

EMPLOYMENT, THE INFORMAL SECTOR, AND POVERTY: DATA AND ANALYTICAL CHALLENGES

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SUMMARY

The importance of improving data on employment-poverty linkages should not be underestimated. Without a better understanding of these relationships, development strategies aimed at poverty reduction may be incomplete, misdirected, or unsustainable. Improvements in data that allow analysis of the employment-poverty nexus is essential if this challenge is to be overcome and appropriate policies implemented. This report identifies major conceptual and measurement issues associated with linking informal employment to poverty outcomes and suggests ways to address these challenges. The three major challenges discussed in detail are: (1) bridging individual-level and household-level analysis; (2) forging linkages between different sources of data and types of surveys; and (3) improving measures of earnings and poverty. The report then provides concrete examples of how existing datasets have been analyzed with regard to the linkages between informal employment, the informal sector, and poverty outcomes. The report highlights steps that must be taken if such analysis were to be adapted and applied more generally.

I. INTRODUCTION

Employment is the primary channel through which economic growth reduces poverty. When employment opportunities improve as economic activity expands, the benefits of growth will be broadly shared. However, access to employment is not sufficient. Currently, estimates from the ILO suggest that over 500 million employed individuals worldwide live in households that fall below the dollar-a-day poverty line (Kapsos, 2004). Therefore, the quality of employment also matters.

Informal employment represents a large share of total employment in many Asian countries. Moreover, informal employment is, on average, precarious, low-paid, and risky. Therefore, understanding the links between informal employment, poverty, and human development are critical for formulating policy. Despite this reality, data and information sources are frequently inadequate for achieving this objective. This report identifies major conceptual and measurement issues associated with linking informal employment to poverty outcomes and suggests ways in which the current situation may be improved.

If China and India are to develop workable strategies for achieving their development objectives, employment must feature prominently in their data collection and policy analysis efforts. Employment dynamics in developing countries are complex. The formal/informal dualism, so often used to analyze employment in developing countries, represents only one aspect of this complexity. Labour markets are frequently segmented along multiple dimensions: the formal/informal divide, gender, employment status, region, and sector. Vulnerable workers are often trapped in the most precarious forms of employment, and employment interacts with household structures to determine the overall risk of poverty. Existing data sources often do not have sufficient information for adequately analyzing *all* forms of employment and are not integrated enough to understand the linkages between workers, households, and enterprises essential for designing effective policies.

Improvements in data and information systems on informal employment and poverty require on-going exchanges between the producers of data (statisticians) and users of data (policy-makers, analysts, academics, and NGOs). Users of statistics often have concrete knowledge of where gaps exist within the existing data and the analytical

approach used in applied research. Producers have detailed knowledge of statistical methodology and are well-practiced in formulating definitions and precise conceptual frameworks. Input from both the demand-side (users) and the supply-side (producers) is required for successful improvements in data resources. This report draws on lessons learned from both groups in presenting the relevant issues.

One of the central messages of this paper is that an understanding of the connections between employment and poverty requires analysis of the full employment structure of a country. Focusing on only one aspect of the employment structure – e.g. self-employed workers in small-scale enterprises – will necessarily produce an incomplete picture. All forms of employment need to be recognized, and this approach should form the basis for revising the ways in which surveys are designed, data collected, and statistical information analyzed.

Before moving into a discussion of the core issues, it is important to be clear on the definitions used in this report. Consistent with the recommendations and guidelines of the 15th and the 17th International Conferences of Labour Statisticians (ICLS), employment in the “informal sector” and “informal employment” refer to distinct concepts. “Informal sector” is an enterprise-based concept of informal economic activities which includes both informal own-account enterprises and enterprises of informal employees. In the ICLS recommendation, informal enterprises may be defined, depending on national circumstances, by various criteria. In practice, informal enterprises are most frequently identified by (1) registration status (is the firm registered with a government/regulatory agency?); (2) size – typically firms with fewer than 5-10 employees; or (3) a combination of registration status and size.

“Informal employment” refers to a broader, job-based concept of informal activities. Informal employment is comprised of (1) workers in the informal sector (including own-account workers and unpaid workers on family enterprises) plus (2) workers in informal jobs in formal sector enterprises as well as paid domestic workers in households. The informal status of a job is typically determined by whether the worker in that job has access to a defined set of social protections (typically, indicators such as paid leave, an employer-provided pension, and/or contributions to a social security fund).

Alternatively, jobs are sometimes determined to be informal or formal based on the existence of a written, or enforceable, contract.¹

II. MEASUREMENT CHALLENGES IN LINKING INFORMAL EMPLOYMENT AND INFORMAL SECTOR ACTIVITIES TO POVERTY

Numerous analytical and measurement challenges exist in linking employment and informal sector activities to poverty outcomes. We examine three broad categories in this paper: (1) bridging the gap between individual-level and household-level analysis; (2) linking data on employment to data on income and expenditures; and (3) improving measurements of earnings and poverty.

Bridging the gap: individual and household level analysis

Data on employment and productive activities – including both self-employment and wage employment – is measured at the individual level. In contrast, indicators of poverty are usually based on household level analysis. This is particularly true for measurements of income poverty. A household is said to be income poor if household income from all sources falls below a threshold that represents a minimum standard of living – the poverty line. Often, poverty lines are defined in terms of the level of consumption necessary to meet a household’s basic needs (often a nutritional standard is used). Poverty lines are adjusted for household composition and size, often using the concept of “adult equivalents”. Therefore, income poverty status is determined relative to household-level factors.

Difficulties arise when employment (an individual-level measurement) is linked to poverty status (a household-level measurement). One common approach of linking employment and poverty is to examine estimates of the size of the “working poor” population, defined as employed individuals who live below the poverty line. The idea of the “working poor” is a useful construct, but it has important limitations. The concept of a “working poor” poverty rate directly links poverty risk with individuals’ employment positions. It therefore connects poverty status to labour market dynamics in a way that is

¹ For a more thorough discussion of the guidelines concerning a statistical definition of informal employment of the 17th ICLS, see Husmanns (2004).

helpful for policy analysis. However, there are drawbacks to relying on this approach alone. For example, employed women may have lower poverty rates than employed men in similar categories of employment, even when the quality of employment is far worse for women than men (Chen, *et al.*, 2005). Why? The fact that women are employed can affect the household's poverty status. Despite the low quality of employment, women's earnings make a crucial difference in determining whether a household is poor or not.

Alternatively, poverty analysis can be carried out at the household level and the role of employment income from different types of employment could be incorporated into the analysis. This approach avoids some of the ambiguities of the "working poor" framework. However, while household-level analysis is better for understanding poverty dynamics, it is not sufficient to identify patterns of labour market segmentation and barriers to economic mobility that determine which opportunities are available to individual earners and the distributive outcomes associated with these constraints. This is particularly important for gender-sensitive analysis of employment and poverty.

Intra-household dynamics are important for understanding employment and poverty linkages. Control over income and decision-making in the household has a profound influence over the distribution of resources and human development outcomes. For example, in some cases women in female-headed households may face fewer labour market constraints and exert more direct control over employment income than other households (Chant, 2003). This may improve poverty outcomes, even if women are disadvantaged in the labour market. Women may improve their welfare in other ways by leaving male-dominated households – e.g. by escaping domestic violence.

This suggests that a full picture of the complex linkages between employment, productive activities, and poverty requires analysis at three levels: at the level of the individual, at the level of intra-household dynamics, and at the level of the household. The ultimate goal for survey design and data collection is clear: sufficient data need to be available to analyze income and labour market dynamics at all three levels.

Forging linkages: data on employment, informal enterprises, and household income.

Analysis of the linkages among employment – in particular informal employment – the informal sector, and poverty are difficult since data on each of the three topics are

usually collected in different types of surveys which are not integrated. Labour force surveys are household surveys which collect data on status in and characteristics of employment. Establishment surveys or economic censuses are based on the economic unit and have the potential of collecting data on informal sector units if they cover *all* establishments. However small own account units are often poorly enumerated in establishment surveys and economic censuses. Income and expenditure surveys are also household based surveys that are used in poverty analysis, but the collection of detailed data relevant for analyzing informal employment and the informal sector is usually so time-consuming and costly that it is not possible to collect detailed labour force data in the same survey. Further, additional complexity is introduced because informal employment and employment in the informal sector are new topics in labour force surveys. Although these different data sources are usually not integrated, they can be. If different surveys are designed to correspond in terms of dates, coverage definitions and classification, joint analysis is possible.

The joint analysis of these topics can also be provided for in the design of a single survey if such analysis is a measurement objective. The 55th Round of the Indian National Sample Survey, the 1999-2000 Employment and Unemployment Survey (EUES) provides an excellent example of this strategy.² In this particular survey, the National Sample Survey – for the first time – asked certain probing questions of usual status workers on specific features of the enterprises in which they worked. In addition the survey made it possible to identify the members of the household who were employed (including their status in employment) as usual status workers separately in informal and formal sector enterprises. This facilitates analysis of data according to the categories formal employment, informal sector employment and informal employment outside the informal sector.

In addition, the survey collected – through an abridged worksheet – the consumption expenditure of the household of the worker. These data are used as a proxy to income of household and form the basis of estimates of poverty. Generally consumer expenditure schedules are much longer and are canvassed in a different set of sample households than the EUES. However, for the 1999-2000 survey, a one-page worksheet

² This discussion is based on Sastry (2004, pp. 6-8, 21-2).

with 32 items of consumption was specified. Tests and adjustments of the data were made based on the regular Consumer Expenditure Survey. As a result of the findings of these tests, the data were used for obtaining valid and reliable comparisons on the links between poverty, employment in the informal sector and gender.

The importance of research linking employment in the informal sector with poverty and gender has been highlighted by the Government of India and by the Expert Group on Informal Sector Statistics (the Delhi Group), specifically at its meetings in 2002, 2005 and 2006. Following these recommendations and the successful use of data from the earlier survey, similar features were incorporated in the design of the 2004-2005 (61st round) of the EUES.

A multi-purpose survey, such as the World Bank Living Standards Measurement Survey (LSMS), which includes questions on both employment and income and/or consumer expenditures may also provide data for research linking employment – including informal and formal employment – to poverty. Such an approach was undertaken with the 1998/1999 Ghana Living Standards Survey (GLSS 4). The fifth round (2005/6) of the GLSS adds a separate module on non-farm household enterprises to collect data on individual-owned enterprises with particular focus on small economic units. The resulting data will make it possible to analyze the linkages between informal sector enterprises and poverty outcomes.

Improving measurements of income and poverty

A country's employment structure is linked to poverty outcomes through the channel of employment income and earnings. Employment income and earnings are important variables in understanding economic well being and poverty. Greater priority needs to be placed on the collection and analysis of data on total income earned from employment – including self-employment as well as wage employment. Particular methodological challenges are associated with measuring earnings from self-employment.. These are:

1. What is the best measure of income from self-employment?

2. How can the undervalued contributions from unpaid workers on family enterprises be addressed?

Household living standards or labour force surveys generally use two different approaches to measure income (net revenues) from self-employment. Often these produce markedly different results:

- i. Method 1. Have respondents estimate total receipts/revenues and total expenses/expenditures (including the market value of non-monetary revenues and expenses). Self-employment income then equals total receipts less total expenses.*
- ii. Method 2. Have respondents estimate their net income from business/enterprise activities directly. That is, ask respondents to estimate how much income they derive over a particular period of time from their self-employment activities.*

The value of output produced, but consumed by the household, and/or the value of non-monetary income, revenues, or expenses (e.g. payments in-kind) should be included in the estimates of income, whenever possible.

Often, the direct reporting of income produces more consistent estimates of earnings from informal self-employment than attempting to account for all revenues and expenses. In some cases, estimates of revenues and expenses are not available, leaving Method 2 as the only choice. However, even when Method 1 and Method 2 are both feasible, Method 2 often yields more credible estimates. Theoretically, Method 1 should provide us with more accurate results. If careful records were kept of revenues and expenses, this technique would give us the best estimate of income derived explicitly from self-employment. The risk with Method 2 is that individuals may confuse personal expenditures with operating expenditures if simply asked to estimate a figure.

However, the informal self-employed rarely keep detailed accounts of business receipts and expenses. Instead, estimates of revenues and costs were based on recall. The principal problem is that respondents often fail to accurately report receipts and expenses. Specifically, receipts tend to be understated and expenses overstated.

A second issue concerning the measurement of earnings from informal self-employment concerns unpaid workers on family enterprises. The labour of unpaid family workers contributes to self-employment income, but no earnings are reported for these individuals. Instead, all earnings from self-employment are ascribed to a single individual. This introduces several problems for the measurement of earnings from self-employment which must be addressed. Specifically, the fact that unpaid contributing family members contributed to overall income, but these contributions are not recorded, tends to (a) erase the contributions of unpaid workers to employment income and (b) overstate the earnings/returns to labour of the person to which all income is ascribed.

In many cases, information on the hours worked by unpaid workers on family enterprises are not recorded, or a limited number of observations are available. If researchers do not know (even approximately) the hours worked by unpaid workers, it becomes impossible to ascribe a value to their economic contribution. An added challenge is that, even when researchers know the hours of work of the unpaid family workers, there is rarely any information about their productivity. Estimating productivity differentials is beyond the scope of most household surveys.

Self-employment income can be adjusted based on the contribution of unpaid workers on family enterprises. To make the adjustment, it must be assumed that productivity is the same among the various workers in any given family enterprise. Average earnings per hour worked (for both paid and unpaid workers) can be calculated for the enterprise as a whole. This average rate can be used to estimate (1) imputed earnings for unpaid family workers and (2) a corrected value for the income earned by the individual to which all earnings were ascribed.

This discussion of the measurement of earnings as an important channel connecting employment to poverty status raises an additional concern. Household income represents only one dimension of poverty. Moreover, securing adequate household income should not be seen as an end unto itself, but is instrumental for achieving human development objectives – adequate food and shelter, a basic level of education, access to decent and rewarding work, protection against and treatment for illnesses and disease, provision of services for the disabled, and equality of opportunity. Adequate income may not guarantee freedom from various forms of deprivation. Moreover, the link

between income and human development varies enormously from one context to another. Therefore, it is important to supplement measures of earnings with other human development indicators – e.g. access to healthcare, literacy rates, sanitation, access to basic services such as water or electricity, and adequate shelter/housing. These human development indicators can be used to supplement the analysis of income poverty tied to employment.

III. EMPIRICAL EXAMPLES: LINKING INFORMAL EMPLOYMENT TO POVERTY

This section provides concrete examples of how existing datasets may be analyzed with regard to the linkages between informal employment, the informal sector, and poverty outcomes. The examples featured use data from countries for which some of the measurement issues outlined in the previous section have been addressed. Specifically, the research summarized below is based on micro-level datasets that contain sufficient information on employment status, informality, and household employment earnings and income to undertake this kind of analysis. The degree to which the complete set of measurement issues identified earlier is addressed varies from country to country. For producers of statistics, the examples help to illustrate why the measurement issues discussed in the last section are so important. For users of statistics, the examples provide some models of the type of analysis that is possible for linking informal employment to poverty outcomes.

The analysis of the employment-poverty nexus is divided into three parts:

- (1) describing the employment structure of a country along multiple dimensions;
- (2) documenting differences in the quality of employment (the featured examples focus on earnings);
- (3) bridging the individual-level and household-level approaches to connect employment structures to poverty outcomes.

For the employment-poverty connections, the examples highlight two approaches: (1) estimating “working poor” poverty rates and (2) estimating household poverty rates based on sources of employment income.

The examples represented here are drawn from the findings of research commissioned for the UNIFEM publication *Progress of the World’s Women: Women, Work, and Poverty* (Chen, *et al.*, 2005) and analysis of India’s employment structure by N.S. Sastry (2004). These studies use existing micro datasets to better understand each country’s employment structure along various dimensions – the formal/informal divide, segmentation within both the formal and informal economies, and differences between men’s and women’s paid employment. The country studies include six developing countries – Costa Rica, Egypt, El Salvador, Ghana, India, and South Africa. Many of the techniques used in these studies could be applied to ESCAP countries that have similar micro-level data. Table 1 summarizes the data sources used in these studies.

Table 1

<i>Countries</i>	<i>Survey Data</i>
<i>Costa Rica</i>	Multi-purpose Household Survey, 2003. (<i>Encuesta Permanente de Hogares de Propósitos Múltiples</i>).
<i>Egypt</i>	Egyptian Labour Market Survey, 1998.
<i>El Salvador</i>	Multi-purpose Household Survey, 2003. (<i>Encuesta de Hogares de Propósitos Múltiples</i>).
<i>Ghana</i>	Ghana Living Standards Survey, fourth round, 1998/9.
<i>India</i>	National Sample Survey, 55 th round, 1999/2000.
<i>South Africa</i>	Labour Force Survey, 2003.

Describing a country’s employment structure

As discussed earlier, one of the principal challenges in linking employment to poverty outcomes is the need to characterize the overall employment structure of a country. The employment structure includes the division between formal and informal employment, and the relevant divisions within the broad categories of “formal” and “informal.” In the country case studies, informal employment was defined to include: (1) employment in the informal sector (using the enterprise-based approach, defined either in terms of registration or firm size) and (2) employment in informal jobs (using social protection criteria). The tables featured in this section use the relevant set of criteria to characterize employment as either formal or informal across different employment status categories – e.g. self-employment (enterprise-based) or wage employment (job-based). Registration of enterprises was used to define the informal sector for Egypt, Ghana, India,

and South Africa. Size was used for Costa Rica and El Salvador. The social protection criteria included one or more of the following: existence of paid leave, existence of a pension scheme, and/or whether employers made contributions to a social security fund. The precise set of indicators used varied from country to country and depended on data availability.

Table 2 shows the shares of women's and men's formal and informal employment for both agricultural and non-agricultural activities.

Table 2. Share of women's and men's total employment (percent).

		Formal			Informal			Total
		All	Non-Ag	Ag	All	Non-Ag	Ag	
Costa Rica (2003)	Women	51.4	49.1	2.3	48.6	46.9	1.7	100
	Men	56.0	48.7	7.3	44.0	30.4	13.6	100
Egypt (1998)	Women	21.6	21.5	0.1	78.4	10.2	68.1	100
	Men	49.1	47.8	1.3	50.9	30.1	20.8	100
El Salvador (2003)	Women	30.2	30.1	0.1	69.8	66.3	3.5	100
	Men	30.0	29.2	0.8	70.0	43.6	26.4	100
Ghana (1998/9)	Women	6.1	6.0	0.1	93.9	44.3	49.6	100
	Men	12.0	0.5	11.5	88.0	29.7	58.3	100
India (1999/2000)	Women	4.9	4.1	0.8	95.1	18.9	76.2	100
	Men	10.5	9.3	1.2	89.5	34.8	54.8	100
South Africa (2003)	Women	31.3	30.4	0.9	68.7	61.4	7.3	100
	Men	43.4	40.8	2.6	56.6	42.8	13.8	100

Source: Chen et al., 2005.

Table 2 demonstrates why it is important to characterize the overall employment structure of a given country when examining the linkages between employment and poverty. Different countries have distinct employment structures. In all cases, informal employment is sizeable, but its importance varies – accounting for 44 to 95 percent of all employment. Men are generally more likely to have access to formal employment than women. In most of the countries examined here, women are disproportionately represented in non-agricultural informal employment. Informal agricultural activities are somewhat different, with a larger fraction of men employed compared to women. However, there are two notable exceptions: Egypt and India.

A simple dualist framework, in which employment is classified as either formal or informal, is not sufficient for understanding the connections between informal employment and poverty. The detailed structure of informal employment must also be analyzed. Table 3 shows how this may be done. The table presents information on the

composition of informal employment – agricultural and non-agricultural – for men and women in the six developing countries. Informal employment is further divided into categories based on employment status – that is, whether individuals are employers, own-account workers, wage employees, unpaid workers on family enterprises, or domestic workers. Again - the structure of informal employment varies significantly from country to country, and is strongly influenced by gender dynamics.

Table 3 about here

For example, women are more likely to work as own-account workers, domestic workers, and unpaid contributing workers in family enterprises than are men. In contrast, men are more likely to work as employers and wage workers. In general, women are concentrated in the more precarious and lower-quality forms of non-agricultural, informal employment. In Egypt and India, where a large share of women's employment is in agricultural activities, it is particularly crucial to take the employment structure into account. In both of these countries, a large share (84.6 percent in Egypt and 34.4 percent in India) of women's informal employment is as unpaid workers on family agricultural enterprises. These distinctions with respect to the employment structure are critical in understanding the risk of poverty men and women in different economic circumstances face.

Documenting differences in the quality of employment

Measuring the quality of employment is essential for understanding poverty outcomes. Perhaps the most commonly used gauge of the quality of employment is average earnings. Table 4 shows relative hourly earnings by employment status category.³ Since hours of work vary dramatically between different categories of employment, it is important to standardize earnings. Hourly or daily earnings are

³ There are uncertainties to measuring earnings that should be kept in mind when interpreting these results. Earnings from formal employment are likely to be underestimated, as people frequently do not know the value of non-monetary earnings. Also, employment at the lower end of the distribution may be underrepresented in these earnings estimations, since a significant number of workers report no earnings and thus are not included in the calculations. Therefore, the "n.a." in Table 4 might represent a lack of adequate information rather than limited employment in low-income activities.

frequently used. In the research featured here, earnings from self-employment reflect net earnings as directly reported by respondents.

Table 4 expresses relative hourly earnings as a percent of a common baseline: the earnings for formal, private non-agricultural wage workers. Table 4 demonstrates why it is important to describe the employment structure of a country and to describe the quality of employment within various categories. The quality of employment varies enormously. For example, Table 4 reveals that earnings from formal employment are generally higher than earnings from informal employment. However, one important exception is informal employers. Employers in the informal sector often earn more than private wage workers in formal employment. Therefore, treating everyone employed in the informal sector as identical will create problems for users trying to link informal employment to poverty.

Table 4. Hourly earnings as a percent of the hourly earnings of formal, private non-agricultural wage workers, by employment status category.

	<i>Costa Rica</i>	<i>Egypt</i>	<i>El Salvador</i>	<i>Ghana</i>	<i>South Africa</i>
Formal					
<i>Non-agricultural</i>					
Employers	257.0	n.a.	544.0	n.a.	n.a.
Own-account	141.8	n.a.	654.2	89.6	255.5
Private wage	100.0	100.0	100.0	100.0	100.0
Public wage	146.1	80.2	174.1	116.1	140.8
<i>Agricultural</i>					
Private wage	62.8	n.a.	78.0	n.a.	38.2
Informal					
<i>Non-agricultural</i>					
Employers	138.2	n.a.	249.9	n.a.	43.7
Own-account	56.3	n.a.	78.5	66.6	29.4
All wage	n.a.	75.6	n.a.	97.1	53.8
Private wage	60.0	77.4	62.7	n.a.	49.6
Public wage	n.a.	49.3	90.7	106.9	117.2
Domestic	28.7	n.a.	27.7	n.a.	16.8
<i>Agricultural</i>					
Own-account	35.2	n.a.	79.2	48.8	n.a.
Private wage	34.5	55.3	40.1	49.6	17.2
Public wage	n.a.	n.a.	53.8	n.a.	n.a.

n.a. indicates that data were not available or that there were insufficient observations to derive statistically significant estimates.

Source: *Chen et al., 2005.*

Employment-poverty linkages: two approaches

The tabulations described so far suggest that working people engaged in informal employment face higher risks of income poverty due to low earnings. Since most

households – and low-income households in particular – rely on employment as their primary source of income, low employment earnings translate into low household incomes and an increased risk of poverty. As discussed in the previous section, linking informal employment to poverty status requires establishing connections between the individual level (employment) and the household level (poverty). Here two techniques for making these connections are shown.

The first uses the concept of the “working poor.” Individuals are defined as working poor if they are (1) employed and (2) living in households that fall below a defined poverty threshold. The working poor poverty rate is simply the number of working poor individuals expressed as a fraction of total employment.

Working poor poverty rates were calculated as part of the country case studies summarized here. However, comparing poverty rates across countries is problematic. Poverty standards, household composition, prices, and consumption baskets all vary from country to country. To avoid this problem, a relative measurement of poverty is used within different categories of employment. The “relative” measure of poverty indicates the average poverty rate expressed as a percent of a common baseline. The baseline category used here is the same as that featured in Table 4: non-agricultural, private formal wage employees.

To understand the relative measure of poverty rates, consider the following example. If the poverty rate among non-agricultural, private formal wage employees were 15 percent and the poverty rate among informal domestic workers were 45 percent, then the relative poverty rate for informal domestic workers would be 300 percent (or three times the poverty rate of non-agricultural, private formal wage employees).

Examples of relative poverty rates are presented in Table 5. The results confirm our expectations: relative poverty rates in informal employment are higher than those in formal employment. Informal agricultural workers have the highest risk for poverty. However, the poverty rates for women working in informal non-agricultural activities – as own-account workers, domestic workers, and unpaid workers in family enterprises – are higher than that of male informal agricultural workers in two countries (Costa Rica and Egypt), nearly as high in two other countries (El Salvador and Ghana).

Table 5 about here

Interestingly, the working poor poverty rates calculated for individual countries revealed no systematic differences between men's and women's poverty rates within a particular employment status category. This held true even though it was shown that women's earnings were often much lower than men's (Chen *et al.*, 2005). In some cases, working women's poverty rates were lower than men's; in other cases, the reverse held true. The reason for this apparent inconsistency was discussed earlier: women's employment earnings contributed to overall household income and often raised incomes above the poverty threshold. Therefore, households in which women do not work in paid employment may be at higher risk of income poverty.

Because of this limitation in using the "working poor" definition to link informal employment to poverty, it is useful to supplement these estimated poverty rates with a second technique. This second approach defines poverty at the household level and then examines how household income derived from different kinds of employment influences the household's risk of poverty. The two approaches highlighted here for connecting informal employment to poverty outcomes provide different kinds of information about these linkages. The "working poor" approach begins with the individual and can be used to explore how labour market issues – such as inequalities in terms of individuals' access to different types of employment – may determine, in part, the risk of poverty. The household approach emphasizes how the livelihood strategies of the household, as a whole, influence its poverty risk. The individual-level and the household-level approaches, taken together, reveal a significant amount of information about the linkages between a country's employment structure and poverty outcomes.

Table 6 utilizes this technique to present estimates from a recent study of informal employment and poverty in urban areas of India. The table shows poverty rates for households that sustain themselves on informal employment income by broad industrial sector and employment type. In this case, households classified as sustaining themselves on informal employment income are households with at least one person employed as an informal worker and no other household member employed outside of the informal economy.

The importance of the degree of precariousness associated with different types of employment becomes clear in Table 6. Households that depend on informal, regular wage employment have lower poverty rates relative to households that rely on self-employment or casual wage income. The highest poverty rates are evident among households that sustain themselves on casual wage employment. This hierarchy of poverty risk – regular wage employment having the lowest, self-employment the next highest, and casual wage employment the highest risk – is robust across sectors in urban India.

Table 6. Poverty ratios among persons in households sustaining themselves on informal income, urban India, 1999/2000.

Industrial sector	Household employment income type					
	<i>Self-employed</i>		<i>Regular wage employment</i>		<i>Casual wage employment</i>	
	Very poor	Poor	Very poor	Poor	Very Poor	Poor
Manufacturing	8.90	25.89	6.76	21.30	18.52	41.55
Construction	6.76	20.28	5.91	14.70	19.48	43.35
Trade	8.27	21.01	7.24	19.11	17.20	36.99
<i>All non-agric. employment</i>	<i>9.53</i>	<i>24.71</i>	<i>7.42</i>	<i>21.57</i>	<i>22.86</i>	<i>47.06</i>

Source: Sastry 2004.

The household-level approach can be used to highlight various aspects of the employment structure and household-level livelihood strategies. One important distinction, shown in previous tables, is the division between agricultural and non-agricultural employment. However, differences between urban and rural employment are also critical. In many countries, a growing fraction of rural employment is in non-agricultural or non-farm activities. Therefore, rural and urban categories are distinct aspects of the employment structure that should be analyzed separately from agricultural and non-agricultural classifications. Table 7 illustrates how these differences may be analyzed using the household approach applied to India. The table shows poverty rates for households that sustain themselves on non-agricultural employment in the informal sector.

Table 7. Poverty ratios among persons in households sustaining themselves on employment in the informal sector, India, 1999/2000.

Industrial sector	<i>Rural</i>		<i>Urban</i>	
	Very poor	Poor	Very poor	Poor
Manufacturing	6.9	23.8	9.4	26.5
Construction	6.8	26.3	14.4	33.9
Trade	4.4	17.2	8.4	21.4
<i>All non-agricultural activities</i>	<i>6.1</i>	<i>21.9</i>	<i>11.0</i>	<i>27.3</i>

Source: Sastry 2004.

From Table 7, we can see that urban households in India that sustain themselves on non-agricultural employment in the informal sector actually have higher poverty rates than rural households that depend on non-agricultural employment. This underscores the importance of examining rural/urban distinctions along with agricultural/non-agricultural distinctions. In addition, this analysis shows how the household approach can be adapted to examine different dimensions of the employment structure.

IV. LABOUR MARKETS IN CHINA AND INDIA: RELEVANT DATA ISSUES

This report has examined the linkages between informal employment and poverty, with a particular focus on the types of data and statistical analysis that are needed to shed light on these complex issues. The suggestions, recommendations, and analysis outlined here could be adapted and applied in other contexts – both in the design of new surveys and in the analysis of existing data. Specifically, the report has often used India as an example of what can be done if the right data were available. Similar types of analysis could be produce for China, given the proper survey instruments and research design. The objective of this paper has been to show the feasibility and the usefulness of collecting and analyzing data on the employment –poverty linkage to provide justification for making this topic a priority in national data collection programmes and to encourage new research efforts.

The importance of improving data on employment-poverty linkages should not be underestimated. Without a better understanding of these relationships, development strategies aimed at poverty reduction and human development may be incomplete, misdirected, or unsustainable. Rapidly industrializing countries in Asia are often used as

examples of how the benefits of growth can be broadly shared through the creation of new and better employment opportunities. However, changing global dynamics and shifting employment trends raise questions as to whether a new set of strategies are needed in the context of the region's current economic reality. Better data that allows analysis of the employment-poverty nexus is essential if this challenge is to be overcome and appropriate policies implemented.

In some cases, existing surveys could be used to produce the type of analysis highlighted in this paper. In other cases, revisions of the survey questionnaires will be necessary in order to fully characterize the employment structure of the countries in the region. For some countries, however, a new program of surveys will be required. By highlighting the important policy issues that can be addressed and showing the feasibility of such analysis this paper, this paper has aimed to provide justification for the required new work.

References

Chant, Sylvia (2003). "New contributions to the analysis of poverty: methodological and conceptual challenges to understanding poverty from a gender perspective," Work and Development Unit, ECLAC (CEPAL), Santiago: Economic Commission for Latin America and the Caribbean.

Chen, M., Vanek, J., Lund, F., Heintz, J., Jhabvala, R., and Bonner, C. (2005). *Progress of the World's Women 2005: Women, Work, and Poverty*, New York: UNIFEM.

Hussmanns, Ralf (2004). "Statistical definition of informal employment: guidelines endorsed by the 17th international conference of labour statisticians (2003)," Paper presented at the 7th Meeting of the Expert Group on Informal Sector Statistics (Delhi Group), New Delhi, 2-4 February.

Kapsos, Steven (2004). "Estimating growth requirements for reducing working poverty: can the world halve working poverty by 2015?" Employment Strategy Papers, No. 2004/14, Employment Strategy Department, Geneva: ILO.

Sastry, N.S. "Estimating Informal Employment and Poverty in India," United Nations Development Programme India, Discussion Paper Series-7, December 2004, pp. 6-8 and pp. 21-22.

Table 3. Share of women's and men's informal employment by employment status category (percent).

		Non-Agricultural					Agricultural					Total
		Employer	Own-Account	Wage worker	Domestic	Unpaid Family	Employer	Own-Account	Wage worker	Domestic	Unpaid Family	
Costa Rica	W	8.0	37.4	20.2	24.9	6.0	0.6	1.0	0.6	0.0	1.2	100
	M	14.5	26.6	25.7	0.9	1.4	4.5	10.7	12.7	0.2	2.7	100
Egypt	W	0.4	3.9	6.2	n.a.	2.6	0.2	0.3	1.8	n.a.	84.6	100
	M	2.8	6.8	45.1	n.a.	4.5	11.3	4.4	15.4	n.a.	9.8	100
El Salvador	W	3.4	51.6	16.1	14.2	9.8	0.1	1.0	2.3	n.a.	1.4	100
	M	5.4	18.9	33.9	1.3	2.9	2.0	13.9	15.9	n.a.	6.0	100
Ghana	W	n.a.	39.0	4.6	n.a.	2.7	n.a.	33.1	0.3	n.a.	20.3	100
	M	n.a.	16.4	14.7	n.a.	1.4	n.a.	55.3	2.7	n.a.	9.5	100
India	W	0.0	6.3	8.0	n.a.	5.6	0.0	10.7	35.0	n.a.	34.4	100
	M	0.6	18.6	15.9	n.a.	3.7	0.1	24.0	25.6	n.a.	11.5	100
South Africa	W	3.0	16.2	43.0	25.6	1.6	1.4	2.0	7.1	n.a.	0.1	100
	M	6.3	9.5	57.8	1.2	0.7	1.9	2.6	19.8	n.a.	0.2	100

n.a. indicates that data were not available or that there were insufficient observations to derive statistically significant estimates.

Source: Chen et al., 2005.

Table 5. Relative poverty rates: working poor poverty rates by sex and employment status category as a percent of the poverty rate for formal, private non-agricultural private wage workers.

		Formal					Informal						
		Non-agricultural			Agric.	Own- acc't	Non-agricultural			Unpaid	Agricultural		
		Own- acc't	Pvt. wage	Pub. Wage	Pvt. wage		Pvt. wage	Pub. wage	Dome stic			Own- acc'n t	Pvt. wage
Costa	W	n.a.	100	n.a.	n.a.	735	330	n.a.	678	757	n.a.	n.a.	n.a.
Rica	M	n.a.	100	51	244	249	205	n.a.	n.a.	158	644	598	571
Egypt	W	n.a.	100	64	n.a.	416	293	n.a.	n.a.	219	n.a.	n.a.	281
	M	69	100	100	n.a.	218	200	n.a.	n.a.	86	192	263	205
El Salvador	W	n.a.	100	30	n.a.	233	207	145	193	206	372	338	398
	M	197	100	80	184	179	197	155	210	214	573	161	376
Ghana	W	233	100	164	n.a.	257	n.a.	177	n.a.	314	334	n.a.	394
	M	173	100	166	n.a.	146	n.a.	174	n.a.	226	275	215	305

n.a. indicates that data were not available or that there were insufficient observations to derive statistically significant estimates.

Source: *Chen et al., 2005.*