

Measuring Informal Employment in Transition Countries

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1. Introduction

In the past few years the informal sector (or economy) in transition countries has increasingly become the focus of research, public policy and the media. This is a result of growing concern with corruption, tax evasion and organised crime as well as with an unprecedented increase in poverty and inequality. Given the wide spectrum of concerns, the term has been used to describe activities as diverse as petty trade, subsistence agriculture, undeclared domestic work, barter, stealing of public property, bribery, corruption, tax evasion, money laundering and organised crime.

This note discusses what can be considered informal employment in the transition context and how it can be measured. I begin by briefly reviewing the main labour market developments since the beginning of the transition period and discuss the specific nature of informal labour market activity in transition countries. I then present a conceptual framework for the analysis of informal activities in transition and explain how it relates to the most recent ILO definition of informal employment. A review of how informal employment has been operationalised in transition countries follows. Finally I highlight some of the gaps in the existing data and make suggestions for future survey design.

2. Main Labour Market Developments since the Beginning of Transition

The soviet-style socialist economies were characterised by high labour force participation and full employment. Unemployment was virtually nonexistent and workers were used to having regular, full-time wage employment. Jobs were secure and the state provided social welfare from “cradle to grave” (see Atkinson and Micklewright, 1992, Estrin, 1994).

With the dismantlement of the socialist system came an unprecedented drop in output, resulting in both employment and wage adjustments as well as in the virtual collapse of social security provision. Generally speaking, in the CEE countries and middle-income CIS countries, where the provision of social security was less affected, the adjustment has taken place mainly through employment, resulting in persistent open unemployment.¹ In the low-income CIS countries, where social security provision has largely collapsed and unemployment is not an affordable option, workers have either remained in unproductive jobs in un-restructured enterprises or work in the informal economy, including in subsistence agriculture.

Informal employment is estimated to account for roughly 20 percent of total employment in the more advanced CEE countries, roughly 35 percent in SEE and more than 50 percent in the CIS countries (Schneider, 2002). There is also evidence that there are differences in the causes of informal labour market activity between the CEE and CIS countries. Although both “voluntary” and “involuntary” informal employment exists in

¹ CEE refers to the countries of Central and Eastern Europe. SEE refers to the countries of South Eastern Europe and CIS refers to the Commonwealth of Independent States, which includes most countries of the Former Soviet Union.

all countries, in the richer CEE countries workers and firms work informally *mainly* to evade high taxes and avoid strict regulations, while in the CIS and poorer CEE countries, informal employment is largely an employer of last resort, providing subsistence income (see Bernabè, 2005, Bernabè and Kolev, 2005, Commander and Tolstopiatenko, 1997, Earle and Sakova, 2000, ILO Bureau of Statistics, 2004, Johnson et al., 1997, Kolev, 1998, Reilly et al., 2003, Tiongson and Yemtsov, 2008, World Bank, 2000). There is also evidence that informal employment serves as a queuing device for formal salaried employment as analysis of panel data shows that there is a much greater tendency to move from informal to formal salaried employment than vice versa (Bernabè and Stampini, *upcomming*, Lehmann and Pignatti, 2007).

3. Informal labour market activities in transition

We can identify a number of informal labour market activities in transition countries. First, there has been a significant growth in “informal sector” employment (as defined by ILO, 1993b, 2003).² An important share is in agriculture, but also in trade and construction. Estimates of informal sector employment are rather limited in transition countries but in countries where they do exist it is clear that the vast majority of self employment is in fact in the informal sector (see Anderson, 1998, Bernabe', 2002, ILO Bureau of Statistics, 2004).³ Self-employment now accounts for over 50 percent of total employment in low-income CIS countries, 17 percent in middle income CIS countries and 20 percent in CEE (EUROSTAT, 2003).

Second, there is evidence that there has also been a growing informalisation of dependent wage employment (i.e. “informal employment” as per ILO, 2003). There has been a significant increase in temporary, casual and precarious jobs - particularly in the private sector (see Bernabe', 2002, ILO Bureau of Statistics, 2004, Lehmann and Pignatti, 2007, Reilly et al., 2003, Tiongson and Yemtsov, 2008). These jobs are not covered by existing regulations and do not provide entitlement to employment benefits and social protection. Reilly et al. (2003) estimate that roughly 15% of wage employment was informal in Georgia and Armenia at the end of the 1990s and as much as 50 percent in the Kyrgyz Republic. If only private sector wage employment is considered, as much as 70 percent was informal in Georgia in 1999 (Bernabe', 2002). In most cases females, youth, individuals with less than secondary education, and those living in poor households are most likely to be informal wage employed (see for example Bernabe', 2002, ILO Bureau of Statistics, 2004, Lehmann and Pignatti, 2007, Reilly et al., 2003).

² Employment in the “informal sector” includes all workers employed in household unincorporated enterprises engaged in the production of goods or services with the primary objective of generating employment and incomes to the persons concerned (see ILO, 1993b, 2003).

³A study on informal employment in the seven poorest CIS countries finds that in the Caucasus countries, Moldova and Kyrgyz Republic roughly 70 to 100 percent of self employment is in the informal sector, while in Tadjikistan and Uzbekistan the shares are roughly 30 percent and 2 percent respectively (Reilly et al., 2003).

Third, we can identify a number of informal labour market activities that are not necessarily captured by the ILO concept of “informal employment” but are characteristic of transition countries and are largely a legacy of the Soviet/socialist heritage.⁴

The first is what was referred to as “*left-hand work*” in the Soviet second economy literature (ie. what the left hand does while the right hand is doing the “official job”).⁵ This is essentially the earning of informal income at the formal workplace. It includes: (a) the manipulation of official business transactions to realise monetary earnings, and (b) the exploitation of the ‘grey zones’ at the fringes of the workplace, including the diversion of customers for a private client base, and the pocketing of fees for services rendered through the firm (Birdsall, 2000). Although there have been limited studies on the topic since the beginning of transition, there is much anecdotal evidence which suggests that such activities are still prevalent. An example would be the pocketing of fees for plumbing, taxi, massage etc. services rendered through the formal job. A related issue is that of “envelope payments”, whereby a large part of workers’ salaries in formal jobs is undeclared (for an example in Ukraine see Lehmann and Pignatti, 2007).

A second informal labour market activity which is thought to be widespread, and which is by no means limited to transition countries, is *moonlighting or multiple job holding*.⁶ During the socialist period, moonlighting referred to production that took place for private gain outside official working hours (as opposed to left-hand work which took place during official working hours). Moonlighting was very common in construction, agriculture and taxi services and still is today. Anecdotal evidence suggests that moonlighting has increased considerably during the transition period as workers take on more than one job to make up for very low wages and wage arrears. However its scope is greatly underestimated largely because workers are reluctant to admit to having more than one job for fear of being taxed and because they may be unsure as to its legality (for moonlighting or secondary/multiple job holding see Bernabe', 2002, Clarke, 1999a, Dudwick, 1999, Guariglia and Kim, 2000, Johnson et al., 1997, Lokshin and Yemtsov, 2001, Reilly et al., 2003, Reilly and Krstic, 2002).

A third second economy activity that appears to have continued through the transition period is the hiring of so-called “*dead souls*” or “*ghost workers*”. This refers to the practice of hiring workers in formal enterprises who never come to their formal work place and earn their income informally in a second job. Employees may not even earn a

⁴ The informal economy is not new in transition countries. There has long been a parallel, private, unregistered and untaxed part of the economy which during the Soviet period was referred to as the “second economy” on which an extensive literature exists (see Berliner, 1952, Braithwaite, 1994, Grossman, 1977, 1982, 1989, Grossman and Treml, 1987, Kurkchian, 2000, Los, 1990, Mars and Altman, 1983, Mars and Altman, 1987, Shelly, 1990, Simis, 1982).

⁵ Left hand work was widespread and considered a normal aspect of working life in the Soviet Union. A very good example of left-hand work is that of bus drivers. Simis (1982) and Kurkchian (2000) describe how in Georgia and Armenia respectively bus drivers had an official wage, which served to guarantee basic security, however it was accepted (and expected) that their main source of income come from charging passengers fares and not issuing tickets or receipts.

⁶ Note that moonlighting is included in the ILO (2003) definition as all informal primary and secondary employment is included.

wage from their “formal” job. The main motivation for employees is to preserve benefits, while having the possibility of earning a higher wage in the informal economy. Employers benefit from a simplified version of accounting control and tax rebates that they become eligible for by reporting a substantial amount of employed labour force (see Bouev, 2001).

Finally, *urban agricultural production* for own consumption, sale or barter is also a residue from the socialist heritage. During the Socialist period, many urban (and rural) households were allocated plots of land outside the city limits on which they could build their *dacha* (summer houses) and grow food for their own-consumption. It was a legal part of the second economy and seen as a means of supplementing household income. Today, urban agricultural production may account for a significant share of both employment and income (see Clarke, 1999b, Johnson et al., 1997, Lokshin and Yemtsov, 2001).⁷

4. A conceptual framework for informal labour market activities

From a policy point of view, it is important to distinguish informal activities that are of concern from a poverty and social exclusion perspective from those that are more relevant from a legal and public finance perspective. In Bernabè (2002), I present a conceptual framework for the study of informal activities in transition countries which distinguishes between those unmeasured (unregistered/unregulated) activities whose primary purpose is to meet basic needs from those which are deliberately concealed to avoid taxes and regulations. I build on the concepts of the System of National Accounts (SNA) 1993 and distinguish informal productive economic activities from household, underground and illegal activities.

Table 1 and figure 1 provide a summary of the conceptual framework. Two aspects are particularly noteworthy. First, what distinguishes the bulk of household from informal productive activities is that household activities are outside the SNA production boundary while informal activities are within it. The implication is that agricultural production for own-consumption - which is generally quantitatively significant in relation to total national agricultural production in transition countries and therefore falls within the SNA production boundary - is considered an informal activity.⁸ Second, what distinguishes informal from underground activities is that the first are unmeasured (untaxed/unregulated) *not* because of deliberate attempts to evade the payment of taxes or infringe labour or other legislation, but because they are undertaken to meet basic needs, while the latter are deliberately concealed from the public authorities for precisely these reasons. Finally, as can be seen from figure 1, it is impossible (and unrealistic) to define strict boundaries between different types of activities and for certain activities it may be difficult to determine whether they belong to one type of activity or another. However,

⁷ In Georgia for instance, 36 percent of urban informal employment was subsistence agriculture in 1999 (Bernabè, 2002).

⁸ Production of goods within the household are included in the SNA production boundary (and therefore GDP) if the amount produced is believed to be quantitatively significant in relation to the total supply of that good in the country (1993 SNA:6.25).

this does not deprive us of an understanding of what constitutes the bulk of activities within each group.⁹

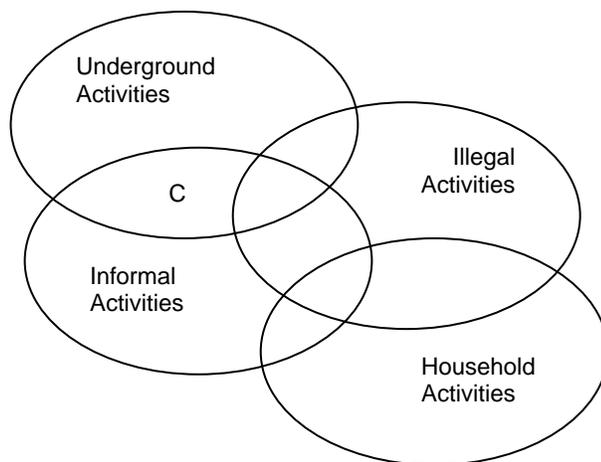
Table 1. Summary of the Conceptual Framework

Productive activities	Within the SNA (1993) production boundary?	Are goods and services legal?	Primary reason why activity is unmeasured/untaxed/unregulated?	Examples
Household	No	Yes	Irrelevant*	household cleaning, maintenance and repair of dwelling, preparation and serving of meals, care for the sick or elderly, transportation of household members.
Informal	Yes	Yes	Activities undertaken to meet basic needs, not deliberately concealed.	petty trade, household agricultural production, ambulant street vending, unregistered taxi services – with own car, rickshaw or other undeclared paid domestic employment.
Underground	Yes	Yes	Activities deliberately concealed to avoid taxes, social security contributions, legal standards, compliance with administrative procedures, etc.	most cases of tax evasion and benefit fraud.
Illegal	Yes	No	Irrelevant	production of narcotics, illegal transportation in the form of smuggling, prostitution and unlicensed medical practice.

Source: Bernabè (2002)

* The primary reason why household and illegal activities are unmeasured is irrelevant to their classification in the household or illegal sector, as this is determined by whether or not they are within the SNA production boundary and whether or not they are legal.

Figure 1. Relationship between informal, household, underground and illegal activities



Source: Bernabè (2002)

⁹ It is of course possible to make different types of activities mutually exclusive by simply starting with one and defining each subsequent one as including that which is not included in the previous ones.

This definition of informal labour market activity is similar to the new ILO (2003) definition of informal employment in that it captures all employment in the “informal sector” as well as all other forms of “informal employment”, including – amongst others- agricultural production for own-consumption and all casual, temporary and unregistered wage employment regardless of the type of enterprise in which it takes place.

However this definition differs from the new ILO definition in two significant respects. First, it is based on activities rather than units or jobs and therefore captures informal activities irrespective of the units or jobs in which they are carried out. Informal activities can take place in formal, informal, non-informal household or other units and similarly in informal or formal jobs. This is important in the transition context as it captures informal activities in formal jobs such as left hand work and the hiring of dead souls.

Second, this conceptual framework distinguishes between informal and underground activities; informal activities are by definition not underground. In the ILO definition, activities undertaken in the informal sector or on informal jobs can theoretically be underground (i.e. undertaken with the deliberate intent of evading taxes etc.”). In the transition context, where tax evasion and weak government revenue is of great concern, it is important to distinguish between these two concepts in order to evaluate the extent to which these informal income-generating activities provide a social safety net and the extent to which they undermine government revenue. This information is critical for public policy as it would allow the benefits of an increase in government revenue to be weighed against the risk of an increase in poverty, which would result from an attempt to “tax” or “eradicate” some of these income-generating activities without providing any other form of social security.

5. Operational definitions of informal employment in transition countries

In order to operationalise the above concept of informal activities, assumptions must be made as to what types of activities can be considered to be undertaken “to meet basic needs”. A discussion of this issue is provided in Bernabè (2002). The general typology of informal employment associated with the above framework may be summarised as follows:

1. own-account workers and employers in household enterprises¹⁰
2. contributing family workers
3. non-regular employees¹¹
4. others employed casually, temporarily or seasonally
5. employees engaging in left-hand work

Both primary and secondary jobs may be informal.

¹⁰ This includes agricultural production for own-final use.

¹¹ Employees who do not have “stable contracts” (as defined by ILO, 1993a, par.8,9). These are contracts for whom the employing organisation is responsible for payment of relevant taxes and social security contributions and/or where the contractual relationship is subject to national labour legislation.

A number of issues may arise in the operationalisation of this typology. First, obtaining information on left hand work may be problematic as it requires specific questions with regards to the earning of “extra’, unofficial, income at the formal workplace, which often do not exist. When such questions do exist, responses may not be entirely reliable as workers may be very reluctant to reveal such activities. Second, in the analysis of this data - for instance when using regression models to analyse the determinants of informal employment - it may be necessary to construct mutually exclusive categories. As a result, in a formal/informal dichotomy, formal workers engaging in left-hand work must be classified as formal. Of course one can create numerous categories including “formal not engaged in left-hand work” and “formal engaged in left-hand work”. However, in practice, having too many categories often undermines robustness of results as the number of observations becomes too small. The same issue arises when analysing secondary or multiple-job holding. Therefore, in practice, many studies that have used econometric analysis have tended to omit secondary job-holding and left-hand work.

An example of how the above typology has been operationalised for a study of informal employment in the seven poorest CIS countries is provided in the table 2 in the annex. Finally, table 3 provides a summary of some of the other operational definitions of informal employment found in the literature in transition countries.

6. Gaps in the data, issues for survey design

Data on informal employment in transition countries is obtained mainly from employment modules of Household Budget Surveys and Living Standards Measurement Surveys, and in a few cases from Labour Force Surveys. In many cases, existing questions do not adequately capture informal labour market activity, informal employment and informal sector employment. In particular, the following gaps can be highlighted:

1. Self-employed (i.e. own account workers and employers): a question on the registration of the enterprise is often missing. This is essential, particularly in the poorer transition countries where size of enterprise is often not a good proxy for informal sector employment.¹² Location (e.g. at home, in the street, in a street booth, on a construction site, in a market place, at a customer’s home, in a non-fixed location etc.) may also be a good proxy for informal sector employment in transition countries.
2. Wage employed: many countries do not include questions on the type of employment contract (oral or written), making it very difficult to identify informal employees. Moreover, some countries have adopted new labour laws (e.g. Georgia) which make oral employment contracts legally binding. This means that “oral agreement” cannot be used as a proxy for not receiving social protection. In such cases it is important

¹² In Georgia for instance, over 97 percent of own-account workers and employers work in enterprises with less than 4 people (including owners, employees, unpaid family workers and casual workers). Moreover, including only enterprises with less than a certain number of employees would result in the inclusion of professionals (lawyers, doctors, accountants etc) who could have relatively high incomes and intentionally conceal their activities to avoid the payment of taxes.

that questions be included on (i) the payment of social contributions by the employer and/or (ii) the possibility to take paid annual leave or be compensated for it and/or (iii) the possibility to take sick leave, maternity leave.

3. Agricultural employed: in order to distinguish those employed in “subsistence” agriculture from the more commercial farmers, it is useful to include questions on (i) whether production is only for own-consumption and barter and (ii) size of land.
4. Left-hand work: Most surveys do not include questions on the earning of informal income at the formal work place. Questions should be included on the “actual wage”, the “contractual wage” and “total earnings” (including unofficial earnings). This would also help to identify wage arrears, which are still widespread. Surveys could also include lead questions referring to the difficulty of economic times and the necessity to earn extra income etc.
5. Secondary and multiple job holding: all qualitative and anecdotal evidence suggests that it is widespread however existing surveys have considerably underestimated its scope. In addition to improving questions on multiple-job holding it is important that interviewers be trained in how to encourage respondents to discuss secondary employment as well as left-hand work. Questions should also be included on earnings from secondary jobs in order to identify *deal souls* who earn the majority of their income from informal secondary jobs.

More generally, one of the dominant questions in the literature on informal employment in transition (and developing) countries is whether informal employment is “voluntary” or “involuntary”. However direct questions on this topic are very rarely available. Surveys should include questions on whether workers are working in their job out of choice or because there is no better alternative and on what type of job they would want if they had a choice (i.e. formal, informal, etc.). These questions should be asked of all employed (i.e. wage employed, self employed, contributing family workers, etc.).

Moreover, earnings data is often weak and highly unreliable. Reliable earnings data is indispensable to determine the extent to which informal employment may undermine government revenue and the extent to which it generates livelihoods.

Finally, if possible, panel data is most desirable as it enables the analysis of labour market transitions between different types of employment, allowing research to address (amongst others) the very important questions of labour market flexibility and labour market segmentation.

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ANNEX

Table 2. Operational Definitions of Informal Employment for CIS-7

Country	Informal Main Job				Informal Secondary Job				Data
	Non-regular employees (1)	Non-agriculture self-employed in household enterprise (2)	Farmers (3)	Unpaid family workers (4)	Non-regular employees (1)	Non-agriculture self-employed in household enterprise (2)	Farmers (3)	Unpaid family workers (4)	
1. Tajikistan	N/A.	Own-account worker or employer in a family business	Farmers with a plot less than x hectare	Unpaid work in an enterprise, farm or dacha	Employees	Own-account workers, employers	Own-account workers and employers in agriculture	Family workers	LSMS-1997
2. Moldova	Irregular or occasional work	Managing individually, entrepreneurship in crafts	N/A.	Assistance in family entrepreneurship and farm	N/A.	Managing individually, entrepreneurship in crafts	N/A.	N/A.	HBS-1997, 2000
3. Uzbekistan*	Temporary, seasonal or casual work			Unpaid family worker	Temporary, seasonal, or casual work			Unpaid family worker	HBS-2001
4. Azerbaijan	Employees who do not enjoy beneficial medical or other services	Own-account workers, domestic workers	Own-account workers and employers in agriculture with a plot less than x hectare	Unpaid family workers	Employees	Own-account workers, employers, domestic workers	Own-account workers and employers in agriculture	Unpaid family workers	LSMS-1995

5. Armenia	Temporary, seasonal or casual work	Own-account workers	Own-account workers and employers in agriculture with a plot less than x hectare	Unpaid work in family enterprise	Temporary, seasonal or casual work	Own-account workers, employers	Own-account workers and employers in agriculture	Unpaid work in family enterprise	ISLS-1999
6. Georgia	Employees with oral agreements and temporary, casual or seasonal work	Own-account workers/ employers located in home, street, etc. or not-registered	Own account workers/ employers in not-registered agriculture	Unpaid family workers	Employees with oral agreements and temporary, casual or seasonal work	Own-account workers/ employers located in home, street, etc. or not-registered	Own account workers/ employers in not-registered agriculture	Unpaid family workers	LFS, HBS-1998, 1999
7. Kyrgyz Republic	Employee without signed contract or employee in private enterprise with less than 5/10? employees	Own-account worker/ employer in enterprise with less than 5/10 ? employees and domestic workers	Own-account worker/ employer in agriculture with a plot less than x hectare	Work in relative's business, farm or dacha and inactive or unemployed but owns land	Employee in private enterprise	Own-account worker/ employer and domestic workers	Own-account worker/ employer in agriculture	N/A.	LSMS 1996, 1998

- No other categories can be distinguished until all activity codes are provided.

Source: Reilly et al. (2003)

Table 3. Some Operational Definitions of Informal Employment in Transition Countries

Krstic and Reilly (1998)	(1) Self-employed (own account workers or employers with a small number of workers in non-registered firm); and (2) all active and inactive individuals who work for own-account or for 'informal' employer.
EBRD (2000)	1. Family helpers (unpaid family workers and inactive individuals but owning land), 2. occasional workers and 3. multiple-job holders
Johnson, Kaufmann and Ustenko (1997)	Typology of 'survival strategies' (informal activities): (1) having another job (2) using dacha or other plot of land to grow food (3) working as private taxi driver (4) renting one's apartment (5) business trips abroad (to purchase goods for resale) and (6) renting out one's garage.
Clarke (1999a)	Unregistered primary employment and all secondary employment.
Anderson (1998)	Informal sector is: 'small-scale, family-based activities that may be undercounted by official statistics and not subject to same regulation and taxation as formal enterprises'. Includes only monetised transactions and urban sector. The operational typology consists of : (1) taxicab drivers (2) kiosk proprietors (3) market vendors (4) street services and vendors
Braithwaite (1994)	All activities outside the state sector undertaken for private gain and/or unregistered for taxes.
Commander and Tolstopiatenko (1997)	All private sector firms (excluding privatised state enterprises) and all part-time work.
Kolev (1998)	Any paid activity in addition to the work performed as main occupation plus any paid activity reported by individuals who do not report working as their main occupation.
Reilly & Krstic (2002)	All second-job holders
Bernabè (2002)	1. informal self employed (own account workers and employers working in household enterprises); 2. contributing family workers; 3. informal employees (employees with oral agreements and employees employed on a casual or temporary basis); 4. other informals (including members of producers co-operatives working either casually, temporarily or in typically informal activities); 5. informal secondary jobholders (workers with formal primary jobs and informal secondary jobs).
Bernabè and Stampni (<i>upcoming</i>)	1. informal wage employed (wage employed on the basis of an oral agreement or employed on the basis of a written agreement but work is casual, provisional, seasonal); 2. self-employed (own-account workers without employees or unpaid family workers not in agriculture)
Bernabè and Kolev (2005)	1. non-regular wage employed (employee without a contract); 2. informal non-agricultural self-employed (own account workers and employers in enterprises with less than 5 persons and domestic workers); 3. informal agricultural self employed (own-account workers and employers in agriculture working on less than half national median size of land)
Tinson and Yemtsov (2008)	(1) unpaid contributing family workers, farmers on own farm and workers engaged in other activity (such as sale of agricultural products) and 2) workers not employed in the public sector or in international organizations AND whose pension contributions were not paid.
ILO Bureau of Statistics (2004)	(A) Employment in informal sector: employment in non registered enterprises including in agriculture for sale or barter but not agriculture for own consumption. Excluding households employing domestic employees. (B) Informal employment: 1. Own account and employers in non-registered enterprises; 2. contributing family workers; 3. employees for which employer does not pay social contributions or no paid annual leave or no paid sick leave; 4. self employed in production of agricultural goods for own consumption if 20hrs/week or more. Look at both primary and secondary employment.
Lehmann and Pignatti (2007)	1. Informal employees, for whom employment is not registered; 2. Informal self employed in activities that are not registered