An Overview of Data Contained in the 2005/06 Ghana Living Standards Survey (GLSS 5) (Sub-sample) On Migration and Remittances

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In the past few, if any, nationally-representative household surveys have collected detailed data on migration and remittances in any Sub-Saharan African country. As a result, little is known about the characteristics of households that receive internal and international remittances, and even less is known about the age, gender and skill composition of internal and international migrants in Africa. For these reasons, the 2005/06 Ghana Living Standards Survey 5 (GLSS 5) (sub-sample), with its focus on collecting detailed household- and individual-level information on migration and remittances in Ghana, represents a very unique source of information. This paper provides an overview of the data contained in the GLSS 5 (sub-sample), and suggests ways in which the information contained in this survey can be used to guide researchers and policymakers working on migration and remittances in Sub-Saharan Africa.

The GLSS 5 (sub-sample) is a nationally-representative survey of 4,000 urban and rural households in Ghana. It was carried out by a series of detailed household interviews conducted by the Ghana Statistical Service (GSS) over a 12-month period (September 2005 to September 2006). The GLSS 5 (sub-sample) was designed and implemented as a sub-sample of the larger, nationally-representative GLSS 5, which included over 8,000 urban and rural households in Ghana.

The relationship between the GLSS 5 (sub-sample) and the larger GLSS 5 is as follows. The GLSS 5 (sub-sample) includes a unique module of questions on internal and international migration and remittances. This module of questions was inserted into the larger and more comprehensive GLSS 5. The larger GLSS 5 asked questions on all aspects of living conditions in Ghana, including income, expenditure, health, education, employment, housing, savings, and credit and assets. The GLSS 5 (sub-sample) includes data collected from 4,000 nationally-representative households on the module on migration and remittances, as well as all data collected on these households in the larger GLSS 5. Appendix Table 1 lists by topic all the data included in the GLSS 5 (sub-sample).

This overview of information contained in the GLSS 5 (sub-sample) proceeds in six parts. First, in order to establish the robustness of the GLSS 5 (sub-sample), the paper compares selected characteristics of the last nationally-representative GLSS survey in Ghana (GLSS 4, 1998/99) with those of the GLSS 5 (sub-sample). This comparison shows that the information collected from the two nationally-representative household surveys is roughly similar over time. Second, the paper compares household-level data on remittance-receiving and non-receiving households from the GLSS 5 (sub-sample). This section finds that households receiving remittances tend to be different – in terms of human capital, etc — than non-remittance receiving households. However, remittances are not the same as migration because not all migrants remit: in the GLSS 5 (sub-sample) only 53 percent of all migrants remit. Moreover, many migrants remit to households

¹ This migration and remittances module includes about 45 questions on the socio-economic characteristics of current migrants, including their age, educational status, occupation, current work location, and amount of money and goods sent home. In this module migrants are defined as those household members who are currently living and working (or looking for work) outside the household. Migrants include both internal migrants (working in Ghana) and international migrants (working in African or other countries).

other than their nuclear households; that is, they remit to relatives and friends. Since migration and remittances are different, the third part of this paper compares householdlevel data on households with and without migrants. This comparison shows that the differences between migrant and non-migrant households – in terms of human capital, etc -- are not as stark as those between remittance-receiving and non-receiving households. Since migration is undertaken primarily by individuals, the fourth part of the paper goes from the household-level to the individual-level to compare individual characteristics of migrants and non-migrants. This comparison finds that while migrants tend to be younger and more educated than non-migrants, other differences between migrants and non-migrants are not so clear. The fifth section of the paper compares selected characteristics of internal migrants (in Ghana) with international migrants (in Africa or other countries). When compared to internal migrants, international migrants are more likely to remit and to use their remittances to open a business or construct a new dwelling (to rent out). Since international migrants who are working in Africa may be different from those working outside of Africa, the sixth and final section of the paper compares various characteristics of international migrants working in Africa with those working outside of Africa. This section finds that international migrants working outside of Africa are better educated and more skilled than those working in other African countries.

1. GLSS 4, 1998/99 vs. GLSS 5, 2005/06 (sub-sample)

Table 1 compares mean values of selected household-level characteristics from the last nationally-representative GLSS survey in Ghana (GLSS 4, 1998/99) with those of the GLSS 5 (sub-sample). While the GLSS 5 (sub-sample) collected data on a total of

4,000 households, missing information on certain variables reduced the size of the sample to 3,941 households. Table 1 (and all other tables in this paper) is therefore based on 3,941 households.

On the one hand, the t-test results in Table 1 suggest that the information collected from the two nationally-representative household surveys in Ghana is roughly similar over time. For instance, the variables measuring number of household males over age 15 with primary school and age of household head show no statistical change between 1998/99 and 2005/06. However, other variables – especially those relating to education and household size – do show change over time. With respect to education, it is possible that the positive statistical change in the variables measuring senior secondary school and university education reflect the growing diffusion of education in Ghana. However, it is more difficult to explain the negative statistical change in the variables measuring household size and number of children under age 5. These latter results suggest that household size fell in Ghana over the period 1998/99 to 2005/06, and that this decline in family size was due primarily to the fall in the number of children under age 5. More work is needed to see if this decline in household size in Ghana is real.

With respect to remittances, Table 1 shows that there has been a slight decline in the proportion of households receiving remittances in Ghana. Between 1998/99 and 2005/06 the proportion of households receiving internal remittances (from Ghana) fell from 35.6 to 30.9 percent, while the proportion of households receiving international remittances (from African or other countries) declined from 8.1 to 6.8 percent.

2. Non-Remittance and Remittance-Receiving Households, GLSS 5, 2005/06 (subsample)

Table 2 compares mean values of selected household-level variables from the Ghana GLSS 5 (sub-sample) for three groups of households: households receiving no remittances, households receiving internal remittances (from Ghana), and households receiving international remittances (from African or other countries). As noted at the bottom of the table, 2,509 households (63.6 percent) receive no remittances, 1,216 households (30.9 percent) receive internal remittances, and 267 households (6.8 percent) receive international remittances. A total of 51 households receive both internal and international remittances. While far more households receive internal rather than international remittances (1,216 vs. 267 households), the average amount of remittances received from internal remittances is much less than that received from international remittances. At the mean, per capita total remittances received by households with internal remittances is only about 30 percent that of the amount received by households with international remittances (982,239 vs. 3,488,532 Ghanaian cedis).

On the issue of human capital, Table 2 shows that there are important differences between households with no remittances, internal remittances and international remittances. On average, households receiving internal remittances (from Ghana) have significantly less human capital than households with no remittances. For example, when compared to households with no remittances, households receiving internal remittances have significantly fewer members with a senior secondary school or university education, and are headed by people with fewer years of schooling. However, just the opposite pattern holds for households receiving international remittances (from African and other

countries). On average, households receiving international remittances have significantly more senior secondary school and university educated members than households with no remittances. Households receiving international remittances are also headed by people with more years of schooling.

Households receiving international remittances are also different from the other groups of households with respect to ethnicity and area. When compared to households with no remittances and internal remittances, households receiving international remittances are statistically more likely to be of Asante ethnicity and to be from urban areas.²

It is important to note that remittances represent a large share of mean income for households receiving remittances. According to the data, per capita total remittances (including money and goods) represent 20.9 percent of total per capita expenditures for households receiving internal remittances, and 42.7 percent of such expenditures for households receiving international remittances.³ Most of these remittances come in the form of cash. Households with internal remittances receive about 75 percent of their total remittances (including money and goods) in the form of cash, while households with international remittances receive about 83 percent of their total remittances in cash.

On the issue of expenditure, the data show that households with internal remittances have average annual per capita expenditures (excluding remittances) which are significantly less than those of non-migrants. In other words, on average, households

² Nineteen ethnic groups are included in the GLSS 5 2005/06 (sub-sample). The largest of these ethnic groups is the Asante group, accounting for 17.8 percent of all households.

³ This comparison assumes that household income is defined on the basis of per capita household expenditure (excluding remittances). However, this definition is a bit simplistic because for households receiving remittances it does not include any imputation for the home earnings of migrants had they stayed and worked at home. More sophisticated analysis of the income status of households with and without remittances is needed.

receiving internal remittances are poorer than non-migrant households. However, households with international remittances are much richer than the other two groups of households. Mean annual per capita expenditures (excluding remittances) for households receiving international remittances are about 27 and 74 percent higher, respectively, than those of households with no remittances and internal remittances.

In general, the results for the human capital and expenditure variables in Table 2 suggest that there is "negative selection" of households receiving internal remittances (from Ghana) and "positive selection" of households receiving international remittances (from African and other countries). However, more sophisticated analysis of the Ghana GLSS 5 (sub-sample) data – possibly using an instrumental variables approach -- is needed to confirm the size and the direction of the selection bias for remittance-receiving households in this sample.

3. Households With and Without Migrants, GLSS 5, 2005/06 (sub-sample)

Since migration and remittances are different, Table 3 supplements the previous table by presenting mean values on selected household-level variables for migrant and non-migrant households. The table presents three groups of households: households with no migrants, households with internal migrants (in Ghana) and households with international migrants (in African or other countries). As noted at the bottom of the table, 3,030 households (76.9 percent) have no migrants, 754 households (19.1 percent) have internal migrants, and 234 households (5.9 percent) have international migrants. A total of 77 households have both internal and international migrants.

Comparing the household totals in Tables 2 and 3 reveals a key point, namely, that the number of households receiving remittances exceeds the number of households with migrants. While Table 2 shows that 1,216 and 267 households receive internal and international remittances, respectively, Table 3 shows that only 754 and 234 households have internal and international migrants, respectively. In other words, migrants in Ghana – both internal and international migrants – are sending remittances to more than their nuclear household or family. Migrants in Ghana are remitting to their relatives, for reasons of family ties, and they are also remitting to friends, possibly to repay loans used to finance migration. More work is needed on the GLSS 5 data to determine how and why migrants in Ghana remit to relatives and friends.

Since migrants are remitting to a variety of people, Table 3 reveals a curious fact, namely, that households with no migrants <u>are</u> actually receiving remittances. While the mean per capita amount of total remittances (including money and goods) received by non-migrant households is much less than that received by households with internal migrants, the difference in the amount of total remittances received by these two groups of households is not statistically significant. For all three groups of households the great bulk of remittances – about 80 percent – come in the form of cash.

On the issue of human capital, Table 3 shows that – unlike the previous table — many of the differences in human capital variables between the three groups of households are <u>not</u> statistically significant. However, two variables are statistically significant between no migrant, internal migrant and international migrant households: years of schooling of household head and age of household head. When compared to non-migrant households, heads of internal migrant households have significantly less

education while heads of international migrant households have significantly more education. Both sets of migrant households also have older household heads. This latter result suggests that migration may be (in part) a life-cycle event, with older households producing more migrants than younger households.

In Table 3 two of the more important differences between migrant and non-migrant households concern ethnicity and area of origin. On average, when compared to non-migrant households, households with internal or international migrants are significantly more likely to be of Asante ethnicity. Also, households with internal migrants (in Ghana) are more likely to be from rural areas while households with international migrants (in African or other countries) are more likely to be urban.

With respect to remittances, the data suggest that remittances represent an important share of mean income for all three groups of households. Per capita total remittances (including money and goods) represent 5.6 percent of total per capita expenditures for households with no migrants, and 11.0 and 37.8 percent of such expenditures, respectively, for households with internal and international migrants.⁴

In general, the t-test results in Table 3 suggest that while there are differences between the three groups of households with migrants, these differences are not as stark as those in Table 2 for households receiving remittances. For example, households with internal migrants (in Ghana) do not have significantly less human capital than households with no migrants, and even households with international migrants (in African or other countries) do not have more university-educated members than households with no migrants. With respect to expenditure, the t-test results show that there is no significant

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⁴ See note (3), above.

difference in the level of per capita expenditure (excluding remittances) between households with international migrants and households with no migrants.

On the whole, the results for the human capital and expenditure variables in Table 3 suggest that there might be a slight "negative selection" of households with internal migrants, and a more "intermediate selection" of households with international migrants. More sophisticated analysis of the data is needed to confirm both the size and direction of the selection bias for internal and international migrant households in the GLSS 5 (subsample).

4. Non-Migrants and Migrants (All Individuals over age 15), GLSS 5, 2005/06 (subsample)

Since migration is undertaken primarily by individuals, it is important to consider migration (and remittances) at the level of the individual. One of the unique aspects of the GLSS 5 (sub-sample) is that it collected detailed individual-level information on migrants and non-migrants on such key variables as age, gender, education and occupation.

Table 4 compares mean values of various individual-level characteristics for three groups of people: non-migrants, internal migrants (in Ghana) and international migrants (in African or other countries). In this table the size of the sample is all individuals over age 15 in the survey. As shown at the bottom of the table, of the 11,076 people over age 15, 1,354 (12.2 percent) are internal migrants (in Ghana) and 348 (3.1 percent) are international migrants (in African or other countries).

The t-test results in Table 4 suggest that the characteristics of migrants in Ghana are similar to those found in migration surveys done in other regions of the world. On average, when compared to non-migrants, both internal migrants (in Ghana) and international migrants (in African or other countries) are statistically more likely to be younger, male and more educated. With respect to education, while non-migrants have on average only 6.0 years of education, internal and international migrants have 7.0 and 9.1 years of education, respectively.⁵

The higher educational level of migrants is interesting when coupled with results measuring the human capital of households. According to Table 4, while internal and international migrants are more educated than non-migrants, these migrants come from households that (usually) have fewer educated members than those in non-migrant households. For example, both internal and international migrant households have fewer university-educated members than non-migrant households. One possible reason for these results is that internal and international migrants may represent the most educated person within their household. More work is needed on the GLSS 5 (sub-sample) to see if this is true.

Table 4 also suggests that migrant and non-migrant households are significantly different with respect to the gender of household head. When compared to non-migrants, both internal and international migrants are significantly more likely to come from a female-headed household. These findings make sense because (as observed above)

⁵ While internal and international migrants may be more educated than non-migrants in Ghana, since the recorded mean levels of education for migrants in Table 4 are less than senior secondary school, these migrants do not seem to be particularly well-educated when compared to education levels prevailing in many labor-receiving countries.

migrants tend to be male and so, when they leave, these migrants leave behind households which are headed by females.

As in Table 3, the results also show that migrant and non-migrant households are significantly different with respect to ethnicity and area of origin. When compared to non-migrants, both internal and international migrants are significantly more likely to come from an Asante household. When compared to non-migrants, internal migrants are also more likely to come from rural areas, while international migrants are more likely to hail from urban areas.

With respect to expenditures, the t-test results in Table 4 do not suggest any statistical differences between the mean per capita household expenditures (excluding remittances) of non-migrants, internal migrants and international migrants. This is an interesting finding when coupled with earlier findings concerning the per capita expenditure levels of remittance- and non-remittance receiving households (see Table 2). It could be that while there is no difference between the expenditure levels of migrant and non-migrant households at the level of the individual migrant, at the household level households receiving international remittances tend to have higher per capita expenditures because these are "richer" households which are receiving remittances as repayment on past loans. More work is needed on this issue.

5. Characteristics of Internal and International Migrants, GLSS 5 2005/06 (sub-sample)

Table 5 presents mean values on selected individual-level characteristics of internal and international migrants. On average, when compared to internal migrants (in Ghana), international migrants (in African or other countries) are statistically older and

more likely to be male and married. International migrants are also better educated and more likely to have a skilled occupation. These results are similar to those noted in previous tables, namely, that international migrants tend to be more positively selected in relation to education and skills than internal migrants.

On the issue of migrant destinations, it is interesting to note that for internal migrants the capital city (Accra) is <u>not</u> the primary destination: only 25 percent of all internal migrants are working in Accra. Similarly, for international migrants, it appears that other African countries are <u>not</u> the primary destination: fully 68 percent of all international migrants are working in countries <u>outside</u> of Africa. In fact, the two top countries of destination for international migrants are the United States (78 migrants) and the United Kingdom (61 migrants) (not shown). By contrast, only 12 international migrants are working in the large, African oil-producing country of Nigeria. More work needs to be done to identify the reasons why international migrants from Ghana tend to work outside of Africa.

With respect to remittances, it is surprising to note that international migrants are less likely to take out a grant or loan before migration than internal migrants. This result seems counter-intuitive. Since international migration is usually more costly than internal migration, international migrants would generally be expected to be more likely to take out grants/loans to finance migration. More work needs to be done to verify this result.

According to the data, international migrants are statistically more likely to remit than internal migrants. This result seems sensible because international migration is more costly, and so international migrants would be expected to be more likely to remit

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in order to repay the costs of migration. Also, international migrants tend to earn more than internal migrants and this (probably) tends to increase the likelihood of remitting.

As expected, Table 5 shows that international migrants send home <u>much</u> more in total remittances (including money and goods) than internal migrants. On average, the value of total remittances sent home by international migrants is about 19 times that sent home by internal migrants (9,288,924 vs. 491,702 Ghanaian cedis). Since they are out of the country, international migrants also tend to remit more through formal channels – e.g. Western Union, banks, post office – than do internal migrants. However, it is interesting to note that that still less than half of all international migrants -- 43 percent -- remit through formal channels. In Ghana it appears that most migrants prefer to remit through informal channels, that is, through friends and relatives, or by carrying the money home themselves.

Table 5 shows that the proportion of total remittances (including money and goods) that is sent home in the form of cash is much higher for internal as opposed to international migrants. While about 77 percent of the value of total remittances sent home by internal migrants is in the form of cash, the comparative figure for international migrants is only 40 percent. Evidently, the value of non-food goods – e.g. refrigerators, televisions, computers, etc – brought home by international migrants is quite large.

While it is difficult to compare the investment patterns of migrant households without controlling for various factors (like total household income), Table 5 suggests that international migrant households receiving remittances are more likely to save or invest their remittance income. On average, when compared with internal migrant households, international migrant households are statistically more likely after the receipt

of remittances to: open a bank account, open a business or construct a dwelling (to rent out). More work needs to be done on analyzing the investment patterns of migrant households using the Ghana GLSS 5 (sub-sample).

6. <u>Characteristics of International Migrants in Africa and Outside of Africa, GLSS 5</u> 2005/06 (sub-sample)

Since international migrants who are working in Africa may be different from those working outside of Africa, Table 6 compares mean values on selected characteristics for international migrants working in Africa versus those working outside of Africa. 6 In general, the results suggest that there is "positive selection" of international migrants working outside of Africa. On average, when compared to international migrants working in Africa, international migrants working outside of Africa are statistically older, better educated and more likely to have a skilled occupation. These findings suggest that distance from Ghana matters in the selection of international migrants, that is, the further away migrants go to work the better educated and skilled they tend to be.

With respect to remittances, it is surprising to note that international migrants working outside of Africa are less likely to take out a grant or loan before migration than international migrants working in Africa. This result is a bit puzzling because it would seem that international migration outside of Africa is more costly and that therefore international migrants working outside of Africa would be more dependent on

⁶ Comparing the mean values of international migrants working in Africa with those of migrants working outside of Africa raises the problem of limited sample size because the number of international migrants working in Africa is only 111.

loans/grants than migrants working in Africa. More work needs to be done to on this issue.

Table 6 shows that international migrants working outside of Africa are statistically more likely to remit and to remit through formal channels (e.g. Western Union, banks, post office). International migrants working outside of Africa are probably more likely to use formal remittance channels because they are sending home <u>much</u> larger amounts of total remittances (including money and goods). On average, the value of total remittances sent home by international migrants working outside Africa is about 5 times that sent home by international migrants working in Africa (12,500,000 vs. 2,483,042 Ghanaian cedis). For international migrants working outside of Africa, a large proportion of these total remittances (including money and goods) – 64 percent -- is sent home in non-cash form, that is, in the form of non-food goods.

On the use of remittances, Table 6 shows that the only statistical difference between the two groups of international migrants is with respect to investment in business. On average, households with international migrants working outside of Africa are statistically more likely to open a business after the receipt of remittances than households with migrants working in Africa. When compared to households with migrants in Africa, households with international migrants outside of Africa are not more likely to open a store or to construct a dwelling (to rent out).

Table 1. Comparing Household-level Characteristics: Ghana GLSS 4, 1998/99 vs. Ghana GLSS 5, 2005/06 (sub-sample)

Variable	Ghana,	Ghana,	t-test (2005/06 vs.
	1998/99	2005/06	1998/99)
Human Capital			
Number of household members	0.31	0.34	1.66
over age 15 with primary school	(0.58)	(0.60)	
education			
Number of household members	0.73	0.68	-2.73**
over age 15 with junior secondary	(0.90)	(0.88)	
school education			
Number of household members	0.06	0.11	7.65**
over age 15 with senior secondary	(0.28)	(0.37)	
school education			
Number of household members	0.01	0.03	6.59**
over age 15 with university	(0.10)	(0.20)	
education			
Years of schooling of household	5.53	6.50	9.23**
head	(5.06)	(5.22)	
Household Characteristics			
Age of household head (years)	44.93	45.08	0.47
	(15.05)	(15.82)	
Household size	4.31	3.98	-6.19**
	(2.52)	(2.71)	
Number of household males over	1.10	1.09	-0.54
age 15	(0.90)	(0.91)	
Number of household females	1.28	1.22	-3.22**
over age 15	(0.89)	(0.93)	

Table 1 (contd): Comparing Household-level Characteristics: Ghana GLSS 4, 1998/99 vs. Ghana GLSS 5, 2005/06 (sub-sample)

Variable	Ghana, 1998/99	Ghana, 2005/06	t-test (2005/06 vs. 1998/99)
Household Characteristics			
Number of household children	0.69	0.53	-9.20**
under age 5	(0.89)	(0.78)	
Ethnicity			
Head of household is Asante	0.18	0.18	
ethnicity (1=yes)	(0.38)	(0.38)	
Area			
Area (1=urban, 2=rural)	1.63	1.58	-5.03**
	(0.48)	(0.49)	
Remittances			
Number of households receiving	2,139	1,216	
internal remittances (from Ghana)			
Number of households receiving	488	267	
international remittances (from			
African or other countries)			
N	5,998	3,941	

Notes: For Ghana GLSS 4 1998/99, N=5,998 households. For Ghana GLSS 5 2005/06 (sub-sample), N=3,941 households. All values are mean values and weighted; standard deviations in parentheses. Unless otherwise stated, remittances include the transfer of both money and food/non-food goods.

Sources: 1998/99 Ghana Living Standards Survey (GLSS 4) 2005/06 Ghana Living Standards Survey (GLSS 5) (sub-sample) *Significant at the 0.05 level. **Significant at the 0.01 level.

Table 2. Summary Data on Non-Remittance and Remittance-Receiving Households, Ghana GLSS 5, 2005/06 (sub-sample)

Variable	Households with no remittances	Households with internal remittances (from Ghana)	Households with international remittances (from African or other countries)	t-test (Internal remittances vs. no remittances)	t-test (International remittances vs. no remittances)
Human Capital					
Number of household members	0.35	0.32	0.22	-1.29	-3.00**
over age 15 with primary school education	(0.63)	(0.57)	(0.45)		
Number of household members	0.72	0.57	0.86	-4.22**	3.31**
over age 15 with junior secondary school education	(0.90)	(0.79)	(0.92)		
Number of household members	0.11	0.09	0.23	-2.02*	4.81**
over age 15 with senior secondary school education	(0.38)	(0.32)	(0.50)		
Number of household members	0.04	0.01	0.07	-3.33**	3.11**
over age 15 with university education	(0.22)	(0.12)	(0.27)		
Years of schooling of household	6.73	5.46	9.44	-6.90**	8.75**
head	(5.21)	(5.07)	(4.68)		
Household Characteristics	, ,	Ì	, , ,		
Age of household head (years)	43.33	48.51	46.40	9.65**	3.55**
, -	(14.06)	(18.41)	(16.28)		
Household size	4.20	3.67	3.35	-4.79**	-5.12**
	(2.79)	(2.58)	(2.28)		
Number of household males over	1.19	0.91	0.95	-7.80**	-5.11**
age 15	(0.90)	(0.90)	(0.84)		

Table 2 (contd). Summary Data on Non-Remittance and Remittance-Receiving Households, Ghana GLSS 5, 2005/06 (sub-sample)

Table 2 (contd). Summary Data on				ids, Gnana GLSS 5, 20	U5/U6 (sub-sample)
Variable	Households	Households	Households with	, , , , (T , , , 1	1
	with no	with	international	t-test (Internal	t-test (International
	remittances	internal	remittances (from	remittances vs. no	remittances vs. no
		remittances	African or other	remittances)	remittances)
		(from	countries)		
		Ghana)			
Number of household females over	1.23	1.23	1.18	0.72	-0.61
age 15	(0.93)	(0.93)	(0.90)		
Number of household children	0.57	0.49	0.29	-3.08**	-5.75**
under age 5	(0.81)	(0.74)	(0.58)		
Ethnicity					
Head of household is of Asante	0.16	0.18	0.41	0.74	10.39**
ethnicity (1=yes)	(0.36)	(0.38)	(0.49)		
Area					
Area (1=urban, 2=rural)	1.59	1.63	1.25	3.53**	-11.17**
	(0.49)	(0.48)	(0.43)		
Remittances					
Mean annual per capita cash		740,953	2,919,792		
remittances received by household		(2,173,255)	(4,986,290)		
(money only) in Ghanaian cedis					
Mean annual per capita total		982,239	3,488,532		
remittances received by household		(3,186,177)	(5,999,935)		
(including money and goods) in			, , , , , ,		
Ghanaian cedis					
Expenditure					
Mean annual per capita household	6,399,567	4,682,884	8,166,840	-6.73**	2.86**
expenditure (excluding	(7,620,369)	(5,175,182)	(10,400,000)		
remittances) in Ghanaian cedis			, , , , ,		
N	2,509	1,216	267		
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Table 2 (contd). Summary Data on Non-Remittance and Remittance-Receiving Households, Ghana GLSS 5, 2005/06 (subsample)

Notes: N=3,941 households; 51 households receive both internal and international remittances. All values are mean values and weighted; standard deviations in parentheses. Unless otherwise stated, remittances include the transfer of both money and food/non-food goods. In 2006, US\$1.00=9,000 Ghanaian cedis.

Source: 2005/06 Ghana Living Standards Survey (GLSS 5) (sub-sample)

*Significant at the 0.05 level. **Significant at the 0.01 level.

Table 3. Summary Data on Households With and Without Migrants, Ghana GLSS 5, 2005/06 (sub-sample)

Variable	Households	Households	Households with		
	with no	with	international	t-test (Internal	t-test (International
	migrants	internal	migrants (in African	migrants vs. no	migrants vs. no
		migrants	or other countries)	migrants)	migrants)
		(in Ghana)			
Human Capital					
Number of household members	0.33	0.37	0.33	1.49	-0.19
over age 15 with primary school	(0.60)	(0.62)	(0.59)		
education					
Number of household members	0.69	0.66	0.75	-0.67	1.75
over age 15 with junior secondary	(0.87)	(0.90)	(0.85)		
school education					
Number of household members	0.11	0.09	0.23	-0.94	4.25**
over age 15 with senior secondary	(0.37)	(0.33)	(0.51)		
school education					
Number of household members	0.03	0.02	0.02	-1.50	-0.46
over age 15 with university	(0.21)	(0.16)	(0.15)		
education					
Years of schooling of household	6.78	5.00	7.45	-7.70**	3.16**
head	(5.19)	(5.09)	(5.08)		
Household Characteristics					
Age of household head (years)	43.45	51.57	47.62	12.34**	4.16**
-	(15.02)	(17.12)	(17.64)		
Household size	3.92	4.34	3.78	4.72**	-1.27
	(2.65)	(2.95)	(2.49)		
Number of household males over	1.09	1.09	0.93	1.74	-3.09**
age 15	(0.88)	(1.03)	(0.94)		

Table 3 (contd). Summary Data on Households With and Without Migrants, Ghana GLSS 5, 2005/06 (sub-sample)

Variable	Households	Households	Households with		
	with no	with	international	t-test (Internal	t-test (International
	migrants	internal	migrants (in African	migrants vs. no	migrants vs. no
		migrants	or other countries)	migrants)	migrants)
		(in Ghana)	·		
Number of household females over	1.18	1.39	1.34	5.79**	1.67
age 15	(0.90)	(0.99)	(1.00)		
Number of household children	0.53	0.53	0.45	-0.18	-2.03*
under age 5	(0.78)	(0.79)	(0.70)		
Ethnicity					
Head of household is of Asante	0.14	0.26	0.53	6.43**	15.73**
ethnicity (1=yes)	(0.34)	(0.44)	(0.50)		
Area					
Area (1=urban, 2=rural)	1.56	1.71	1.41	8.13**	-4.97**
	(0.49)	(0.45)	(0.49)		
Remittances					
Mean annual per capita cash	273,084	432,233	1,895,641	2.60**	15.11**
remittances received by household	(1,401,685)	(1,256,177)	(4,330,256)		
(money only) in Ghanaian cedis					
Mean annual per capita total	352,567	542,991	2,300,724	1.87	12.66**
remittances received by household	(2,023,814)	(1,435,919)	(5,412,550)		
(including money and goods) in					
Ghanaian cedis					
Expenditure					
Mean annual per capita household	6,278,857	4,923,276	6,080,302	-4.20**	-0.16
expenditure (excluding	(7,615,904)	(4,822,140)	(7,814,113)		
remittances) in Ghanaian cedis	·				
N	3,030	754	234		

Table 3 (contd). Summary Data on Households With and Without Migrants, Ghana GLSS 5, 2005/06 (sub-sample)

Notes: N=3,941 households; 77 households have both internal and international migrants. All values are mean values and weighted; standard deviations in parentheses. Migrants include those household members who are currently living and working (or looking for work) outside the household. Unless otherwise stated, remittances include the transfer of both money and food/non-food goods; households with no migrants can receive remittances because migrants remit to relatives and friends. In 2006, US\$1.00=9,000 Ghanaian cedis.

Source: 2005/06 Ghana Living Standards Survey (GLSS 5) (sub-sample)

*Significant at the 0.05 level. **Significant at the 0.01 level.

Table 4. Comparing Individual-level Characteristics of Non-Migrants and Migrants (All individuals over age 15), Ghana GLSS 5, 2005/06 (sub-sample)

Variable	Non-migrants	Internal	International		
	_	migrants	migrants (in African	t-test (Internal	t-test (International
		(within	or other countries)	migrants vs. no	migrants vs. no
		Ghana)		migrants)	migrants)
Migrant Characteristics					
Age of person (years)	36.95	33.65	36.71	-7.98**	-0.50
	(16.90)	(10.69)	(9.56)		
Gender of person (1=male,	1.53	1.43	1.29	-7.84**	-8.17**
2=female)	(0.50)	(0.49)	(0.45)		
Years of education	6.03	7.01	9.08	6.06**	11.90**
	(4.94)	(4.35)	(3.90)		
Human Capital					
Number of household members	0.45	0.37	0.37	-4.47**	-2.40*
over age 15 with primary school	(0.71)	(0.61)	(0.58)		
education					
Number of household members	0.89	0.68	0.67	-6.27**	-2.54*
over age 15 with junior secondary	(1.06)	(0.90)	(0.82)		
school education					
Number of household members	0.17	0.09	0.23	-5.81**	1.72
over age 15 with senior secondary	(0.49)	(0.32)	(0.50)		
school education					
Number of household members	0.04	0.02	0.03	-3.69**	-1.10
over age 15 with university	(0.24)	(0.15)	(0.16)		
education					
Years of schooling of household	6.29	4.95	7.01	-7.13**	4.40**
head	(5.38)	(5.11)	(5.21)		

Table 4 (contd). Comparing Individual-level Characteristics of Non-Migrants and Migrants (All Individuals over age 15), Ghana GLSS 5, 2005/06 (sub- sample)

Variable	Non-migrants	Internal	International		
		migrants	migrants (in African	t-test (Internal	t-test (International
		(within	or other countries)	migrants vs. no	migrants vs. no
		Ghana)	,	migrants)	migrants)
Household Characteristics					
Age of household head (years)	47.55	54.03	50.11	13.25**	3.49**
	(14.91)	(17.46)	(18.36)		
Gender of household head (1=	1.23	1.40	1.46	12.16**	10.09**
male, 2=female)	(0.42)	(0.49)	(0.50)		
Household size	5.26	4.28	3.89	-10.22**	-8.69**
	(3.18)	(2.84)	(2.41)		
Number of household males over	1.49	1.08	0.87	-11.58**	-10.23**
age 15	(1.15)	(1.01)	(0.90)		
Number of household females over	1.64	1.41	1.40	-7.58**	-5.17**
age 15	(1.12)	(0.99)	(1.02)		
Number of household children	0.61	0.47	0.46	-5.39**	-4.11**
under age 5	(0.86)	(0.76)	(0.70)		
Ethnicity					
Head of household is of Asante	0.16	0.31	0.56	11.96**	20.44**
ethnicity (1=yes)	(0.37)	(0.46)	(0.50)		
Area					
Area (1=urban, 2=rural)	1.60	1.73	1.43	9.50**	-7.61**
	(0.49)	(0.44)	(0.49)		

Table 4 (contd). Comparing Individual-level Characteristics of Non-Migrants and Migrants (All Individuals over age 15), Ghana GLSS 5, 2005/06

Expenditure	Non-migrants	Internal	International	t-test (Internal	t-test (International
		Migrants	migrants (in Africa	migrants vs. No	migrants vs. no
		(within	and other countries)	migrants)	migrants)
		Ghana)			
Mean annual per capita household	5,122,501	4,708,298	5,608,172	-1.65	1.33
expenditure (excluding	(6,582,331)	(4,382,504)	(7,848,086)		
remittances) in Ghanaian cedis					
N	9,372	1,354	348		

Notes: N=11,076 individuals (all individuals over age 15). All values are mean values and weighted; standard deviations in parentheses. Migrants include those household members who are currently living and working (or looking for work) outside the household. Unless otherwise stated, remittances include the transfer of both money and food/non-food goods. In 2006, US\$1.00=9,000 Ghanaian cedis.

Source: 2005/06 Ghana Living Standards Survey (GLSS 5) (sub-sample)

*Significant at the 0.05 level. **Significant at the 0.01 level.

Table 5. Summary Data on Internal and International Migrants, Ghana, GLSS 5 2005/06 (sub-sample)

Variable	Internal migrants	International migrants (in	t-test (International migrants
	(within Ghana)	African or other countries)	vs. Internal migrants)
Migrant Characteristics			
Age (years)	33.65	36.71	5.30**
	(10.69)	(9.56)	
Gender (1=male, 2=female)	1.43	1.29	-3.70**
	(0.49)	(0.45)	
Current marital status	0.65	0.76	4.19**
(1=married)	(0.48)	(0.43)	
Years of education	7.01	9.08	8.78**
	(4.35)	(3.90)	
Occupation before migration	0.07	0.19	6.96**
(1=skilled)	(0.25)	(0.39)	
Years of migration outside	7.94	8.12	1.37
household	(8.03)	(7.33)	
Migrant Destinations			
Number of internal migrants	345		
working in capital city (Accra)			
Number of international		237	
migrants working in countries			
outside of Africa			
Remittances			
Migrant took grant or loan from	0.31	0.23	-3.03**
household to finance migration (1=yes)	(0.46)	(0.42)	

Table 5 (contd). Summary Data on Internal and International Migrants, Ghana, GLSS 5 2005/06 (sub-sample)

Variable	Internal Migrants	International Migrants (in	t-test (International migrants
	(within Ghana)	African or other countries)	vs. Internal migrants)
Remittances			
Migrant remits to household	0.49	0.68	6.40**
(1=yes)	(0.50)	(0.47)	
Method of remitting	0.01	0.43	30.37**
(1=formal, through Western	(0.08)	(0.49)	
Union, banks or post office)			
Mean annual cash remittances	381,320	3,766,806	17.00**
(money only) sent by migrant	(962,214)	(7,311,028)	
in Ghanaian cedis			
Mean annual total remittances	491,702	9,288,924	5.52**
(including money and goods)	(1,271,841)	(6,290,000)	
sent by migrant in Ghanaian			
cedis			
Use of Remittances			
Household opened bank	0.06	0.21	9.19**
account after migration (1=yes)	(0.23)	(0.41)	
Household opened business	0.09	0.17	4.67**
after receipt of remittances	(0.29)	(0.38)	
(1=yes)			
Household opened store after	0.04	0.05	1.39
receipt of remittances (1=yes)	(0.19)	(0.22)	
Household built dwelling to	0.04	0.09	4.14**
rent out after receipt of	(0.19)	(0.29)	
remittances (1=yes)			
N	1,354	348	

Table 5 (contd). Summary Data on Internal and International Migrants, Ghana, GLSS 5 2005/06 (sub-sample)

Notes: All values are mean values and weighted; standard deviations in parentheses. Migrants include those household members who are currently living and working (or looking for work) outside the household. Unless otherwise stated, remittances include the transfer of both money and food/non-food goods. In 2006, US\$1.00=9,000 Ghanaian cedis.

Source: 2005/06 Ghana Living Standards Survey (GLSS 5) (sub-sample)

**Significant at the 0.05 level. **Significant at the 0.01 level.

Table 6. Summary Data on International Migrants in Africa and Outside of Africa, Ghana, GLSS 5 2005/06 (sub-sample)

Variable	International migrants	International migrants (outside	t-test (International migrants,
	(in African countries)	of Africa)	outside Africa vs. International
			migrants, in Africa)
Migrant Characteristics			
Age (years)	35.07	37.48	2.20*
	(10.41)	(9.05)	
Gender (1=male, 2=female)	1.33	1.27	-1.15
	(0.47)	(0.44)	
Current marital status	0.70	0.78	1.64
(1=married)	(0.46)	(0.41)	
Years of education	6.49	10.31	9.54**
	(4.34)	(2.98)	
Occupation before migration	0.07	0.25	4.09**
(1=skilled)	(0.25)	(0.43)	
Years of migration outside	9.27	7.57	-2.02*
household	(8.92)	(6.40)	
Remittances			
Migrant took grant or loan from	0.30	0.20	-2.07*
household to finance migration	(0.46)	(0.40)	
(1=yes)			
Migrant remits to household	0.51	0.76	4.86**
(1=yes)	(0.50)	(0.42)	
Method of remitting (1=formal,	0.09	0.59	9.96**
through Western Union, banks	(0.29)	(0.49)	
or post office)			

Table 6 (contd). Summary Data on International Migrants in Africa and Outside of Africa, Ghana, GLSS 5 2005/06 (sub-sample)

Remittances	International migrants (in African countries)	International migrants (outside of Africa)	t-test (International migrants, outside Africa vs International migrants, in Africa)
Mean annual cash remittances	2,056,938	4,572,129	3.02**
(money only) sent by migrant	(6,321,414)	(7,613,659)	
in Ghanaian cedis			
Mean annual total remittances	2,483,042	12,500,000	11.21**
(including money and goods)	(8,148,879)	(7,590,000)	
sent by migrant in Ghanaian			
cedis			
Use of Remittances			
Household opened bank	0.17	0.23	1.06
account after migration (1=yes)	(0.38)	(0.42)	
Household opened business	0.10	0.20	2.34*
after receipt of remittances	(0.31)	(0.40)	
(1=yes)			
Household opened store after	0.02	0.06	1.63
receipt of remittances (1=yes)	(0.14)	(0.24)	
Household built dwelling to	0.09	0.09	
rent out after receipt of	(0.29)	(0.29)	
remittances (1=yes)			
N	111	237	

Notes: All values are mean values and weighted; standard deviations in parentheses. Migrants include those household members who are currently living and working (or looking for work) outside the household. Unless otherwise stated, remittances include the transfer of both money and food/non-food goods. In 2006, US\$1.00=9,000 Ghanaian cedis.

Table 6 (contd). Summary Data on International Migrants in Africa and Outside of Africa, Ghana, GLSS 5 2005/06 (sub-sample)

Source: 2005/06 Ghana Living Standards Survey (GLSS 5) (sub-sample)

**Significant at the 0.05 level. **Significant at the 0.01 level.

Appendix Table 1. List of Topics of Questions Included in Ghana GLSS 5, 2005/06 (sub-sample)

<u>Section 1</u>: Household Roster (24 questions)

Section 2: Education

- Part A. General Education of Individual (23 questions)
- Part B. Educational Career (9 questions)
- Part C. Literacy, Apprenticeship (15 questions)

Section 3: Health

- Part A. Health of Individual last 2 weeks (21 questions)
- Part B. Preventative Health, Immunization (5 questions)
- Part C. Postnatal Care (11 questions)
- Part D. Fertility, Prenatal Care (22 questions)
- Part E. Contraceptive Use, HIV/AIDS (13 questions)
- Part F. Insurance (9 questions)

Section 4: Employment and Time Use

- Part A. Activity Status, Main Occupation of Individual (32 questions)
- Part B. Secondary Occupation (20 questions)
- Part C. Underemployment last 7 days (5 questions)
- Part D. Unemployment last 7 days (11 questions)
- Part E. Characteristics Main Occupation (29 questions)
- Part F. Secondary Occupation (15 questions)
- Part G. Employment Search last 12 months (7 questions)
- Part H. Housekeeping (13 questions)

Section 5A. Migration (11 questions)

Section 5B. Domestic, Outbound Tourism (18 questions)

Appendix Table 1 (contd). List of Topics of Questions Included in Ghana GLSS 5, 2005/06 (sub-sample)

Section 6. Identification of Respondents (8 questions)

Section 7. Housing of Household

- Part A. Type of Dwelling (3 questions)
- Part B. Occupancy Status (2 questions)
- Part C. Housing Expenses (7 questions)
- Part D. Utilities (17 questions)
- Part E. Technology (2 questions)
- Part F. Physical Characteristics (6 questions)

Section 8. Agriculture

- Part A. Assets Land, Livestock (38 questions)
- Part B. Farm Details (13 questions)
- Part C. Harvest Crops (28 questions)
- Part D. Seasonality of Sales (6 questions)
- Part E. Other Agricultural Income (8 questions)
- Part F. Agricultural Costs, Expenses (4 questions)
- Part G. Processing Agricultural Produce (13 questions)
- Part H. Consume Own Produce (14 questions)

Section 9. Household Expenditure (Food and Non-Food)

- Part A. Non-Food Expenses (243 items)
- Part B. Food Expenses (277 items)
- Part C. Availability of Selected Items (14 items)

Section 11. Income Transfers, Misc Income

- Part A. Transfers Made by Household (14 questions)
- Part B. Transfers Received by Household (14 questions)
- <u>Part C</u>. Misc Income from Government, Other Sources (6 questions)

Appendix Table 1 (contd). List of Topics of Questions Included in Ghana GLSS 5, 2005/06 (sub-sample)

Section 11. Income Transfers, Misc Income

Part D. Misc Expenditures (5 questions)

Part E. Migration, Remittances – Last 5 Years (12 questions)

<u>Part F.</u> Migration, Remittances – Current Migrant (29 questions)

<u>Part G.</u> Migration, Remittances – Improvements to Dwelling (3 questions)

Section 12. Credit, Assets and Savings

Part A. Credit (12 questions)

Part B. Assets, Durable Consumer Goods (4 questions)

Part C. Savings (7 questions)