Agricultural employment trends in Latin America: Are there new requirements for statistics?

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Abstract

Labour statistics – especially those referred to highly seasonal or fluctuating activities, such as agriculture, or to highly heterogeneous areas with low survey coverage, such as most rural areas – have some important limitations as inputs for policy formulation. Different statistical sources (household and labour surveys, sector and population censuses) are frequently used to obtain information on agricultural and/or rural employment. Because they have different aims and they are based upon different questions, at different times and covering different periods, the inferred figures can vary widely. Limited or inadequate spatial coverage can raise additional problems: some household surveys only cover urban areas and in the case of censuses and surveys reporting rural areas, the definitions of "rural" vary from country to country and are being increasingly questioned nowadays.

The limitations of traditional statistical sources on agricultural and rural employment seem even more evident when considering the current requirements of data for the formulation of development policies. Placing emphasis on local/focalized policies implies that specific information on regions and agents are now required, while the need for monitoring and comparing policies at the national and supranational level demands standardized and replicable data. In that sense, agricultural censuses usually bring very detailed information on producers, which can also be disaggregated to a very low level, but they can not be easily standardized among countries. On the other hand, household surveys are more uniform and systematic, but small groups of agents, activities and regions, which can be of interest for policy matters, are not represented in them. Finally, most sources have problems dealing with some employment issues extensively present in the agricultural sector, such as child work and multi-activity.

1. Introduction

The formulation and evaluation of public policies generate several challenges for national statistical offices, especially in developing countries. Open economies are affected by events occurring everywhere in the world and national policies must be wide and prompt enough to respond to them. In this scenario, opportune and relevant statistics are a much appreciated public good and their production, an unavoidable step in policy formulation, not a process that exists for its own sake.

Even though most of the data now being gathered and disseminated on agricultural and rural employment is useful for policy formulation, users must be aware of its limitations (theoretical, methodological and operational) for interpreting the changing reality of Latin American agriculture. The quality and level of detail of the data and the way statistics are disseminated can make the difference in adequately representing this complex sector. This paper explores some of these limitations in a non-exhaustive analysis: we look at some of the major trends in agricultural and rural employment that, to be properly interpreted, require additional or improved information, inducing changes in the statistical sources currently available in the region.

These limitations can be organized in three main areas: inadequate definitions and classifications, insufficient data disaggregation and lack of data on the most vulnerable groups.

Some definitions and categories adopted in official statistics can be a cause of misinterpretation of the rural environment and the agricultural sector. The concepts of rural/urban areas and of employment/unemployment, for instance, do not take into account some of the specificities of this sector. Occupation and economic activity classifications, in turn, follow a mostly urban, modern sector and uniform approach, unable to comprise the traditional or subsistence agriculture.

Data disaggregation, either in terms of regions or agents, is increasingly important for policy formulation due to a rising emphasis on local development. In this sense, microregional data are needed to examine more disaggregated regions and to delimit areas different from political-administrative divisions, according to socioeconomic or agroecological criteria. These ad-hoc regional divisions are expected to be more homogeneous and to entail a more effective way of grouping statistics, analyzing figures and designing policies.

Finally, the increasing importance (either in terms of numbers, participation or subject of policies) of some so far "invisible" groups (women, children, young and elderly people, family farmers) is clearly putting pressure on statistics to generate more extensive and accurate information.

2. Agricultural and rural employment data sources: a brief inventory

According to Hoffmann (2003), labour statistics straddle the dividing line between economic and social statistics: on the one hand, human capital represents the most important productive resource; on the other hand, income arising from employment is the most important source of livelihood and welfare. In Latin America, labour statistics are found in household surveys, including employment and family budget surveys, and other sources such as population and economic censuses. Less common sources with relevant employment data include administrative records from human resources and social security departments, information on national labour legislations and collective agreements. Data from these different sources are summarized in the ILO publication *Yearbook of Labour Statistics*.

Employment data sources available in Latin America differ in terms of labour topics, coverage (regions, sectors, establishments, persons and occupations), reference time, periodicity, sample size and design. Classifications, concepts and definitions are, in turn, more uniform among surveys and countries, due to a consistent effort of homogenization carried out by international organizations and national statistical offices. Each data source is able to better deal with some topics and to be used for specific purposes. Economic censuses measure employment through labour demand, while population or household data do it through labour supply. Figures obtained can diverge due to different definitions and/or methodologies, whereas both sources are limited to accurately measure self-employment and, in some cases, non-paid family labour.

Censuses are indispensable as the framework for sample surveys and, although they are carried out only every ten years approximately, they are the most powerful instrument for disaggregated analyses. Household surveys, in turn, provide timely and complete information, many times also on the informal sector, but regional and category disaggregations are limited by the sample size. Economic censuses and particularly household surveys are increasingly being used for employment analysis because they allow easily mixing labour statistics with information on production, social data and household characteristics, a highly valuable feature in policy formulation and monitoring nowadays. Household surveys have the additional advantage of having much more questions on

employment than economic censuses, allowing better measuring and understanding labour characteristics and trends.

Family budget surveys in the region are usually conducted every ten years, however, for some countries they are carried out in an irregular basis. The geographical coverage of family budget surveys can be national without any specific areas excluded, as in the case of Brazil and México, but they are usually limited to main cities or they exclude rural or inaccessible areas. One of the most important purposes of these surveys is to give information on the structure of household incomes and expenditures, including employment and not employment-related incomes and transfers. They also have data on the employment status and occupation of household members. According to Ferran (1998), data obtained from family budget surveys can be considered more reliable than that from household surveys because interviewers and supervisors dedicate more time to the interviews and to the correction of non-sampling errors the first case.

Establishment or enterprise surveys, industrial or commercial surveys or censuses and consistent series of administrative records are also useful for labour analysis. These data sources cover topics such as employment by occupational category, sex and branch of economic activity, earnings and contractual wages and salaries, compensation of employees, hours of work, causes of increased or reduced employment, etc. They tend to have a national coverage, but their scope is usually restricted to the formal manufacturing sector (public and private).

The set of statistical sources previously described are extensively used for policy matters. With regard to agricultural and rural employment, nonetheless, each of them has a somewhat limited scope. Besides employment surveys that do not cover the agricultural sector, we can identify sources that exclude rural areas and others that have a classification of economic activities and occupations too aggregated to properly capture agricultural heterogeneity. Household surveys, which normally have a national coverage, are only urban in some economies in the region such as Argentina and Uruguay, where agriculture plays a significant role. In Colombia and Venezuela these surveys have a national coverage, but results are not presented separately for rural areas. Economic activity and occupational categories are quite disaggregated in the most recent household surveys[1]; however, the sample size limits the representativity and then the diffusion of this information. Agricultural censuses also have limitations since in many countries they do not give any information on temporary workers and for permanent workers data are quite limited. Finally, labour statistics in Latin America have strong limitations as to non-monetary, non-paid or informal segments so relevant in regional agriculture; it is hard, for instance, to conceive a model that capture the heterogeneity of this segment and then support data collection and analysis.

3. Agricultural employment trends and new data requirements

Some recent trends in Latin American agriculture are setting new requirements for statistics in terms of more disaggregated variables and updated concepts and definitions. Data processing is also being pressed by additional demands: workable mergers among databases are increasingly required, as well as more powerful and user-friendly data tools. This section aims to identify some of the major trends in agricultural and rural employment that, to be properly interpreted, require additional or improved information, inducing changes in the statistical sources currently available in Latin America. The trends analyzed in this paper can be classified into three main areas: related to the concepts, definitions and classifications that are at the basis of employment statistics, concerning alternative combinations of variables

[1] Up to five digits of the International Standard Industrial Classification of all Economic Activities, ISIC-Revision 3 and four digits of the International Standard Classification of Occupations, ISCO-88 for most countries.

and data sources and finally responding to the emerging relevance of some so far "invisible" groups of agents and issues.

Concepts, definitions and classifications

Some definitions at the basis of the most popular statistical sources affect decisively the understanding governments and citizens have of rural and agricultural employment. One of these definitions refers to the concept of rural itself. Discrepancies concerning this concept among countries or in one country over time influence trends and comparative analysis. Indeed, hardly any country in Latin America uses exactly the same definition of rural[2] and several have changed definitions over time. Moreover, the definitions of rural currently adopted in Latin America are seen in some cases as arbitrary, obsolete and unable to cope with the diversity of situations at hand in the region[3]. Some localities currently designated as rural might in fact be seen as urban in terms of population density, distance to major cities or access to public services. In contrast, the economy of many small cities classified as urban very often depend upon the exploitation of natural resources, especially agriculture, showing also a deficient infrastructure mostly identified with rural areas (Dirven, 2004).

It is important to note that the taxonomy urban/rural matters, either for statistical purposes or for regional development policies. On the one hand, because it is usually too expensive to gather information from remote or less populated areas, rural localities are sometimes excluded from or underrepresented in statistical sources. On the other hand, support policies and the amount of resources granted to rural and urban areas can differ to a large extent, even if the distinction between both areas are more formal than practical. Recent studies show the rising difficulties for Latin American definitions of rural to meet statistical and policy needs as regional economies change (World Bank, 2005 and Echeverri et al, 2007). Employment trends and policies, to stay with the issues that are in the scope of this paper, are affected in many ways by the concept of rural taken. For example, the misrepresented knowledge the society and policymakers have of rural employment, due to an inadequate statistics generation or diffusion, is undoubtedly a charge over rural workers. It can result in a limited access to infrastructure and public services (including education) that makes harder to rural habitants to entry into the labour market.

Employment and unemployment definitions adopted in Latin American statistics can also be a source of misinterpretation of the working situation in agriculture. Employment usually considers all persons over a certain age (between 10 and 15 years) who worked at least one hour during a particular reference week. This definition excludes temporary forms of work predominant in some segments of agriculture that do not take place in the specific reference week. The traditional definition of unemployment, in turn, comprises all persons over a certain age who, during the reference week, did not work but were actively looking for work or awaiting an opportunity to offer goods or services as self-employed or as independent professional workers. This definition does not fit agriculture well because at least one of its criteria, that of actively looking for work, does not necessarily take place in slack seasons, when there is no demand for agricultural labour.

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[2] There currently are five broad definitions of "rural" in Latin American population censuses and household surveys: those based on maximum population per locality (around 2,000 persons per locality in most countries); number of contiguous houses (Peru); legal definitions (Brazil, Ecuador, Guatemala, Uruguay); outside the municipal centre (cabecera municipal) (Colombia, Dominican Republic, El Salvador, Paraguay); and "non-urban characteristics" (Costa Rica and Haiti).

[3] Existe una creciente disconformidad con algunas de las definiciones censales, utilizadas también para las encuestas de hogares. El Banco Mundial (2005) hizo una primera aproximación para calcular el peso de la población "rural" con los criterios de densidad poblacional utilizados por la OCDE lleva a que la población "rural" pase a representar un 42% de la población total de la región, o sea, cerca del doble de cuando se suma la población rural según las definiciones censales de cada país. Esto equivale a la población que vive en localidades de menos de 20.000 habitantes. Para la comparación de las distintas definiciones censales de "rural" usadas en el resto del mundo y sobre la eventual mayor pertinencia de algunas respecto a las que actualmente están en uso en la región véase ECLAC (2007).

In other regions, we can find examples of employment definitions that consider the principal activity of workers during the whole year. Since this definition refers only to the principal economic activity, it does not allow taking into account the entire diversity of temporary or seasonal employment in agriculture, which can include different activities or occupations with over the year. Nonetheless, for some analytical purposes the reference week approach has its advantages. According to Hoffmann (2003), for the aim of monitoring labour markets, the reference period should be short as well as recent, among other reasons because variations in total employment and unemployment for different groups between short reference periods is important to observe. Nonetheless, used as a background variable for the description and analysis of other issues (e.g. consumption or the need for social services), as it is increasingly required by policymakers, it may be more relevant to look at employment and unemployment variables over a longer reference period.

Besides concepts and definitions, another key working area in statistics refers to classifications. Economic activity, occupation and education categories (besides age, gender and income, for instance) are the most useful classifications in employment analysis. Other categories can also be pertinent according to the kind of studies carried out, for instance, the situation in the household, legal or tenure of land status, etc. Most of these classifications have evolved in the last decades to accompany the changing realities that statistics are aimed to describe. Occupation categories, for example, have been widened in the context of international classifications[4] in response to the increasing diversity in the situation of workers. The *International Classification of Status in Employment* (*ICSE-93*) tries to reflect the changes in contractual arrangements that are taking place in many countries and to better capture the informal sector, which is crucial to the agricultural sector (ILO, 2003). The usefulness of occupation categories for the analysis of the structure and evolution of labour markets seems to be at the basis of this improvement. Nonetheless, the low adoption rate of the *ICSE-93* put in doubt the interest or the capacity of national statistical offices to make use of it (Elias and Hoffmann, 1997)[5].

Combinations of variables, indicators and data sources

Location plays a determining role, together with infrastructure, on the potentialities and limitations of agricultural and rural employment. On the supply side, assets availability, quality and economic use, which have historically influenced population settlement and migration, depend on the location and accessibility of resources[6]. On the demand side,

[4] The *International Classification of Status in Employment* (ICSE) was approved during the *15th International Conference of Labour Statisticians* (ICLS) in 1993. In that conference it was stated that there was a need for adapting the technical guidelines provided by the previous classification, the *International Classification of Status in Employment* from 1988, due to developments in the world of work.

[5] According to these authors, there are few incentives for the statistics producers and users of developed countries to use a more complex typology for status in employment, or for investigating situations on the border between paid and self employment, even though there exist clear indications that the situation has become more complex lately also in these countries. This is so because most these countries traditionally have (i) well established, legally and administratively, tax and social security regulations which define the difference between paid and self employment; (ii) the terminology for one or both of these situations is well established in everyday language; (iii) the labour market is dominated by those in paid employment; and (iv) few people find themselves in mixed situations where either their one job has features of both paid- and self employment or they have to supplement a paid employment job with one where they are self-employed. The situation in developing and transition countries is different in all these respects, and here the problem can be more one of capacity of their national statistical offices to investigate the various contractual situations and formulate more adequate typologies than the one traditionally used, e.g. by making use of relevant subcategories among those included in ICSE-93.

[6] Many studies point to the importance of infrastructure in rural development, especially in areas with low rural population densities as Latin America. Reardon, Berdegué and Escobar (2001) found a positive relationship between the share of income from wage employment in non-agricultural rural activities and the household's closeness to towns and roads. In the case of local economic activities (including agriculture), however, the construction of roads seems to have a double-edged effect, improving mobility both ways, with the risk of crowding out local producers (Renkow, 1998 quoted in Dirven, 2004).

physical and cultural distances to markets are crucial [7]. Decentralization and rural development policies implemented in most Latin American countries in the 1990s changed the relative attractiveness of regions, through new investments in infrastructure and the creation of jobs in municipalities, regional governments and decentralized public services. These policies had an invigorating effect on some remote localities, especially with the promotion of non-agricultural activities, affecting the employment patterns. Migration, especially temporary, also increased as rural infrastructure improved and workers have more options to move from one place to another. In this context, merging information on employment with some georeferenced data on distances and infrastructure network can be useful to understand how and to which extent location patterns affect the level of agricultural employment and its potential to promote development.

Accompanying employment statistics with information on climate, land use and resources availability/quality, in turn, can be very functional to understand the natural cycles inherent to agriculture and the way they are changing over time. Seasonality implies that the demand for labour and other inputs in the agricultural sector fluctuates over the year; some regions can hence shift from a condition of labour deficit to one of surplus in a very short time. In periods of intensive agricultural tasks, for instance, child and female work tend to become more common, and even small farmers can turn into temporary employers. Time coverage in most statistics, however, does not take natural cycles in agriculture into consideration, introducing several distortions as to the assessment of employment in this sector and in other directly related sectors such as food processing, transport, etc[8]. Not only seasonality, which is to some extent predictable, but also the rising variability of natural cycles – promoted, among other reasons, by global warming – make agriculture an increasingly erratic activity. In this context, additional or more specific information from different data sources can then be needed to properly interpret employment data.

Probably one of the most important trends in Latin America is the growing divide between agricultural employment and rural employment. Therefore it is becoming indispensable to distinguish economically active population in agriculture from that in rural areas. Two driving forces operate in this case: household supplying agricultural labour increasingly have their residence in urban areas and rural households are reducing their economic dependence upon agriculture[9]. Rural workers in the region depend less on farm income than workers anywhere else in the world; off-farm income is seen as an important strategy to overcome extreme poverty (Buvinic, 1999 and Dirven, 2004). Even though these occupations provide crucial extra income, preventing more severe poverty, it is not clear how much of an improvement this may be over subsistence or semi-subsistence agriculture.

The increasing importance of non-agricultural activities carried out by rural dwellers (known as rural non-farm employment or RNFE) is a relevant trend in Latin America. RNFE importance in total household income depends on many variables, such as the scale and type

[7] According to Dirven (2004), distance should be understood as physical distance weighted by transaction costs. Farmers' decisions are usually influenced not only by the cost and time involved in reaching a market, but also by their experience in a particular market, the stability of relations with buyers, and the resources invested to obtain information and supervise implicit contractual arrangements. Social and cultural distances also play a fundamental role in transactions involving goods.

[8] For example, agriculture was the main economic activity for 14.6 thousand workers in Brazil in 1997. Nonetheless, when the reference period was the last week in the same year, only 13.4 thousand workers answered agriculture was their main economic activity (Graziano and del Grossi, 2001). In the case of Chile, the number of non-qualified workers in the agrifood industry increases about 25% in the first trimester of the year compared to the third one (Dirven, 2005).

[9] According to Dirven (2004) and Köbrich and Dirven (2007), rural non-farm employment (RNFE) grew from some 17% of the rural economically active population (EAP) in the 1970s to 24% in the 1980s and to around 35% in the present decade. There has also been a shift of residence for those working primarily in agriculture, as they increasingly live in urban areas (around 20% of total agricultural labour). Less barriers to entry in agriculture compared to other sectors, even for those living in urban areas, as well as decentralization and rural development policies, are identified as some of the most important motivations for this trend.

of activities performed and the characteristics of participating household members[10], variables that have to be sought in multiple statistical sources. Since the place of residence of more than 20% of agricultural workers in Latin America is urban, both the decision-making rationale and the economic and social impacts of eventual changes in agriculture also have to be investigated outside rural households. This requires a continuous switch from one statistical source covering economic and productive aspects of agricultural activity to others dealing with labour and household decisions, both in rural and urban areas. This kind of statistical "exercise" is also required in many other analytical areas, for example, to understand the vicious circle that strongly links agriculture and poverty and to integrate into economic analysis the specificities of agricultural activity.

Poverty alleviation has been one of the main public concerns in Latin America in the last decades and particularly in more recent years, when the triumph of left wing governments and economic stability seem to have generated the appropriate environment in the region to discuss this issue. At the supraregional level, the United Nations have set as the first Millenium Development Goal to reduce by half the proportion of people living on less than a dollar a day and suffering from hunger. In the last years, international organizations such as the World Bank have also dedicated increasing time and resources to analyze this issue and to propose ways to overcome it.

With a proportion of poor or indigent people living in rural areas in the total of poor or indigent people much higher than the proportion of rural population in the total population, it becomes very clear that policies to reduce poverty in the region must pay special attention to the mechanisms that perpetuate and reinforce rural poverty. As a major source of employment in most countries and showing high levels of poverty, particularly among own-account workers, agriculture is definitely part of the problem[11]. Due mainly to seasonal unemployment and low pay, but also to the inherent risks of this economic activity and physical and cultural distances, employees and own-account workers in agriculture show the highest incidence and the most critical forms of poverty and indigence. Moreover, women and children participation in agriculture tends to coincide with high levels of poverty[12] and the most precarious forms of work: seasonal, casual or temporary, non-remunerated or low-paid; informal and hence excluded from employment rights.

Despite the very low unemployment rate detected in this sector, agricultural workers are in fact potentially underemployed. They consistently face a very fluctuating and/or insufficient income plus a limited access to public services that severely limit their own and their families' working and living conditions. As a consequence, a vicious circle of insufficient income, poor health and education, food insecurity, reduced working capacity, low productivity and reduced income is typically observed in agricultural households,

[10] Reardon, Berdegué and Escobar (2001) found that farmers with more land have less of an incentive to depend on RNFE. In turn, performing less labour-intensive agricultural activities, such as stockbreeding, increases a household's RNFE income share. Regarding household's and individual's characteristics, some studies have found that the household size has a positive influence on the chance of a member engaging in RNFE, while the relationship between education and the more productive types of RNFE seems to be unmistakably positive. RNFE probability also increases with age until about 40, and then decreases, whereas women are more likely to be employed in RNFE than men. Finally, asset endowment —both public and private— also clearly plays a role in RNFE (Dirven, 2004). In any case, more analysis is needed to ascertain why these relationships are so, which might modify the current understanding of RNFE and the results for policy matters.

[11] It is also considered part of the solution: see Bresciani and Valdés (2007), based upon the roles of agriculture project, executed worldwide by FAO and the WDR 2008.

[12] Even when the employer claims that he did not employ children, because of excessive task loading, children are sometimes involved by their parents in completing the work, and this is not recorded in statistics. In the case of subsistence farming, child labour is typically used to ensure family survival. It is not a question of cheap labour or a desire to exploit children, but rather poverty which forced children to work. In Chile, for instance, although there are relatively low rates of child labour, child workers are concentrated in trade and agriculture. The situation is not much different in other Latin American countries and in fact tends to be much worse (ILO, 2000).

perpetuating poverty. The employment rate is therefore a very limited indicator to understand the links between agriculture, poverty and development. It must be complemented by variables on production seasonality, the level of income generated, working and living conditions, access to assets, distance to markets, etc. Most of these variables are not easily found in traditional statistical sources, adding some complexity to the exercise of mixing them with employment data.

The still high importance of agriculture in Latin America makes necessary to consider not only the employment that take place in farms but also the numerous linkages between agriculture and other activities. The process of modernization of agriculture has historically been one of continuous appropriation by other sectors of activities traditionally carried out in farms (Goodman, Sorj and Wilkinson, 1990). Some of these activities, particularly those related to natural cycles, could never be reproduced out of farms, though. As a consequence, agriculture still exists as an economic sector, but it has become increasingly dependent upon other sectors, both upstream and downstream. More recently, the intensification of RNFE, international trade and foreign investment plus the promotion of liberalization policies and the improvement of rural infrastructure have strengthened the supply and demand linkages between agriculture and other sectors, both at the national and international level.

Statistical sources that allow measuring economic linkages among sectors have not improved, however. Input-output matrixes derived from national accounts are the most important instrument for looking at intersectoral linkages, including employment relationships. This information is based on descriptive and analytical models of similarities and differences among sectors, which allow aggregating activities defined as "similar" according to some criteria (the kind of goods and services dealt with, the parties involved, the purpose of transactions, how they are financed, etc). One of the main hypotheses of the models on the basis of the construction of input-output matrices is homogeneity: each category is treated as one activity producing a homogeneous product founded on a similar technology (Bolliger, 2006). Different products are aggregated through the continuous variable "value" and the requirements in terms of labour and other inputs are taken from each category average.

Considering agriculture as a sole category implies having only one employment coefficient for assessing the impact on this sector of changes taking place in other parts of the economy. This coefficient will be the average among market and subsistence systems and among less labour-intensive activities (such as soybean production) and much labour-intensive activities (such as fruit and vegetable production). Results obtained using this coefficient will clearly overestimate a change in the first case and underestimate a change in the second one (Bolliger, 2006). National estimations also ignore regional and rural-urban differences on agricultural employment that can be crucial for policy formulation. Even though agribusiness and especially services are increasing their relevance in many Latin American economies, input-output matrixes in the region still have an industrial bias. Moreover, the region is experiencing a process of rapid technical change in agriculture, even though it is restricted to some segments or regions. The technical coefficients are therefore rapidly becoming obsolete.

Emerging "invisible" groups and issues

Employment in agriculture comprises different forms of labour. To start with, we can separate it into employer, own-account and hired labour. Self-employment is still the predominant category in developing countries, even if hired labour is increasing. These own-account workers are accompanied by a similar contingent of non-paid family workers, composing the most important and vulnerable category of occupation in agriculture. Hired labour is mostly demanded by commercial farms but it can also be found, on a permanent or an eventual basis, in small farms that extensively use family labour. Hired labour is supplied

by either rural or urban households without land or agricultural households with labour surplus.

The occupational profile in agriculture has changed over the last decades in Latin America. Even if family non-paid labour is still predominant, the region experienced a shift to paid labour. The participation of elderly and female workers has increased[13]. Migration and RNFE patterns, according to which more qualified workforce tends to leave agriculture first, contribute to these trends. So do the lack of a universal social security system in the sector and the absence of policies to promote the transfer of land to new generations, which oblige elderly agricultural workers in many countries to keep active.

In spite of their increasing importance in Latin America, women contribution to agriculture is largely underestimated. It is much more difficult to ascertain employment and unemployment for women as for men because there is a tendency of women to be considered, by others and by themselves, as economically inactive (Mata Greenwood, 1999). Even when it is known that most women in rural areas are engaged in some kind of agricultural activity, they are frequently classified as housewives (non-economically active) instead of non-paid family workers (economically active). Employment statistics consistently fail to capture female (and also children) labour because questionnaires and interviewers put emphasis on the most formal types of labour, in which male workers are predominant. This supports an erroneous vision of agriculture, leading to the formulation of inadequate policies that do nothing to improve women's working conditions and sometimes even reinforce inequality in gender issues (Kelkar, 1999).

An additional trend in Latin American agriculture refers to some emerging issues promoted either autonomously by public and private agents or as a consequence of the signature of international agreements. Complying with the new public and private requirements in the main international food markets implies, in some cases, to change working conditions in agriculture[14]. Together with environmental and food safety requirements, decent working conditions in agriculture are gaining importance as barriers to entry. Even if at this time the new requirements are not applicable to all farms, but only to those seeking to export to the most stringent markets, some spread is expected as economies develop, globalization and competition advance, multinational enterprises dominate the retail food market and governments commit to international regulations. Unfortunately, statistical sources have a lack of information on agriculture and agrifood working conditions, and the use of non-regular sources or case studies can be necessary in most cases.

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[13] Data from household surveys show that the participation of workers over age 60 in Latin American agriculture has grown from 10.7% to 14.3% between the beginning of the 1990s and the 2000s. At the same time, female workers increased their participation from in this sector from 19.4% to 26.7%. We can also see that the proportion of children and elderly people among agricultural workers is much higher than in other economic sectors: workers under age 15 account for 8.1% of agricultural workers and only 1.8% in other sectors; for workers over age 60 these participations are 14.3% and 5.3%, respectively. In Bolivia, workers under age 15 account for 22% of total workers in agriculture; in Guatemala, Nicaragua, Honduras, Paraguay y Ecuador child work also account for more than 10% of total agricultural labour. These figures include the following countries in the region: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Uruguay and Venezuela. For Argentina and Uruguay the data refer only to agricultural workers living in urban areas, since household surveys for these countries do not cover rural areas. It is also important to note that the minimum age for gathering employment information varies among countries: from

[14] According to the International Labour Organization (ILO), all conditions of work are worse in agriculture than in other activities. Incomes are lower and even more unevenly distributed than in the rest of the economy. Roughly 70 per cent of child labourers work in agriculture and in some countries bonded labour proliferates. Trade union organizations are generally weak: seasonal, migratory and casual labour, illiteracy, ignorance of workers' rights, and isolation make the task of organizing among rural workers particularly difficult. Many agricultural workers are poorly protected by national labour law (some countries specifically exclude the agricultural sector from their general labour legislation; in others, general protective legislation may not be fully applicable to the agricultural sector, or may simply not be applied).

4. Improving employment data in a changing context

Information as a basic input to policymaking is not a static event but a dynamic process. To be useful, labour statistics must be able to evolve as reality and social perceptions of the phenomena they are trying to describe change. The previous section illustrated to which extent recent trends in Latin American agriculture are setting new requirements to employment statistics. Making these new demands operational is not easy, however; this section aims to summarize some ideas in this sense.

Latin America as a region (and all its countries individually) presents many internal disparities in terms of geography, ethnicity, income level and socioeconomic and wealth conditions. One way of dealing with this heterogeneity is through the adoption of a local approach, for which disaggregated statistics are needed. At the same time, location and infrastructure are gaining importance as variables that explain employment patterns, but getting extensive and regular information on these issues can be hard. In Latin America there is some information on infrastructure network (types of roads and accessibility to major towns in hours, for example), which should however be improved, enlarged and updated in order to be useful for assessing the impact of distances on labour markets. It should also be encouraged the inclusion, in most statistical sources, of socioeconomic or agroecological regions as an alternative to the official administrative or geographic divisions. This would allow easily getting employment data classified in a more homogenous and analytically useful way. It would also be necessary to widen the discussion that is now taking place in the region on the concept of rural and to extend the classification of rural-urban areas to the statistical sources that still have not incorporated it.

Regarding the lack of information on the non-paid or informal segment, particularly female workers, some recommendations made in other studies[15] to better capture this group in statistics are summarized next. First of all, there seems to exist a consensus that it is essential to generate more information on the time dedicated by each household member to productive activities and homework and that these data should take into consideration all the activities carried out over the year. It is also necessary to gather information on the value of goods and services produced by household members for self-consumption, being aware that sometimes they are not able to value these products (and especially the services) on their own. Questionnaires should thus be constructed and interviewers trained in a way that allows properly measuring the value of the activities carried out by family workers and their real contribution to the economy. Moreover, in order to measure wage and productivity differences among men and women or among adult, young and elderly workers, it would be very useful to gather information on incomes, value of goods and services and time dedicated to all productive activities for each household member separately. For those not working or underemployed, data should be obtained to describe reasons for not having employment. Finally, the studies point that agricultural censuses should widen their coverage of labour issues in agriculture by including at least the age, sex and educational level of permanent and temporary workers and information on farmers without land.

Specifying occupational categories according to the conditions of national labour markets can also help capture informal employment. National statistical offices, which are familiar with the situation in their countries, should be able to set up such a classification using the ISCO job descriptions complemented with local information. Some relevant work on this issue has been undertaken in some countries[16]. National statistical offices also play a major role in

[15] Farrar and Vogel (2001), Buvinic (1999), FAO (1989), ILO (2003), Hoffmann (2003), Jaffe (1972).

[16] According to ILO (2003), the Labour Force Survey in the Republic of South Africa includes questions designed to supplement and throw better light on contractual situations, while the European Labour Force Survey, conducted by all member and candidate countries of the European Union and by EFTA countries, includes questions to employees about the permanency of the main job and the total duration of temporary job contracts. This last survey also includes questions to

coordinating definitions and classifications to assure that variables from different areas are coherent and that a comprehensible "dialogue" arises among them. Such coordination can only succeed if it is based on a clear understanding of the descriptive and analytical needs of the different subject matter areas (Hoffmann, 2003). One way of improving the knowledge on employment issues is by putting more emphasis on the information, comments and requests that come from users and the subject matters themselves, that is, the workers' needs and opinions. The adoption of this bottom-up approach would probably increase the utility of statistics for development objectives.

Statistics must be opportune, reliable, understandable, accessible and useful. National statistical offices should therefore not only assure the availability and consistency of the information generated, but also promote its prompt dissemination. The accessibility and utility of statistics are closely related to the capacity of users to correctly read the variables presented and to recognize the possibilities and limitations of the data. One of the main tasks of national statistical offices is thus to train users to properly interpret statistics and to take advantage of all its potential. Finally, it is important to recognize that most of the data now being collected on employment is of great value for policy formulation. However, the information disseminated is usually only a small part of the vast amount of statistics originally collected and potentially useful on this issue. There is considerable room for extending the public access to the already existing information, improving its codification, tabulation and publication.

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own-account workers about control over their own work methods and schedules, and about regular work for a single customer. Finally, an ILO study uses the variable place of work to identify outworkers/homeworkers.

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