0.04)		(0.04)	
Remittance*College			-0.01	-0.01			-0.01	-0.01			0.00	0.00			-0.02	-0.02		
			(0.02)				(0.06)				(0.02)				(0.06)			
Remittance*High school	0.03**	0.02			0.16*	0.16			-0.03*	-0.03			0.00	0.00			-0.02	-0.02
	(0.01)				(0.09)				(0.02)				(0.1)				(0.04)	
PCE	2.02***	1.28	-1.46*	-0.84	3.3	3.12	5.05	4.84	0.66	0.61	-0.2	-0.18	-0.24	-0.23	6.97	6.89	3.28*	3.20
	(0.73)		(0.83)		(2.02)		(3.87)		(0.99)		(1.03)		(2.98)		(4.5)		(1.98)	
PCE squared	-0.12***	-0.08	0.04	0.02	-0.14	-0.13	-0.22	-0.21	-0.04	-0.03	0.00	0.00	0.03	0.03	-0.32	-0.32	-0.14	-0.14
	(0.03)		(0.04)		(0.09)		(0.19)		(0.05)		(0.05)		(0.13)		(0.22)		(0.09)	
Household size	-0.08	-0.05	-0.14*	-0.08	-0.27	-0.25	0.52*	0.50	-0.01	-0.01	0.16	0.15	-0.03	-0.03	0.2	0.20	0.45***	0.44
	(0.06)		(0.07)		(0.21)		(0.29)		(0.11)		(0.11)		(0.32)		(0.41)		(0.17)	
Age of head	0.00	0.00	0.00	0.00	0.03***	0.03	0.03***	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	-0.01	-0.01
	(0.00)		(0.00)		(0.01)		(0.01)		(0.00)		(0.00)		(0.01)		(0.01)		(0.01)	
Educational attainment of household head (*High school omitted for male; college for female*)																		
High school	-0.44**	-0.28			-2.1*	-1.98			0.32	0.30			0.26	0.25			0.03	0.03
	(0.17)				(1.11)				(0.22)				(1.25)				(0.51)	
College			0.05	0.03			-0.12	-0.12			0.01	0.01			0.9	0.89		
			(0.17)				(0.68)				(0.26)				(0.69)			
Educational attainment of spouse of household head *(High school omitted for male; college for female)*																		
High school	0.16***	0.10			-0.2*	-0.19			0.05	0.05			0.22	0.21			-0.36***	-0.35
	(0.04)				(0.11)				(0.05)				(0.22)				(0.11)	
College			0.04	0.02			0.3*	0.29			0.11	0.11			-0.08	-0.08		
			(0.05)				(0.16)				(0.07)				(0.21)			
Constant	-8.13**		10.04**		-23.6**		-33.4		-5.09		-1.32		-4.20		-44.5*		-24.0**	
	(3.97)		(4.25)		(11.1)		(20.8)		(5.28)		(5.22)		(16.6)		(23.1)		(10.9)	
Deviance	18.03		11.99		18.03		25.34		11.18		7.98		23.19		11.31		12.43	
No of obs.	644		394		644		394		644		394		644		394		644	

Notes: + marginally significant at 15%, * significant at 10%, ** at 5%, and *** at 1%. Regressions also include dummy variables for the 17 regions in the Philippines (not shown) and for 11 demographic groups (not shown). PCE pertains to per capita expenditure.

Table 5. Effects of Remittances and Education of Household Head on Expenditure Shares in Male- and Female-Headed Households with Migrant Spouse (GLM)

	Household Operations		**Alcohol and Tobacco**				**Durable Goods**				**Non-durable Goods**				**Other Expenditures**			
	Male		**Female**		**Male**		**Female**		**Male**		**Female**		**Male**		**Female**		**Male**	
	(19) *Coeff.*	(20) $\frac{\partial lny}{\partial x}$	(21) *Coeff.*	(22) $\frac{\partial lny}{\partial x}$	(23) *Coeff.*	(24) $\frac{\partial lny}{\partial x}$	(25) *Coeff.*	(26) $\frac{\partial lny}{\partial x}$	(27) *Coeff.*	(28) $\frac{\partial lny}{\partial x}$	(29) *Coeff.*	(30) $\frac{\partial lny}{\partial x}$	(31) *Coeff.*	(32) $\frac{\partial lny}{\partial x}$	(33) *Coeff.*	(34) $\frac{\partial lny}{\partial x}$	(35) *Coeff.*	(36) $\frac{\partial lny}{\partial x}$
Remittance	0.01	0.01	-0.07+	-0.07	-0.03+	-0.02	0.06	0.059	0.1+	0.10	0.06	0.06	0.02	0.02	0.00	0.00	0.00	0.00
	(0.02)		(0.04)		(0.02)		(0.08)		(0.07)		(0.08)		(0.04)		(0.01)		(0.01)	
Remittance*College	0.09	0.09			0.05	0.05			-0.22**	-0.22			0.56**	0.56			0.00	0.00
	(0.07)				(0.05)				(0.09)				(0.25)				(0.02)	
Remittance*High school			-0.01	-0.01			-0.04	-0.038			-0.03	-0.03			-0.02*	-0.01		
			(0.06)				(0.11)				(0.1)				(0.01)			
PCE	2.43	2.38	3.79	3.78	2.71	2.65	-6.25***	-6.124	3.55	3.51	3.05	3.04	6.65	6.64	2.63**	1.59	0.86	0.57
	(2.1)		(4.33)		(2.07)		(2.2)		(5.11)		(3.13)		(5.2)		(1.31)		(0.98)	
PCE squared	-0.10	-0.10	-0.2	-0.20	-0.14	-0.14	0.34***	0.337	-0.09	-0.09	-0.13	-0.13	-0.33	-0.33	-0.11*	-0.07	-0.03	-0.02
	(0.1)		(0.21)		(0.1)		(0.1)		(0.24)		(0.14)		(0.25)		(0.06)		(0.05)	
Household size	0.09	0.09	1.43***	1.43	-0.41**	-0.40	0.01	0.013	0.83*	0.82	-0.05	-0.05	0.96*	0.96	0.03	0.02	-0.03	-0.02
	(0.2)		(0.29)		(0.19)		(0.36)		(0.43)		(0.29)		(0.58)		(0.07)		(0.09)	
Age of head	-0.02***	-0.02	0.01	0.01	-0.02***	-0.02	-0.05***	-0.049	-0.04**	-0.04	-0.02*	-0.02	0	0.00	0.00	0.00	0.00	0.00
	(0.01)		(0.01)		(0.01)		(0.01)		(0.02)		(0.01)		(0.02)		(0.00)		(0.00)	
Educational attainment of household head (*High school omitted for male; college for female*)																		
High school			0.56	0.56			0.94	0.924			0.38	0.38			0.28*	0.17		
			(0.74)				(1.36)				(1.18)				(0.15)			
College	-0.76	-0.75			-0.94	-0.92			1.83*	1.81			-6.58**	-6.57			0.17	0.11
	(0.76)				(0.6)				(1.09)				(2.96)				(0.17)	
Educational attainment of spouse of household head *(High school omitted for male; college for female)*																		
High school			0.12	0.12			-0.02	-0.023			0.1	0.10			-0.11***	-0.07		
			(0.2)				(0.23)				(0.23)				(0.04)			
College	-0.07	-0.07			-0.22*	-0.21			-0.6**	-0.59			-0.35	-0.35			-0.04	-0.02
	(0.11)				(0.11)				(0.24)				(0.25)				(0.06)	
Constant	-17.6		-22.9		-13.7		26.45**		-29.5		-21.7		-39.9		-15.6**		-6.53	
	(10.9)		(22.6)		(10.6)		(12.2)		(27)		(16.9)		(26.6)		(6.93)		(5.08)	
Deviance	11.31		5.64		11.31		42.17		11.31		4.08		11.31		23.41		11.31	
No of obs.	394		644		394		644		394		644		394		644		394	

Notes: + marginally significant at 15%, * significant at 10%, ** at 5%, and *** at 1%. Regressions also include dummy variables for the 17 regions in the Philippines (not shown) and for 11 demographic groups (not shown). PCE pertains to per capita expenditure.

Table 6. Effects of Remittances, Gender, and Education of Household Head on Expenditure Shares in All Households with Migrant Spouse (GLM)

	Food		**Education**		**Clothing, Personal Items**		**Health**		**Household Operations**		**Alcohol and Tobacco**		**Durable Goods**		**Non-durable Goods**		**Other Expenditures**	
	(1) *Coeff.*	(2) *∂lny/∂x*	(3) *Coeff.*	(4) *∂lny/∂x*	(5) *Coeff.*	(6) *∂lny/∂x*	(7) *Coeff.*	(8) *∂lny/∂x*	(9) *Coeff.*	(10) *∂lny/∂x*	(11) *Coeff.*	(12) *∂lny/∂x*	(13) *Coeff.*	(14) *∂lny/∂x*	(15) *Coeff.*	(16) *∂lny/∂x*	(17) *Coeff.*	(18) *∂lny/∂x*
Remittance	-0.01	0.00	0.08*	0.07	-0.01	-0.01	0.09	0.09	0.02	0.02	-0.1***	-0.10	-0.05	-0.05	0.13	0.13	-0.01	0.00
	(0.01)		(0.04)		(0.01)		(0.06)		(0.04)		(0.03)		(0.06)		(0.09)		(0.01)	
Remittance*Male	-0.02*	-0.01	-0.07*	-0.07	0.03	0.02	-0.03	-0.02	0.00	0.00	0.12***	0.12	0.02	0.02	0.00	0.00	0.02	0.01
	(0.01)		(0.04)		(0.02)		(0.06)		(0.03)		(0.04)		(0.07)		(0.08)		(0.01)	
Remittance*High school	0.02	0.01	0.04	0.04	-0.02	-0.02	-0.01	-0.01	-0.03	-0.02	-0.03	-0.03	0.14*	0.14	-0.11	-0.11	-0.01	0.00
	(0.01)		(0.04)		(0.02)		(0.06)		(0.03)		(0.03)		(0.07)		(0.09)		(0.01)	
Remittance *Male	0.00	0.00	0.02	0.02	0	0.00	-0.05*	-0.05	0.01	0.01	-0.01	-0.01	0.01	0.01	0.00	0.00	-0.01	0.00
*High school	(0)		(0.01)		(0.01)		(0.03)		(0.01)		(0.02)		(0.03)		(0.04)		(0.01)	
Male	0.18	0.11	0.69	0.65	-0.32*	-0.29	0.28	0.27	0.06	0.05	0.24	0.24	0.1	0.10	-0.34	-0.33	-0.19*	-0.12
	(0.11)		(0.48)		(0.18)		(0.63)		(0.35)		(0.38)		(0.87)		(0.82)		(0.11)	
PCE	0.48	0.29	4.36***	4.13	0.46	0.43	1.52	1.49	2.82**	2.75	2.98*	2.96	-3.43*	-3.36	2.90	2.90	1.95**	1.23
	(0.51)		(1.57)		(0.69)		(2.31)		(1.24)		(1.79)		(2.05)		(2.4)		(0.94)	
PCE squared	-0.05**	-0.03	-0.19***	-0.18	-0.03	-0.02	-0.06	-0.06	-0.12**	-0.12	-0.16*	-0.16	0.22**	0.22	-0.13	-0.13	-0.08*	-0.05
	(0.02)		(0.07)		(0.03)		(0.11)		(0.06)		(0.09)		(0.09)		(0.11)		(0.05)	
Household size	-0.11**	-0.07	0.06	0.06	0.05	0.05	-0.01	-0.01	0.28**	0.27	-0.01	-0.01	0.36	0.35	0.21	0.21	0.02	0.01
	(0.05)		(0.17)		(0.08)		(0.25)		(0.14)		(0.17)		(0.25)		(0.33)		(0.05)	
Age of head	0.00	0.00	0.03***	0.03	0.00	0.00	0.01	0.01	-0.01***	-0.01	-0.01**	-0.01	-0.04***	-0.03	-0.01	-0.01	0.00	0.00
	(0)		(0.01)		(0.00)		(0.01)		(0)		(0.01)		(0.01)		(0.01)		(0)	
Educational attainment of household head (*College omitted*)																		
High school	-0.22*	-0.13	-0.54	-0.52	0.16	0.15	0.28	0.27	0.09	0.08	1**	0.99	-1.22	-1.20	1.37	1.37	0.07	0.04
	(0.13)		(0.47)		(0.19)		(0.76)		(0.37)		(0.4)		(0.89)		(1.03)		(0.11)	
Educational attainment of spouse of household head (*College omitted*)																		
High school	0.08***	0.05	-0.22**	-0.21	-0.01	-0.01	0.13	0.13	-0.19**	-0.18	0.17*	0.17	0.22	0.22	0.15	0.15	-0.04	-0.03
	(0.03)		(0.09)		(0.04)		(0.15)		(0.08)		(0.1)		(0.17)		(0.17)		(0.03)	
Constant	0.29		-29.1***		-4.11		-14.7		-19.1***		-18.6**		8.33		-24.2*		-12.1**	
	(2.73)		(8.6)		(3.68)		(12.6)		(6.83)		(9.15)		(11.1)		(13.0)		(4.92)	
No of obs.	1,038		1,038		1,038		1,038		1,038		1,038		1,038		1,038		1,038	
Remittance allocation of female head with high school = Remittance allocation of male head with high school																		
F-statistics	3.12		1.43		2.58		1.56		0.07		10.32		0.11		0		0.79	
p-value	0.08		0.23		0.11		0.21		0.79		0.00		0.74		0.97		0.37	
Coefficient		-0.01*		-0.04		0.02+		-0.07		0.00		0.11***		0.02		0.00		0.00
Remittance allocation of male head with high school = Remittance allocation of male head with college																		
F-statistics	2.39		2.03		0.96		0.66		0.16		1.66		3.51		1.07		1.88	
p-value	0.12		0.15		0.33		0.42		0.69		0.20		0.06		0.30		0.17	
Coefficient		0.01+		0.05		-0.01		-0.05		-0.01		-0.04		0.14*		-0.11		-0.00

Notes: + marginally significant at 15%, * significant at 10%, ** at 5%, and *** at 1%. Regressions also include dummy variables for the 17 regions in the Philippines (not shown) and for 11 demographic groups (not shown). PCE pertains to per capita expenditure.

Table 7. Effects of Remittances on Expenditure Shares in Male-headed Households with Wife Present (GLM)

	Food		**Education**		**Clothing, Personal Items**		**Health**		**Household Operations**		**Alcohol and Tobacco**		**Durable Goods**		**Non-durable Goods**		**Other Expenditures**	
	(1) *Coeff.*	(2) $\frac{\partial lny}{\partial x}$	(3) *Coeff.*	(4) $\frac{\partial lny}{\partial x}$	(5) *Coeff.*	(6) $\frac{\partial lny}{\partial x}$	(7) *Coeff.*	(8) $\frac{\partial lny}{\partial x}$	(9) *Coeff.*	(10) $\frac{\partial lny}{\partial x}$	(11) *Coeff.*	(12) $\frac{\partial lny}{\partial x}$	(13) *Coeff.*	(14) $\frac{\partial lny}{\partial x}$	(15) *Coeff.*	(16) $\frac{\partial lny}{\partial x}$	(17) *Coeff.*	(18) $\frac{\partial lny}{\partial x}$
Remittance	-0.01***	-0.01	0.06***	0.06	0.01***	0.01	0.01	0.01	0.01	0.01	-0.01	-0.01	0.03	0.03	0.00	0.00	-0.01	0.00
	(0.00)		(0.02)		(0.01)		(0.02)		(0.01)		(0.01)		(0.03)		(0.02)		(0.00)	
PCE	-0.92*	-0.53	5.28**	5.10	2.89***	2.69	6.27**	6.13	-1.37	-1.35	3.06*	3.01	1.07	1.05	4.69	4.68	0.85	0.55
	(0.55)		(2.31)		(0.69)		(2.69)		(1.13)		(1.67)		(5.03)		(4.88)		(0.81)	
PCE squared	0.01	0.01	-0.23**	-0.22	-0.14***	-0.13	-0.26**	-0.25	0.08	0.08	-0.18**	-0.18	0.00	0.00	-0.22	-0.22	-0.03	-0.02
	(0.03)		(0.11)		(0.03)		(0.13)		(0.06)		(0.08)		(0.24)		(0.24)		(0.04)	
Household size	-0.15***	-0.08	0.68***	0.66	0.00	0.00	-0.17	-0.17	-0.13	-0.13	-0.03	-0.03	0.21	0.21	-0.24	-0.24	0.06	0.04
	(0.06)		(0.24)		(0.07)		(0.29)		(0.15)		(0.16)		(0.40)		(0.29)		(0.07)	
Age of head	0.00	0.00	0.01	0.01	0.00	0.00	0.02*	0.02	0.01***	0.01	-0.01	-0.01	-0.01	-0.01	-0.03**	-0.03	0.00	0.00
	(0.00)		(0.01)		(0.00)		(0.01)		(0.00)		(0.01)		(0.02)		(0.01)		(0.00)	
Educational attainment of household head (*High school omitted*)																		
College	-0.06	-0.03	0.12	0.11	0.02	0.02	0.06	0.05	0.14	0.13	-0.28**	-0.27	-0.92***	-0.90	-0.15	-0.15	0.18***	0.11
	(0.04)		(0.17)		(0.05)		(0.18)		(0.11)		(0.12)		(0.29)		(0.36)		(0.05)	
Educational attainment of spouse of household head (*High school omitted*)																		
College	0.05	0.03	0.11	0.10	0.02	0.02	-0.72***	-0.70	0.25**	0.25	-0.01	-0.01	0.31	0.30	-0.23	-0.23	-0.06	-0.04
	(0.04)		(0.17)		(0.06)		(0.18)		(0.11)		(0.12)		(0.24)		(0.26)		(0.04)	
Constant	7.80***		-35.4***		-17.3***		-42.8***		0.58		-15.6*		-13.8		-29.2		-6.28	
	(2.81)		(11.9)		(3.52)		(14.0)		(5.80)		(8.45)		(26.1)		(24.5)		(4.11)	
Deviance	22.44		49.71		11.60		36.60		6.98		14.07		66.76		4.30		30.77	
No of obs.	730		730		730		730		730		730		730		730		730	
	730		730															

Notes: + marginally significant at 15%, * significant at 10%, ** at 5%, and *** at 1%. Regressions also include dummy variables for the 17 regions in the Philippines (not shown) and for 11 demographic groups (not shown). PCE pertains to per capita expenditure.

Table 7. Effects of Remittances on Expenditure Shares in Male-headed Households with Wife Present (GLM)

	Children's Clothing		**Adult's Clothing**	
	(19) *Coeff.*	(20) $\frac{\partial lny}{\partial x}$	(21) *Coeff.*	(22) $\frac{\partial lny}{\partial x}$
Remittance	0.03**	0.03	0.01**	0.01
	(0.01)		(0.01)	
PCE	7.06***	7.03	2.4***	2.24
	(2.05)		(0.72)	
PCE squared	-0.34***	-0.33	-0.12***	-0.11
	(0.1)		(0.04)	
Household size	0.37*	0.37	-0.01	-0.01
	(0.21)		(0.07)	
Age of head	0.00	0.00	0.00	0.00
	(0.01)		(0.00)	
Educational attainment of household head (*High school omitted*)				
College	0.12	0.12	0.02	0.02
	(0.15)		(0.06)	
Educational attainment of spouse of household head (*High school omitted*)				
College	-0.24	-0.24	0.04	0.04
	(0.15)		(0.06)	
Constant	-43.2***		-14.7***	
	(10.5)		(3.72)	
Deviance	5.09		11.28	
No of obs.	730		730	

Notes: + marginally significant at 15%, * significant at 10%, ** at 5%, and *** at 1%. Regressions also include dummy variables for the 17 regions in the Philippines (not shown) and for 11 demographic groups (not shown). PCE pertains to per capita expenditure.

Table 8. Effects of Remittances on Expenditure Shares in Households Headed by Females who are Divorced, Separated, or Widowed (GLM)

	Food		**Education**		**Clothing, Personal Items**		**Health**		**Household Operations**		**Alcohol and Tobacco**		**Durable Goods**		**Non-durable Goods**		**Other Expenditures**	
	(1) *Coeff.*	(2) $\frac{\partial lny}{\partial x}$	(3) *Coeff.*	(4) $\frac{\partial lny}{\partial x}$	(5) *Coeff.*	(6) $\frac{\partial lny}{\partial x}$	(7) *Coeff.*	(8) $\frac{\partial lny}{\partial x}$	(9) *Coeff.*	(10) $\frac{\partial lny}{\partial x}$	(11) *Coeff.*	(12) $\frac{\partial lny}{\partial x}$	(13) *Coeff.*	(14) $\frac{\partial lny}{\partial x}$	(15) *Coeff.*	(16) $\frac{\partial lny}{\partial x}$	(17) *Coeff.*	(18) $\frac{\partial lny}{\partial x}$
Remittance	0.00	0.00	0.10**	0.10	0.01+	0.01	0.10**	0.10	-0.02	-0.02	-0.05**	-0.05	-0.01	-0.01	0.08+	0.08	-0.02+	-0.01
	(0.01)		(0.04)		(0.01)		(0.05)		(0.02)		(0.02)		(0.06)		(0.05)		(0.01)	
PCE	-0.42	-0.25	8.08**	7.84	1.46	1.36	4.02	3.92	-0.08	-0.07	5.32	5.29	-5.70	-5.64	1.79	1.78	1.82	1.13
	(0.97)		(3.76)		(1.16)		(5.02)		(1.81)		(3.52)		(5.46)		(4.79)		(1.32)	
PCE squared	-0.01	-0.01	-0.37**	-0.36	-0.08	-0.07	-0.16	-0.16	0.02	0.02	-0.27	-0.27	0.36	0.35	-0.08	-0.08	-0.07	-0.05
	(0.05)		(0.18)		(0.06)		(0.24)		(0.09)		(0.17)		(0.26)		(0.23)		(0.07)	
Household size	-0.13	-0.08	0.96***	0.93	0.05	0.05	0.65*	0.64	0.53**	0.52	0.29	0.29	-0.12	-0.12	1.09**	1.09	-0.22**	-0.13
	(0.08)		(0.26)		(0.13)		(0.35)		(0.26)		(0.31)		(0.55)		(0.51)		(0.1)	
Age of head	0.00	0.00	-0.01	-0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.02	0.02	-0.02	-0.02	0.00	0.00
	(0.00)		(0.01)		(0.00)		(0.01)		(0.01)		(0.01)		(0.01)		(0.01)		(0.00)	
Educational attainment of household head (*High school omitted*)																		
College	0.01	0.00	0.26	0.25	0.08	0.08	0.01	0.01	0.12	0.12	-0.43*	-0.43	-0.95**	-0.94	-0.33	-0.33	0.03	0.02
	(0.06)		(0.24)		(0.09)		(0.25)		(0.20)		(0.25)		(0.39)		(0.40)		(0.09)	
Constant	4.62		-50.6***		-9.38		-29.1		-6.28		-30.9*		16.08		-14.2		-10.4	
	(4.95)		(19.2)		(5.92)		(26.5)		(9.33)		(17.8)		(28.1)		(24.1)		(6.65)	
Deviance	11.00		15.97		5.45		20.71		4.62		3.68		17.24		1.54		16.90	
No of obs.	287		287		287		287		287		287		287		287		287	

Notes: + marginally significant at 15%, * significant at 10%, ** at 5%, and *** at 1%. Regressions also include dummy variables for the 17 regions in the Philippines (not shown) and for 11 demographic groups (not shown). PCE pertains to per capita expenditure.

Table 9. Effects of Remittances and Education on Expenditure Shares in Male-headed Households with Wife Present (GLM)

	Food		**Education**		**Clothing, Personal Items**		**Health**		**Household Operations**		**Alcohol and Tobacco**		**Durable Goods**		**Non-durable Goods**		**Other Expenditures**	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Coeff.	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*	*Coeff.*	*∂lny* / *∂x*
Remittance	-0.01**	-0.01	0.07***	0.07	0.02***	0.01	0.00	0.00	0.01	0.01	-0.02+	-0.02	0.03	0.03	-0.01	-0.01	0.00	0.00
	(0.00)		(0.02)		(0.01)		(0.02)		(0.01)		(0.01)		(0.03)		(0.02)		(0.01)	
Remittance*College	0.01	0.00	-0.02	-0.02	-0.01	-0.01	0.03	0.03	0.01	0.01	0.05**	0.05	0.02	0.02	0.05	0.05	-0.02*	-0.01
	(0.01)		(0.04)		(0.01)		(0.04)		(0.03)		(0.02)		(0.05)		(0.04)		(0.01)	
PCE	-0.87	-0.50	5.17**	4.99	2.85***	2.65	6.51**	6.37	-1.29	-1.27	3.29**	3.23	1.20	1.17	4.95	4.94	0.72	0.47
	(0.55)		(2.33)		(0.68)		(2.66)		(1.12)		(1.67)		(5.15)		(4.97)		(0.82)	
PCE squared	0.01	0.01	-0.22*	-0.21	-0.14***	-0.13	-0.27**	-0.26	0.08	0.08	-0.19**	-0.19	-0.01	-0.01	-0.23	-0.23	-0.02	-0.01
	(0.03)		(0.11)		(0.03)		(0.13)		(0.05)		(0.08)		(0.25)		(0.25)		(0.04)	
Household size	-0.15***	-0.08	0.68***	0.66	0.00	0.00	-0.17	-0.17	-0.13	-0.13	-0.02	-0.02	0.22	0.22	-0.23	-0.23	0.06	0.04
	(0.06)		(0.24)		(0.07)		(0.29)		(0.16)		(0.16)		(0.40)		(0.29)		(0.07)	
Age of head	0.00	0.00	0.01	0.01	0.00	0.00	0.02*	0.02	0.01***	0.01	-0.01	-0.01	-0.01	-0.01	-0.02**	-0.02	0.00	0.00
	(0.00)		(0.01)		(0.00)		(0.01)		(0.00)		(0.01)		(0.02)		(0.01)		(0.00)	
Educational attainment of household head (*High school omitted*)																		
College	-0.12	-0.07	0.29	0.28	0.08	0.08	-0.26	-0.25	0.01	0.01	-0.78***	-0.77	-1.13**	-1.10	-0.67	-0.67	0.34***	0.22
	(0.08)		(0.48)		(0.11)		(0.45)		(0.30)		(0.24)		(0.51)		(0.48)		(0.11)	
Educational attainment of spouse of household head (*High school omitted*)																		
College	0.05	0.03	0.10	0.10	0.02	0.02	-0.71***	-0.69	0.25**	0.25	0.00	0.00	0.31	0.30	-0.22	-0.22	-0.07	-0.04
	(0.04)		(0.17)		(0.06)		(0.18)		(0.10)		(0.12)		(0.24)		(0.25)		(0.04)	
Constant	7.58***		-34.9***		-17.1***		-44.0***		0.16		-16.7**		-14.5		-30.5		-5.66	
	(2.82)		(12.0)		(3.48)		(13.8)		(5.77)		(8.45)		(26.7)		(24.9)		(4.15)	
Deviance	22.42		49.69		11.59		36.57		6.97		14.01				4.29		30.66	
No of obs.	730		730		730		730		730		730				730		730	

Notes: + marginally significant at 15%, * significant at 10%, ** at 5%, and *** at 1%. Regressions also include dummy variables for the 17 regions in the Philippines (not shown). PCE pertains to per capita expenditure.

Table 10. Effects of Remittances and Education on Expenditure Shares in in Households Headed by Females who are Divorced, Separated, or Widowed (GLM)

	Food		**Education**		**Clothing, Personal**		**Health**		**Household Operations**		**Alcohol and Tobacco**		**Durable Goods**		**Non-durable Goods**		**Other Expenditures**	
	(1) *Coeff.*	(2) $\frac{\partial lny}{\partial x}$	(3) *Coeff.*	(4) $\frac{\partial lny}{\partial x}$	(5) *Coeff.*	(6) $\frac{\partial lny}{\partial x}$	(7) *Coeff.*	(8) $\frac{\partial lny}{\partial x}$	(9) *Coeff.*	(10) $\frac{\partial lny}{\partial x}$	(11) *Coeff.*	(12) $\frac{\partial lny}{\partial x}$	(13) *Coeff.*	(14) $\frac{\partial lny}{\partial x}$	(15) *Coeff.*	(16) $\frac{\partial lny}{\partial x}$	(17) *Coeff.*	(18) $\frac{\partial lny}{\partial x}$
Remittance	-0.01	-0.01	0.13*	0.12	0.01	0.01	0.18**	0.17	0.00	0.00	-0.07***	-0.07	0.00	0.00	0.07	0.07	-0.01	0.00
	(0.02)		(0.07)		(0.01)		(0.09)		(0.03)		(0.03)		(0.07)		(0.06)		(0.02)	
Remittance*College	0.03	0.02	-0.05	-0.05	0.03	0.02	-0.13	-0.13	-0.05	-0.05	0.07+	0.07	-0.01	-0.01	0.03	0.03	-0.03	-0.02
	(0.02)		(0.09)		(0.02)		(0.10)		(0.04)		(0.05)		(0.10)		(0.11)		(0.02)	
PCE	-0.23	-0.14	7.76**	7.54	1.65	1.54	2.89	2.82	-0.54	-0.53	5.53	5.50	-5.76	-5.70	1.87	1.87	1.59	0.99
	(0.99)		(3.88)		(1.17)		(4.8)		(1.83)		(3.38)		(5.55)		(4.80)		(1.31)	
PCE squared	-0.02***	-0.01	-0.36*	-0.34	-0.08	-0.08	-0.11	-0.11	0.05	0.04	-0.28*	-0.28	0.36	0.35	-0.08	-0.08	-0.06	-0.04
	(0.05)		(0.19)		(0.06)		(0.23)		(0.09)		(0.17)		(0.27)		(0.23)		(0.06)	
Household size	-0.13***	-0.07	0.94***	0.92	0.05	0.05	0.62*	0.60	0.53**	0.52	0.33	0.33	-0.12	-0.12	1.09**	1.08	-0.22**	-0.14
	(0.08)		(0.26)		(0.13)		(0.35)		(0.26)		(0.32)		(0.55)		(0.51)		(0.10)	
Age of head	0.00*	0.00	-0.01	-0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.02	0.02	-0.02	-0.02	0.00	0.00
	(0.00)		(0.01)		(0.00)		(0.01)		(0.01)		(0.01)		(0.01)		(0.02)		(0.00)	
Educational attainment of household head *(High school omitted)*																		
College	-0.28	-0.16	0.82	0.80	-0.19	0.00	1.49	1.45	0.68	0.66	-1.08**	-1.08	-0.83	-0.82	-0.71	-0.70	0.35	0.22
	(0.28)		(1.00)		(0.23)		(1.09)		(0.51)		(0.47)		(1.02)		(1.20)		(0.25)	
	(0.31)		(1.11)		(0.43)		(1.5)		(0.69)		(1.31)		(1.51)		(1.73)		(0.37)	
Constant	3.72***		-49.2**		-10.3*		-23.8		-4.01		-32.1*		16.35		-14.6		-9.28	
	(5.01)		(19.7)		(6.00)		(25.4)		(9.42)		(17.1)		(28.5)		(24.2)		(6.57)	
Deviance	10.94		15.95		5.43		20.59		4.59		3.67				1.54		16.81	
No of obs.	287		287		287		287		287		287				287		287	

Notes: + marginally significant at 15%, * significant at 10%, ** at 5%, and *** at 1%. Regressions also include dummy variables for the 17 regions in the Philippines (not shown) and for 11 demographic groups (not shown). PCE pertains to per capita expenditure.