2011

An Analysis of Remittance Tendencies of Philippine Migrant Workers

Maryan S. Samson
Claremont McKenna College
CLAREMONT MCKENNA COLLEGE

An Analysis of Remittance Tendencies of Philippine Migrant Workers

SUBMITTED TO

PROFESSOR BROUSSARD

AND

DEAN GREGORY HESS

BY

MARYAN SELMA SAMSON

FOR SENIOR THESIS

SPRING 2011
**Introduction**

In developing countries, remittances play a key role as a source of external finance. Remittances are a form of aid that migrant workers send back to their families, located in their home countries, in order to support the needs of the household. In about 25% of developing countries, remittances are larger than public and private capital flows combined (International Monetary Fund, 2009). The reason why remittances are so important is due to its capability to relieve economic pressure over poor households. This form of external aid and private finance between migrant worker and their families demonstrates the collectivist culture of developing countries. Finding work in developing countries is a difficult task due to low wages and little opportunity. Therefore, the more educated individuals of the family leave the home with the intention of finding work where they can make enough money to support their families back home. In many cases, the remittance flow from migrant to their home will last 7 to 10 years, by then having either moved back home or successfully uprooting the entire family to their current place of work (Tabuga 7).

After World War II, the Philippines held a lot of promise to become one of the richest countries in Asia (The Columbia Encyclopedia, Sixth Edition). Under the control of Ferdinand Marcos, however, the growth hit a steady decline and the Philippines was met with an economic downfall. The country that was supposed to be one of the richest became one of the poorest. Ferdinand Marcos, the tenth president of the Philippines from 1965-1986, saw that the Philippines was on a downward spiral with high population growth and high unemployment, thus he implemented an official government policy which encouraged the export of labor (Semyonov, Gorodzeisky 620). The intention of the
policy was to encourage workers to seek jobs outside of the country but only as a temporary means of employment. In addition, the job opportunities in which the migrants were to seek were to be those that were under government regulated channels in order to ensure their return. A main goal of this policy was to help the financial situation in the Philippines through the migrant workers sending back remittances to their families. Though this was not a stated part of the policy, it was expected. The work of migrants and their devotion to their family is valued and respected in the Philippines and every year on Migrant Workers Day, twenty migrant workers are awarded the “Baygong Bayangi” award (translated into, modern-day hero) for their “moral fortitude, hard work and track record for sending money home.” Thus, showing that sending back aid to the family is highly respected in the Philippines. The reasoning in 1974 was to help unemployed workers, whereas now, it is being used to help households while stimulating the economy. Finding out what household characteristics are important to the decision to remit can help explain the current driving force behind remittances. It’s evident that searching for work is no longer the sole purpose behind the decision to migrate. This paper will aim to examine what the influencing factors of the household are and how these factors determine the likelihood of a household having a migrant worker. From there, I will see how these same household characteristics influence the decision to remit and the value, to help further explain how the motivation of migration has changed since 1974.

Even with the world being in an economic crisis, remittance flows to the Philippines are not only unaffected but are on the rise. This shows that the ties between the migrant worker and their household are a very important and interesting relationship.
As in most collectivist cultures, being supportive and taking care of one’s family is the utmost important priority, especially in the case of leaving the home in order to pursue a career that would benefit the household. Although it is likely that not all migrant workers do remit, the decision on whether or not a household receives a remittance depends on several variables. And in addition, if a household does receive a remittance, the value of the remittance also depends on household needs as well as household composition.

Therefore, using a probit model and an OLS regression model focusing on the Philippines in 2003, this paper will focus on exploring what variables influence the decision to send a household member away for work, what factors contribute to whether or not a household receives a remittance and if they do, how these same characteristics affect the value of the remittance.

Many previous studies of the Philippines focused on how remittances affect consumption trends and poverty relief, which helped to understand the effect of remittances on the economy. However, by focusing on the factors that examine the household receiving the remittance and what characteristics determine the value, it allows for a better understanding as to why remittance flows are so high. When labor migration was implemented in the Philippines it was to help young men find work since their economy was struggling. Since then, labor migration overseas became a very popular and even necessary factor in many households.

In 2008, the Philippines economy was the 47th largest economy in the world with a GDP of $322 billion dollars (Asian Development Bank, Fact Sheet). Remittances accounted for over 10% of the Philippine economy, making the Philippines one of the world’s highest remittance receiving countries. Today, according to the Philippine
Central Bank: “Remittances from around 10 million Filipinos living and working overseas—about one tenth of the population—provide support to the peso and drives consumption in the Philippine economy, which grew 7.3 percent in 2010, its fastest growth in more than three decades (Reuters, 2011).” Therefore, it’s obvious that the Philippine economy depends heavily on remittances, as it is a main source of income for many citizens as well as a main source of GDP for the Philippines. In addition, in the year 2010 the amount of remittances in the Philippines reached a record of $18.76 billion, which is an increase of 8.2 percent from the previous year (Reuters, 2011).

**Literature Review**

The study of remittances to the Philippines is a common and popular subject due to the fact that Filipino migrants are heavily involved in the global labor market. As previously mentioned, the labor migration policy in the Philippines was the beginning of an economic push for the falling Philippine economy. Ever since the policy was enacted, remittances have become a dependable and necessary income source for Philippine households. Since remittances play such an important role in Philippine households, many studies focused on dissecting the affects of remittances on a household. Due to the fact that the Philippine economy relies heavily on remittances, and since remittances make up a majority of the Philippine GDP, it is obvious that the amount of money and aid that a family receives will have a large impact on the well-being of the household. Additionally, remittances will have an impact on the consumption, expenditure, investment and savings levels of the household.

Semyonov and Gorodzeisky (2008) focused on the ways in which remittances affect the standard of living of households in the Philippines. They compared households
with oversea workers with households without oversea workers to see how their income and standard of living compared. They found that families with oversea workers are better off, in terms of income per capita. These findings are not surprising given the fact that households that do receive remittances are getting an additional source of income. The decision to remit is a decision that is made prior to the migrant workers departure from the Philippines. A decision that entails the intention of financially supporting the household left behind. The idea behind leaving the Philippines to find work elsewhere is due to the job opportunities available outside of the country- jobs that offer higher wages and better career options. Thus, their increase in income increases the income of their household that they remit to- unlike in a household without an oversea worker. Therefore, as Semyonov and Gorodzeisky (2008) found, remittances are important to a household’s well-being because it offers the much needed financial support, which helps to explain why remittances are so popular in the Philippines. Semyonov and Gorodzeisky (2008) found that there is a very large gap between households with migrant workers and households without, however what they failed to further examine were the differences in household characteristics. By examining the needs and demographic of the household, it could offer insight as to why certain households receive remittances and others do not.

Many studies (Yang 2008, Semyonov 2009, Rodriguez 1996) explore the characteristics of the migrant workers and have consistently found that the characteristics of the migrants are important in determining the kind of migrant picked to work overseas. Additionally, it gives a better understanding as to why the migrant decides to send money back. Since on average, the migrant is older, the most educated and frequently the head of the household, it shows that the migrant is frequently the family member with the most to
offer. The fact that the migrant is almost always the head or spouse of the head of the household shows that although the characteristics migrant are important, there is also an obligation to send money back due to the demographic of the household left behind. Therefore, although the characteristics of the migrant workers are important factors in the decision to remit, the characteristics and needs of the household can also alter this decision if the household is in need of outside aid. By only observing the characteristics of the migrant worker, one is assuming that remittances are sent back solely based on the circumstance of the migrant worker- when, in reality, the decision has many more influences.

Although having a migrant worker is a likely characteristic of Philippine households, not all households do have migrant workers. The first question of this paper aims to find what household characteristics effect whether a household will have a migrant worker. The Philippines is a third-world developing country, therefore for many of its educated citizens, leaving the country to find work is a common career direction. The Philippines lacks the opportunities that another country can offer, which means that other locations which offer more favorable conditions, will be more attractive to those looking for work. The “push-pull” theory, states that unfavorable conditions in one location will push people out, and favorable conditions in another location will pull them in (Lee, 50). The host country will likely have better job opportunities and educational opportunities, whereas the origin country lacks these “pull” factors. Although these positive “pull” factors are what motivate the worker to migrate outside of the country, the “push factors” are the variables that influence the decision to leave the Philippines. In this
case, I will specifically look at the household “push” factors that influence the decision to send a household member away for work.

For the second and third question of this paper, for the households that do have migrant workers and receive remittances, determining both of these variables is important in understanding the necessity of the remittance. A household that has a migrant worker means that they left the Philippines in order to pursue other opportunities outside of the country. These opportunities can be for personal reasons or it can be for the common good of their origin household because they have the intention of sending back money to support them. The theory of altruistic remittances focuses on “altruism” to assess the stability of remittances by understanding the willingness of a migrant worker to provide assistance to their household. Bouhga-Hagbe (2006) studied altruism and workers’ remittance in the Middle East and Central Asia. The Middle East and Central Asia, like the Philippines, have a high percentage of remittances that make up a significant portion of their GDP. Bouhga-Hagbe (2006) finds that altruism plays an important role in the decision to remit when there is a hardship in the household (Bouhga-Hagbe, 10). Therefore, according to the theory of altruism, for the households that do have migrant workers, their decision to remit will depend on factors that reflect hardships in the household and reflect the necessity of outside aid. Additionally, for the households that do receive remittances, the value of the remittance will also reflect the amount of necessity of a remittance, depending on the hardships of the household. Although the theory of altruism may be true, it’s only a part of the reason. To fully understand the decisions to send a remittance as well as the effect on the value, it is important to look at other variables besides hardships, such as the household characteristics and
characteristics of the migrant worker. Therefore, in this paper I will aim to further
examine both the economic theories of remittances as well as expand on other studies that
looked at the decision making of Philippine migrant workers.

Data

The data used in this research was from the International Food Policy Research
Institute (IFPRI) and the Research Institute for Mindanao Culture, Xavier University
(RIMCU) of households in the Bukidnon, Philippines. The original survey began in
1984-1985 and investigated the effects of agricultural production on the nutrition and
household welfare of rural Filipino families. The sample was drawn from 29 different
villages in the Philippines, which consisted of 30 to 100 households with 50 to 100
families. The survey contained information on food and non-food consumption
expenditures, agricultural production, income, asset ownership and education. In
addition, the respondents listed all individuals living in the household and all children
who lived away from home or outside of the country. The interview also included a basic
set of information about all children, including location, education attainment, and
marital status.

The data used in this paper was contained from solely the 2003 interview process,
making this research a cross sectional observation. It was a continuation of the 1984-1984
surveys, of all the original respondents from the 1984-1985 surveys that were still living
in the survey area. The data was collected by a survey questionnaire that each household
completed. Out of the original 510 households, only 311 were interviewed again and then
an additional 251 households were added for a total of 562 households. For the first
regression, determining what characteristics influenced if a household had a migrant
worker, 561 households were used. For the second regression, only households that had
migrant workers were used, which was all of the 561 households. And, for the last
regression, only households that received remittances were used, which totaled to 367
households.

Using the IFPRI data, it was important to identify influential household
c characteristics that would reflect the need for a migrant worker, the need for a remittance,
and the value of the remittance. These characteristics were broken down into key
household characteristics, specifically focused on the household head. The characteristics
of the household: household size, sex of the household head, age of the household head,
the education of the household head, and the marital status of the household head. Each
of these characteristics helps to show the influence that households have over the
decisions of migrant workers. Focusing on characteristics of the household head
specifically, gives insight into the way the household is run which can determine the
necessity of aid from outside assistance. The characteristics of the household head were
all found in the demographics and roster section of the questionnaire.

Since the International Food Policy Research Institute focused more on
consumption in these rural communities, the data was collected and recorded on an
individual level. For my regression to be correctly used, the data had to be merged into
household sets to understand the effects of remittances on households. Since the
questions are aimed at a household level, it was necessary to compile and refine the data
into households. In the Philippines, it is natural for households to consist of several
families and several individuals. The range of household size was from 1-16. The original
data was by individual and in order to accurately find if household size affected the need
of a migrant worker, I had to create a household variable. Thus by combining all the
individuals living in a household, I created a household size variable using the count of
the number of household members and the household id.

Additionally, the income of household is very important in determining the
financial standing of the household. The income variable in this dataset is a calculation of
all the positive income sources subtracted by the sum of all transfers received. Since this
data was collected from rural villages, positive income was a measure of what the family
produced (crop production, livestock), wages from employment, and income from the
government. The amount of transfers was measured by the sum of all transfer payments
received by the household. The transfers received were subtracted from the total income,
in order to ensure that the solely household income was being reported and that
remittances or any transfers were not added to this total. The financial situation of the
household helps to determine the needs of the household. When trying to determine if a
household has a migrant worker, receives a remittance and its value, the current
economic situation of the household will reflect upon these decisions, this would be a
“push” factor of the “push-pull” theory. This “push” factor would be reason to motivate
the migration from a less favorable condition to a place that can offer more opportunities.
In the case of financial standings, if a household is in need of assistance, this would push
the need for a migrant to find work where there are more favorable wages to help aid the
economic pressures back home.

The data did not contain information specific to migrant workers, therefore, I had to
create a migrant worker variable. In order to do so, I used the roster and demographics
questionnaire, which identified if the household had members of the household living
away. Then, among those living away from the household, I specified for those looking for work as well. By controlling for these two specifications, it showed that there were 175 households that had a migrant worker. Additionally, while identifying the households that receive remittances, I found that 192 of the households received remittances. If a household was receiving a remittance, it was more than likely from a migrant worker, therefore, I combined the migrant households with the remittance receiving households to create the migrant worker variable.

Table 1 gives summary statistics of the IFPRI data which was used. The summary statistics help to further examine the differences between a household with a migrant worker and a household without a migrant worker. Column 1 is the average demographics of all of the households. Column 2 is the average demographics of a household with a migrant worker. Column 3 is the average demographics of a household with no migrant worker. Column 1 shows that the average Filipino household surveyed, has 7.55 individuals with the household being a male in his mid-forties. Out of all of the households, there were about .702 migrants, .654 of which sent remittances.

When comparing Column 2 and Column 3 we see a lot of similarities as well as key differences. Column 2 shows that a household with a migrant worker contains 7.906 individuals, whereas a household with no migrant worker contains 6.718 individuals. Column 3 also shows that a household with no migrant worker has a younger household head than a household with a migrant worker. The similarities between the two households are seen in the education of the household head and the income. For both a household with a migrant worker and without a migrant worker, the income is virtually the same with an average income of 11,000 pesos. By looking at the summary statistics
of the households, we are able to see how the household variables vary in a household with a migrant and a household with no migrant. By observing these similarities and differences we can infer that the variables in which the households differed will be the influential variables in whether a not a household will have a migrant.

The possible flaws of this research lay in the fact that the IFPRI data lacks information of the migrant. The only migrant characteristic that was used was the relationship between migrant worker and household head. Although this is a very important characteristic of the migrant, it is not a strong variable. There are many other variables which would be influential over the sending of a remittance and its value. This lack of information of the migrant leads to endogeneity bias. Due to many omitted variables of the migrant, when trying to determine the probability of sending back a remittance and its value, these omitted variables are captured in the error term. This could make significant variables look insignificant as well as making insignificant variables look significant. Thus, the lack of migrant information affects the way in which the outcomes are interpreted.

**Empirical Specifications & Results**

This paper aims to answer three questions: (1) What household characteristics determine whether or not a household will have a migrant worker? (2) If the household does have a migrant worker, what characteristics determine whether or not the household will receive a remittance? (3) If the household does receive a remittance, what characteristics influence the value of the remittance? In order to answer these questions, I created three models, each with different dependent variables.
The first two questions were answered using a probit model, where $Y_i$ is the binary free distribution participation indicator. For the first probit model, $Y_i$ takes on a value of 1 if the household has a migrant and 0 if otherwise. For the second probit model, $Y_i$ takes on a value of 1 if the household receives a remittance and 0 if otherwise. To answer the last question, I use a simple OLS regression using the same household characteristics and the migrant’s relationship to the household head. In the third regression, for households that do receive remittance, the value of the remittance is the dependent variable.

Since the first regression aims to answer questions about how the characteristics of the household reflect the probability of having a migrant worker, there is no need to include the migrant worker variable. For the regressions that do involve the migrant worker, the relationship of the migrant to the household head is taken into account. It is important to consider the relationship between the migrant and the household head due to the fact that it will reflect upon the obligation and attachment that the migrant feels to the household. These variables are influential over the decision to send a remittance as well as the value of the remittance.

All three dependent variables are functions of the possible determinants: household income (previous to the remittance), household size, sex of the household head, age of the household head, the education of the household head, the marital status of the household head, and for the last two regressions, the migrant’s relationship to the household head. In the first probit model, however, the migrant characteristic (the
relationship to the household head) is omitted. We argue that the same variables go into the decision for whether or not a household will receive a remittance and how much aid a household should receive once selected to receive a remittance, but the coefficients on each variable may be different across the different specifications.

Table 2 provides the results of these three specifications: Column 1 and Column 2, using a probit model, looks at the marginal effects of the probit where all the dependent variables are evaluated at the mean. Column 2, however, differs in that it solely focuses on migrant households. Column 3 uses the simple OLS regression.

Column 1, using the probit model, looks at the variables which determined if a household would have a migrant worker. As mentioned previously, the households in the Philippines range from 1-16 individuals in a household. Since it is a collectivist culture, it is common to have multiple families under one roof, which makes for a large household size. My findings show that with every one unit increase in the household size, the household is 0.0172 more likely to have a migrant worker. This is to say that if there is a large household, there is a higher need for a migrant worker, which could be seen as another “push” factor. Large households have more needs and therefore need a higher amount of income to support their lifestyle.

Depending on the income that the household already has, also has an effect on the need of a migrant worker for the same reason. The coefficient on income is negative, which shows that as income increases, the household is -0.0311 less likely to have a migrant worker. This can be interpreted as a household with a higher net income, is less likely to have a migrant worker because it doesn’t need the outside financial aid source.
The household is also more likely to have a migrant worker depending on the primary and secondary education of the household head. Primary education in the Philippines is six levels of education, from ages 6-12. For every additional unit of education that the household head completed, in primary education, the household was .24 more likely to have a migrant worker. If the household head, pursued education further and had secondary education, from age 12-17, the household having a migrant also increased by .31. The more education that the household head has reflects up several factors of the household. It is likely, that the higher the education of the household head, the higher the education pursued by the children as well. Thus, if the children are highly educated, they are more likely to pursue job opportunities where wages are high and opportunities are better (the pull factors of other countries).

The age, sex, and marital status of the household head are all insignificant variables over the probability of the household having a migrant worker. The marital status of the household head has a negative coefficient, which says that if the household head is married, they are less likely to have a migrant worker. This seems important to not be significant because according to previous studies, migrant workers tend to be a spouse to the household head (Rodriguez, S429). The negative coefficient could be a problem with endogeneity. Since, the model lacks the characteristics of the migrant worker, the omitted variable bias is captured in the error term, which could explain why this term is negative.

Column 2, also using the probit model, looks at specifically the households that do have migrant workers. The income variable here is also negative, which shows that as household income increases, they are -.038 less likely to receive a remittance from the migrant worker. As previously mentioned, if a household has higher income, they are less
likely to need a migrant worker. Therefore, if there is a migrant worker, they are less likely to send a remittance back to the household due to the fact that with a higher income, outside assistance is not needed.

The age of the household head bares influence over the migrant worker’s decision to send a remittance. For every year older the household head, the household is .004 more likely to receive a remittance. The age of the household head, reflects their role in the house as well as their ability to participate in the labor force. The older that the household head is, the more assistance they need, especially if they are unable to work and need to provide income to support the household. Additionally, the secondary education of the household head increases the probability of the household receiving a remittance by .24. The higher the secondary education attained by the household head, the more likely they are to receive a remittance.

The size of the household has a negative coefficient, although insignificant, contradicts the previous column. In Column 1, it shows that household size increases the probability of having a migrant worker. Whereas, in Column 2, looking at households that solely have migrant workers, the household size is now negatively effecting the probability that they will send a remittance. If the household size influences the need for a migrant worker, it would be expected that the household size would also influence the decision to remit. Therefore, the negative coefficient on this variable is not consistent with the findings.

Column 3, using the OLS regression, focuses only on the households that receive remittances. Since these households are all receiving remittances, it means that there is a certain level of necessity for outside aid in these household. For a one unit increase in the
household size, the value of the remittance will increase by 8%. As shown in the first probit model, the larger the household, the more likely they are to have a migrant worker due to the fact that they need additional income to support large households. The “push” factor of having to support a large family, calls for a larger remittance because there are more financial needs and more people to support.

In Column 1 and Column 2, the income coefficient was negative, which reflected that the more income the household received, the less likely they were to have a migrant worker and less likely to receive a remittance. Since the third regression solely focuses on the households that do receive remittances, the coefficient on income is now positive. This is to say that, in this regression solely the households in need of remittances were receiving remittances, therefore the income variable is now positively significant. Thus, since this regression most likely omits the households with higher income, for a 10% increase in come, the value of the remittance increases by 1.25%.

The relationship between the migrant worker and the household head has the most significant influence over the value of the remittance. Depending on the relationship between the migrant worker and the household head, the value of the remittance will increase by 63%. This shows that the closer the immediate relationship is between the two, i.e. a spouse or daughter or son, the migrant worker will send more money back to the household. This could be due to the amount of obligation felt by the migrant worker due to their role in the household, as well as the dynamics of the collectivist culture and the need to support their family.

The sex and the education attained by the household head have negative coefficients on their effect on the value of the remittance. These variables were not deemed significant;
however, their negative coefficient could be explained by the large standard deviation. The large standard deviation indicates that the data is spread out over a large range of values, making it hard to determine its effect on the dependent variable.

Conclusion

Since only 27 households were dropped in the last regression, it shows that remittances are received by a majority of all migrants, which explains why remittances account for over 10% of the Philippine economy. When the economic policy of migration was implemented in 1974, it aimed to give opportunities to workers that were not available in the Philippines. The government recognized that the Philippine economy was failing rapidly with high population growth and high unemployment. The policy helped to encourage workers to migrate to find work, in order to provide better opportunities for its citizens. The push-pull theory (Lee 1966) came into effect, and due to the negative conditions in the Philippines, the citizens were pushed to find an alternative option in more favorable conditions. The underlying motive of the policy was that by migrants finding work elsewhere, they would send back money to their households in order to help stimulate the failing economy. To this day, remittances still serve that same purpose, however, the policy is no longer the encouragement needed. Rather, the demographics and necessities of the household are what motivate the need for a migrant worker and it is these characteristics that influence the value of the remittance.

The objective of this paper was to examine three questions, (1) What household characteristics determine whether or not a household will have a migrant worker? (2) If the household does have a migrant worker, what characteristics determine whether or not the household will receive a remittance? (3) If the household does receive a remittance,
what characteristics influence the value of the remittance? The data presented showed that when it comes to a household having a migrant worker, the household is most likely to have a migrant the larger the household, the smaller the income, and the more education that the household head has attained. For households that do have a migrant worker, the household is more likely to receive a remittance the smaller the income, the older the household head, and the more secondary education attained by the household head. Lastly, solely looking at households that do receive remittances, the value of the remittance will be higher, the larger the household, the larger the income of the household, and the closer the relationship between the migrant worker and household head. The results show that income is the most influential variable over all three regressions, which explains that the driving force behind migrants and remittances is to provide economic relief and aid to the household.

Table 1.

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>total</th>
<th>migrant</th>
<th>no migrant</th>
</tr>
</thead>
<tbody>
<tr>
<td>hhsize</td>
<td>7.55</td>
<td>7.906</td>
<td>6.718</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>sexhd</td>
<td>0.95</td>
<td>0.944</td>
<td>0.964</td>
</tr>
<tr>
<td></td>
<td>(0.217)</td>
<td>(0.229)</td>
<td>(0.1866)</td>
</tr>
<tr>
<td>agehd</td>
<td>44.09</td>
<td>45.2</td>
<td>41.46</td>
</tr>
<tr>
<td></td>
<td>(13.64)</td>
<td>(13.73)</td>
<td>(13.08)</td>
</tr>
<tr>
<td>prim_eduhd</td>
<td>0.5401</td>
<td>0.538</td>
<td>0.5449</td>
</tr>
<tr>
<td></td>
<td>(0.4988)</td>
<td>(0.497)</td>
<td>(0.4994)</td>
</tr>
<tr>
<td>sec_eduhd</td>
<td>0.4349</td>
<td>0.444</td>
<td>0.4131</td>
</tr>
<tr>
<td></td>
<td>(0.4961)</td>
<td>(0.4975)</td>
<td>(0.4938)</td>
</tr>
<tr>
<td>marhd</td>
<td>0.9483</td>
<td>0.9392</td>
<td>0.9701</td>
</tr>
<tr>
<td></td>
<td>(0.2214)</td>
<td>(0.2391)</td>
<td>(0.1709)</td>
</tr>
<tr>
<td>lninc</td>
<td>11.029</td>
<td>11.018</td>
<td>11.055</td>
</tr>
<tr>
<td></td>
<td>(1.363)</td>
<td>(1.423)</td>
<td>(1.214)</td>
</tr>
<tr>
<td>migrant</td>
<td>0.702</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(0.4574)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>relationHH</td>
<td>--</td>
<td>0.5815</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>(0.4939)</td>
<td>--</td>
</tr>
<tr>
<td>remit</td>
<td>0.6548</td>
<td>0.9316</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(0.4758)</td>
<td>(0.2526)</td>
<td>--</td>
</tr>
<tr>
<td>lnvaluermitt</td>
<td>--</td>
<td>8.019</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>(1.61)</td>
<td>--</td>
</tr>
<tr>
<td>Observations</td>
<td>561</td>
<td>368</td>
<td>167</td>
</tr>
</tbody>
</table>

Table 2.
<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>migrant</th>
<th>remit</th>
<th>Invalueremit</th>
</tr>
</thead>
<tbody>
<tr>
<td>hhsiz</td>
<td>0.0172**</td>
<td>-0.000280</td>
<td>0.0821***</td>
</tr>
<tr>
<td></td>
<td>(0.00803)</td>
<td>(0.00745)</td>
<td>(0.0308)</td>
</tr>
<tr>
<td>lninc</td>
<td>-0.0311*</td>
<td>-0.0385**</td>
<td>0.125**</td>
</tr>
<tr>
<td></td>
<td>(0.0169)</td>
<td>(0.0176)</td>
<td>(0.0582)</td>
</tr>
<tr>
<td>agehd</td>
<td>0.00243</td>
<td>0.00406*</td>
<td>0.0124</td>
</tr>
<tr>
<td></td>
<td>(0.00219)</td>
<td>(0.00220)</td>
<td>(0.00844)</td>
</tr>
<tr>
<td>sexhd</td>
<td>0.104</td>
<td>0.131</td>
<td>-0.774</td>
</tr>
<tr>
<td></td>
<td>(0.171)</td>
<td>(0.170)</td>
<td>(0.566)</td>
</tr>
<tr>
<td>prim_eduhd</td>
<td>0.246**</td>
<td>0.173</td>
<td>-0.465</td>
</tr>
<tr>
<td></td>
<td>(0.117)</td>
<td>(0.126)</td>
<td>(0.563)</td>
</tr>
<tr>
<td>sec_eduhd</td>
<td>0.309***</td>
<td>0.243**</td>
<td>-0.0542</td>
</tr>
<tr>
<td></td>
<td>(0.106)</td>
<td>(0.120)</td>
<td>(0.571)</td>
</tr>
<tr>
<td>marhd</td>
<td>-0.135</td>
<td>-0.0918</td>
<td>0.359</td>
</tr>
<tr>
<td></td>
<td>(0.116)</td>
<td>(0.141)</td>
<td>(0.542)</td>
</tr>
<tr>
<td>relationHH</td>
<td></td>
<td></td>
<td>0.634***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.169)</td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td>5.769***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.914)</td>
</tr>
<tr>
<td>Observations</td>
<td>561</td>
<td>561</td>
<td>367</td>
</tr>
<tr>
<td>R-squared</td>
<td></td>
<td></td>
<td>0.197</td>
</tr>
</tbody>
</table>

Standard errors in parentheses

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

Column 1 and Column 2 report the marginal effects as the derivative of the cumulative normal distribution at the mean of the right hand side variables; for dummies the marginal effect expressed as the discrete change from 0 to 1 is reported. For Column 1, the dependent variable is 1 if the household had a migrant and 0, if otherwise. For Column 2, the dependent variable is 1 if household received remittance 0, if otherwise.


