

USING LSMS TO MEASURE INTER-RELATIONSHIPS BETWEEN MIGRATION AND POVERTY

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SUMMARY

- A major problem in investigating the relationships between migration and poverty has been the lack of available representative sample datasets that identify migrants and non-migrants, allowing comparisons to be made between the two groups.

This *Briefing* focuses on one useful source of data — the Living Standards Measurement Surveys (LSMS). LSMS are household income and expenditure surveys carried out in developing countries by national statistical offices in conjunction with the World Bank. Data are currently available for 28 developing countries — for some of these countries there are multiple survey years.

The advantages of LSMS for studying migration

The LSMS have a number of advantages in terms of the analysis of migration and poverty. They are nationally representative sample datasets of generally high quality, and often conducted in a series of rounds that allows the comparison of poverty and migration over time - although they are not usually panel surveys (ie. they do not re-interview the same people over time). In addition, these datasets are generally quite large, often at around 5,000 respondent households (different for different countries), and cover a wide range of measures, including income and consumption (usually including remittance transfers to and from other households), health, education, employment, savings and assets, as well as questions on the migration behaviour of respondents. Price and community questionnaires are conducted in tandem with the household surveys, allowing comparisons of costs of living to be made across locations, and providing useful information on local amenities such as health facilities and schools.

Table 1 (overleaf) shows the regional distribution of countries for which LSMS data are now publicly available, as well as survey years, sample size and whether there is a migration section. Notably few LSMS are available for sub-Saharan Africa. Most surveys have a separate migration section for individual household members, and if not, collect some information on population movement.

Migration in the LSMS

The migration section of the LSMS questionnaires defines migrants broadly as all those who were not born in their current residence, or if they were, those who have lived elsewhere during their lifetimes; for some more recent surveys the latter is specified to include only those who have lived elsewhere for a period of 12 months or longer. Those born outside their place of current residence (and have not been away and returned since) can be classified as in-migrants, whilst those who have lived outside their place of current residence are, return migrants. Within these categories, it is possible to identify different kinds of movement, including internal and international movement, and urban-urban, rural-urban, urban-rural and rural-rural movements. The questionnaire also contains questions on the number of years residing in the current dwelling, and the reasons for moving, which may allow identification of employment, marriage, other family, drought/war and other reasons for migration. Finally, respondents may be asked about their employment in their previous place of residence.

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Table 1: Countries for which LSMS data are available

REGION/COUNTRY	YEAR OF SURVEY	SAMPLE SIZE	SEPARATE MIGRATION SECTION?
Europe and Central Asia			
Albania	1996	1,500	Can identify when individual moved to household, and also where former household members reside (see also remittance section)
Armenia	1996	5,000	Yes, section on international emigrants from the household
Azerbaijan	1995	2,000	Yes
Bulgaria	1995, 97	2,500	Yes
FR Yugoslavia-Kosovo	2000	2,900	No, but questions on displacement of household members
Kazakhstan	1996	2,000	Yes
Kyrgyz Republic	1993, 96, 97, 98	2,000	Yes
Romania	1994	36,000	Yes
Russia	1992	6,500	Yes
Tajikistan	1999	2,000	Yes
Latin America and the Caribbean			
Brazil	1996	4,500	Yes
Ecuador	1994, 95, 98	4,500-5,800	Yes
Guatemala	2000	8,000	Yes
Guyana	1992	5,300	Yes
Jamaica	1988-98 (annually)	2,000-7,300	No
Nicaragua	1993, 98	4,200	Yes
Panama	1997	5,000	Yes
Peru	1985, 90, 91, 94	1,500-5,100	Yes
North Africa			
Morocco	1991	3,300	Yes
South Asia			
India (Uttar Pradesh and Bihar)	1997	2,250	No, but can identify where individual worked in past year
Nepal	1996	3,500	Yes
Pakistan	1991	4,800	Yes
South East Asia			
Papua New Guinea	1996	1,500	No, but information on where born and number of months spent away in past year
Vietnam	1992, 1997	5,000-6,000	Yes
Sub-Saharan Africa			
Cote d'Ivoire	1985-88 (annually)	1,600	Yes
Ghana	1987, 88, 91, 98	3,000-6,000	Yes
South Africa	1993	9,000	No, but can identify whether individuals have moved in last 5 years and where was previous residence
Tanzania	1993	5,000	No, but can identify how long household has lived in current location.

Source: <http://www.worldbank.org/lms>

Alternative sources of migration data

The most obvious source of statistical information on migration is provided by national censuses, which often record information on past place of residence which allows internal migration tables to be established. Some countries, such as Australia, Canada, the US and New Zealand, also have longitudinal surveys, although these are rare in developing countries. Another possible source is the Demographic and Health Survey (DHS) data now collected for many poorer countries. A study using this source is provided by Brockerhoff, M (1994) The impact of rural-urban migration on child survival, *Health Transition Review*, 4: 127-49

Possible methods of analysis

First, and most obviously, the LSMS allow quantification of the total number of people who can be considered as migrants in each of a series of categories, allowing cross-tabulation of different kinds of migration with other factors, such as employment, levels of education, education enrolment ratios, health status and incidence of poverty. It is also possible to conduct regression analysis, for example using a poverty probit model, to separate out the correlation between migration and poverty whilst controlling for the impact of other factors on poverty (see Box: Using the Ghana LSMS).

Using the Ghana LSMS

The migration section of the Ghana LSMS — completed by all adult households (aged 15 and over) enables researchers to differentiate migrants from non-migrants. Migrants are defined as those who either were not born in their current residence (in-migrants) or those who had left their place of birth for a period over 12 months, but had now returned (return migrants). It is also possible to distinguish internal from international migrants, the primary motive for migration, and the number of years for which they have been living in their current place of residence

What does the Ghana LSMS tell us?

Data from surveys in 1991/92 and 1998/99 show that over half the adult population of Ghana has migrated at some time in the past — that is about 4.5 million people in 1991/92 and 5.5 million in 1998/99. About 45 per cent of these migrants are returnees. The majority (93 per cent in 1998/99) moved internally, leaving only about 7 per cent (350,000 people) who have returned from outside Ghana. These international returnees have mainly come from neighbouring countries — Cote d'Ivoire, Burkina Faso, Mali, Nigeria or Togo. Surprisingly, rural-urban migrants make up only a small minority (9 per cent) of internal migrants. The remainder have migrated equally from urban to rural areas, from rural to rural areas, or from urban to urban locations. As would be expected, most rural to urban migrants are in-migrants, whilst most international migrants are returnees.

There seems to have been relatively little change in migration rates over time, with 5-10 per cent of migrants of each type migrating in the year before each of the two survey dates. However, of those migrating from international locations outside the West African region, the proportion who moved in the previous year fell dramatically from 10 per cent in the year before 1991/92 to just two per cent in the year before 1998/99. This may reflect poor expectations of returns in the late 1990s (or better prospects abroad), although it may also be explained by the small sample size (only 55 of those interviewed in 1991/92, and 75 interviewees in 1998/99, were international returnees from outside the region).

The most common reason given for migration was family reasons (over 40 per cent). The next most important reason was own employment (14 per cent in 1991/92, rising to 21 per cent in 1998/99). In-migrants were more likely to move for employment reasons than returnees. The number of people internationally displaced by drought or war was dramatically higher in 1998/99 than in the previous survey, with the sample

indicating that an estimated 35,000 people had moved to Ghana (or had returned to Ghana) for these reasons that year.

Migrants were found to be older and more highly educated than non-migrants, and this was particularly true for household heads, and international returnees, both of whom were also more likely to be male.

Relationships between migration and poverty

It is possible to use the Ghana LSMS to explore the relationship between migration and poverty. To do this, we need to know:

- 1) The poverty line — defined here as below as 700,000 cedis (about US\$85) per annum, reflecting minimum nutritional requirements (this indicates extreme poverty);
- 2) A welfare metric — defined as real annual household consumption per equivalent adult (these follow GSS, 2000)

Based on these definitions, the incidence of poverty can be calculated for the population as a whole, and for migrants and non-migrants. Analysis of the Ghana LSMS found that poverty incidence was lower amongst households where the household head was a migrant. However, incidence of poverty declined generally over the decade, and fell by a greater proportion amongst non-migrants, suggesting that the non-migrants were catching up with migrants. Most groups of migrants did see some decline in levels of poverty, although internal returnees saw a slight increase in levels of poverty.

Probit regression analysis was performed to separate the correlation between the migration of the economic head and poverty of the household, from other likely correlated factors such as education, household composition and employment group. Results indicate that whilst migration of the household head was broadly associated with a reduced probability of being poor in 1991/92, the relationship was insignificant in 1998/99, once other factors were controlled for. This reinforces the observation that non-migrants were catching up at this poverty line. More rigorous analysis showed that in both survey years, those who had migrated longer ago were less likely to be poor, especially those now living in rural areas. International migrants were also less likely to be poor than other groups.

Sources:

Ghana LSMS (1991/92 and 1998/99)
Ghana Statistical Survey (GSS) (2000)

Limitations

The most obvious problem in using LSMS — or indeed any other kind of sample survey — to measure the relationship between migration and poverty is that it is very difficult to comment directly on the issue of causality. For example, overall, data from the 1991/92 Ghana Living Standards Survey show migration of a household head as a significant predictor of lower levels of extreme poverty, yet we cannot tell whether this is because migration represents a route out of poverty, or simply because the less poor are more able to migrate and/or more likely to benefit (e.g. because of factors affecting labour market prospects such as ability, educational attainment, social ties, etc.). By not accounting for these factors our estimates are likely to over-state economic 'returns' to migration. The Ghana surveys show the relationship between migration and poverty to be disappearing over time, but we cannot tell whether this is because migrants became poorer, or because the poor were forced (or more able) to migrate more.

To answer questions of causality, it is necessary to perform more advanced statistical procedures, such as to instrument the migration variable with

other variable(s) not correlated with poverty probability, or, more commonly, censored regression, which accounts for selectivity of the migration decision. An alternative would be to combine analysis of LSMS or other large sample surveys with other available data. For example, in analysing whether it is the less poor who are more able to migrate, one option would be to look at village level studies that explore in a more detailed way how avenues to migration are opened or closed, and how this has changed over time. Meanwhile, the question of whether migrants become less poor could be explored through a panel survey, in which individual/household poverty levels are tracked over time. However, whilst there are a fair number of village level studies available in many migrant-producing areas of the developing world, longitudinal panel surveys are much more rare.

Another limitation is that although LSMS (and other surveys such as DHS) provide a representative sample of the population as a whole, it is not necessarily the case that the migrants included in the sample are representative of all migrants.

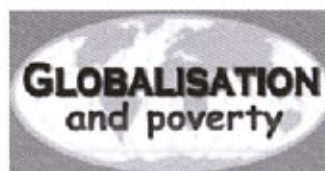
Further reading

Ghana Statistical Service (GSS), 2000 *Poverty Trends in Ghana in the 1990s*.

Litchfield, J. and Waddington, H., 2002, *Migration and Poverty: Evidence from the Ghana Living Standards Survey, Sussex Migration Working Paper no. 10*

Also visit: www.geog.sussex.ac.uk/transrede

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