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Sector and Informal Employment in Brazil

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Sector and Informal Employment in Brazil:

Analysis of the System of National Accounts New Series Results (2000/2006)

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Introduction

In March 2007, the Brazilian Institute of Geography and Statistics (in Portuguese: *Instituto Brasileiro de Geografia e Estatística* - IBGE) released the results of the new series of the Brazilian System of National Accounts (in Portuguese, *Sistema de Contas Nacionais do Brasil* - SCN) - reference 2000. The new reformulation of the Brazilian National Accounts was not motivated by a conceptual change in the system in contrast to the earlier one released in late 1997. Its main purpose was to incorporate all available data from the new statistics system together with some methodological improvement and a new classification of products and activities. The system continues being calculated with basis on a sequence of interconnected accounts and supply and use tables.

The main change to then current series was the introduction of new statistical sources such as IBGE's annual economic surveys comprising Mining and Manufacturing Industries, Construction, Wholesale and Retail Trade, and Services. Also incorporated into the system are household surveys such as the Consumer Expenditure Survey, the National Household Sample Survey, and the Urban Informal Economy.¹ Additionally, the annual information from

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¹ The National Household Sample Survey has an annual periodicity. The Consumer Expenditure Survey and the Urban Informal Economy have an irregular periodicity of around five years. The latest ones available that were used in the new series of the Brazilian System of National Accounts were both from 2003.

other institutions started to integrate the system database such as the Declaration of Economic-Legal Information of Corporations obtained from the Federal Revenue Secretariat and companies' yearly statements provided by regulatory agencies. This set of information enhances the quality of the SNA as it allows the existence of yearly structural benchmarks for its results encompassing not only the base year but also current years.

One other consideration about the changes incorporated into the SCN refers to the update of concepts and definitions in accordance with the latest recommendations of international organisms². The introduction of new data sources and methodological changes in the Brazilian System of National Accounts allows a greater detailing of the gross domestic product components with a view to both goods and services produced by economic activities and the allocation and distribution of income by institutional sectors.

Regarding this segment, the advances made in measuring the institutional sector households in the identification and the disaggregation of Non-profit Institutions Serving Households (NPISHs) and the transfer of agriculture corporations and micro-enterprises to the Non-financial Corporations Sector made it possible to improve the analysis of the Households sector as a whole, and its subdivisions, mainly the informal sector.

The main goal of this paper is to initially measure the Brazilian informal sector in view of the new opportunities for analysis that formed the basis of this review series, which being itself new, is still rather little explored. The proposed measurement of the informal sector, in turn, makes it an indispensable preliminary discussion of the conceptual differences between the production sector and informal employment, thus presenting the main methodological aspects of the discussions within the range of the International Labor Organization (ILO), and also considering the recently published review of the international handbook of national accounts, held by the United Nations Organization together with the International Commission of European Communities, the International Monetary Fund, the Organization for Economic Cooperation and Development, and the World Bank at the end of last year (SNA, 2008).

Thus the results concerning the generation of value added and number of jobs by production sector and type of employment in Brazil are presented between the years 2000 and

² Some new tax classifications, the change in volume indices for public administration activity and for financial activities, and the measuring of labor factor by jobs instead of by occupied persons. Details about specific revisions of the SNA new series are found in the 25 methodological notes available on the IBGE website: www.ibge.gov.br/home/estatistica/economia/contasnacionais/referencia2000/2005/default_SCN.shtm.

2006. The database used was the new series of the Brazilian SNA, the reference year is 2000 and the available data cover the period noted.

The study is divided into four sections besides this introduction. The first section focuses on the theoretical concept of the informal sector and informal employment in the context of the discussions held in the ILO since the 1970s. Following, in Section 2, a brief description of the concepts of productive sector and employment adopted by the Brazilian SNA is made to support the analysis of results presented in Section 3. Final considerations are found in the last section.

1. The concept of informal sector and its relationship with informal employment

The term informal sector was first identified in studies aimed at the World Employment Program conducted by the ILO since the early seventies. The report on employment, income and equality to Kenya has become a touchstone for discussions of the concept of the informal sector and had great influence on subsequent works carried out by the ILO in African and Asian countries (ILO, 1972). The debate continued with works carried out for the Regional Employment Program for Latin America and the Caribbean and other missions, being considered that from this framework a wide academic and technical production has highlighted the issue (Cacciamali, 1983).

The report on employment for Kenya was pioneer in recognizing the informal sector as a source of job opportunities and income for many people, despite often being regarded as unproductive and stagnant and not obtaining the government support that is traditionally allocated to various firms in the formal sector. Taking these aspects into account, the report proposes a positive attitude of the government in order to promote public policies directed to this sector³. Therefore, the term informal sector was first linked to the mode of organization of the production unit in a program that had among its main objectives “the proposal for research on strategies for economic development that had as the key variable the creation of jobs instead of a rapid product growth.” (Cacciamali, 1983).

The different objectives and characteristics of each country contributed to not having an agreement on the concept of informal economy. According to Rocha (1989), this fact led to the development of other approaches during the seventies such as the production structure and

³ With this regard, see recommendations for reaching this goal in ILO (1972).

the labor market. Cacciamalli (2000) moves on to recognize that the use of the term for describing informal sector workers and owners of micro and small production units presenting work and capital relations precariously bounded also allowed multiple approaches and different objects of study such as micro enterprises and own-account jobs, among others.

From the perspective of the production structure there are two different concepts of informal sector. One “arises from the notion of a company as regards its legal and administrative structure and it assumes that there is an intrinsic relationship between the non-registration and the notion of informality” (OECD, 2002). The other recognizes the informal sector as a particular way of production and defines it as the way in which businesses are organized and run their activities. This concept ensures that the informal sector is not the unregistered sector and assumes non-registration as a characteristic of the informal sector and not as a criterion to define it (OECD, 2002).

In 1993, during the Fifteenth International Conference of Labor Statisticians (15th ICLS), the ILO adopted an international definition for the informal sector from the operation and organization of production units. The Statistics Resolution on Employment in the Informal Sector (ILO, 1993) recommended that countries where this sector played an important role as source of employment and income and as a factor of economic and social development should introduce an employment information system to the informal sector⁴. The improvement of these statistics was considered strategic enough to render the development of public policies more effective to the informal sector.

Furthermore, the resolution incorporated the concept of the informal sector as part of the institutional sector households in the SNA and classified the production units of the informal sector into two components. The first includes the informal business of self-employed people. The second refers to the enterprises of informal employers⁵. Subsequently, this ILO document was included in the International Handbook of National Accounts - System of National Accounts, published in 1993 (SNA-93) - Chapter 4, encompassing units and institutional sectors. According to Hussmanns (2004), the inclusion of the definition of the informal sector in the SNA-93, “was considered essential as it would make it possible to identify the informal sector separately in the accounts and, hence, to quantify the contribution of the informal sector to the gross domestic product.”

⁴ It must be highlighted that the question of labor in this resolution had its allocation limited to the production sector. Thus labor in the informal sector refers to people who were employed in production units of that sector.

⁵ These enterprises are household production units which belong to and are managed by individual employers or in association with others and who hire one or more workers in a continuous mode. The household production units are in turn recognized by the SNA as distinct from incorporated firms. They undertake the production of goods and services and do not constitute legal entities seen as distinct and independent from household members.

This definition of informal sector in the 15th ICLS admitted both dimensions considered in the production structure approach by allowing that both the non-registration and the size of the business be used as a criterion for distinguishing enterprises in the informal sector from all others.

As to the questions concerning the labor market specifically, as it limits itself to employment in the informal sector, the 1993 ILO resolution introduces further discussions regarding the construction of an analytical category for the issue of informality in the labor market⁶.

In Brazil, for example, Ramos (2001) explored labor market evolution in the period between 1991 and 2001, whereby he presented an indicator named “the degree of informality” to describe the rate of “workers who are employed without legal contracts or self-employed out of the total of employees” in six Brazilian metropolitan regions. On the other hand, Menezes-Filho, Mendes, and Almeida (2004) investigating differences in wages between formal and informal sectors considered the contribution to the welfare office or the legal hiring as a criterion to define these sectors. Saboia (2004) also uses a similar definition for a regional analysis of informal employment based on Population Census 2000.

In 2003, during the 17th ICLS, the ILO released new guidelines that complemented the 1993 resolution on employment in the informal sector, including the notion of informal economy and the adoption of a definition of informal employment. Thus, once more it was agreed that when it regards the informal sector the perspective of production units is considered (enterprise approach) whereas employment is associated with the characteristics of either the persons involved in the activities or of their jobs (labor approach).

According to the 17th ICLS, the types of link to work that are considered in informal employment are: own-account workers and employers owning unincorporated enterprises with employees; family members contributing labor to enterprise without a formal contract of employment; employees in the same circumstances, i.e. the employment relationship is not under national labor legislation and social protection; members of informal producers cooperatives; and own-account workers engaged in the production of goods exclusively for own final household use.

The definition of informal labor presented by the 17th ICLS represents a considerable advance inasmuch as it includes as informal employment all the types of link to work

⁶ See Mata Greenwood (2002) and Hussmanns (2004).

described above, irrespective of the type of production unit where they are found, whether formal, informal or other household units (ILO, 2003).

The Employment Matrix reproduced below illustrates the possibilities of employment in the sectors and their classification as either formal or informal employment. This table was originally presented by the ILO for publication in 2002, Decent Work and the Informal Economy (ILO, 2002) and it is also present in the aforementioned revision of the Manual of National Accounts (SNA 2008).

FIGURE 1
Employment matrix proposed by the 17th ICLS

Production units by type	Own-account workers		Employers		Contributing family workers	Employees		Members of producers' cooperatives	
	Informal	Formal	Informal	Formal	Informal	Informal	Formal	Informal	Formal
Formal sector units					1	2			
Informal sector units*	3		4		5	6		8	
Other household units **	9					10			

(*) Excluding households employing paid domestic workers.
 (**) Households producing goods exclusively for their own final use and families who employ paid domestic workers.

Cells 1 to 6 and 8 to 10: informal employment;
 Cells 3 to 8: employment in the informal sector;
 Cells 1, 2, 9 and 10: informal employment outside the informal sector;
 Cells hatched: formal employment;
 Cells in gray: there are no jobs in the production units.

Source: Hussmanns (2004), "Statistical definition of informal employment: Guidelines endorsed by the 17th ICLS (2003)

Therefore, according to the 17th ICLS recommendations, employment in the informal sector includes the cases represented in cells 3 to 8 above, i.e. in the row referring to informal sector enterprises. Informal employment, in turn, covers cells 3 to 6 and 8. Cells 1, 2, 9 and 10 represent arrangements in informal labor in production units other than the informal ones.

2. Sector and employment in the Brazilian System of National Accounts

The methodology adopted by the Brazilian System of National Accounts incorporates the new international recommendations for calculation of aggregates for both production sector and employment. The classification of sector is related to the organizational form of production units whereas labor approach is concerned with the qualifications of the job link.

The value added according to the production sectors (formal, informal and other household units) is based on the classification of the SNA by institutional sector. SNA-93 (and also SNA-2008) defines each institutional sector as a set of institutional units that have similar key functions, behavior and objectives. These in turn are defined as economic entities that are capable, in their own right, of owning assets, incurring liabilities and engaging in economic activities and in transactions with other entities. For SNA purposes, such units are organized into five main institutional sectors: non-financial corporations, financial corporations, non-profit institutions serving households (NPISHs), general government, and households.

The first four institutional sectors are specific social or legal entities which are recognized by law. In the case of Brazil, the units that make up these institutional sectors have registration in the National Register of Legal Entities, the official public revenue organ, and may be considered constituents of the formal sector of the economy.

Although the SNA does not use the term "formal sector," it is not difficult to conceive of all units in the Corporations sector, General Government, and NPISHs as being part of it, as mentioned in the recent revision of the manual in paragraph 25.53 (SNA, 2008).

The Households institutional sector includes units of consumption and production. SNA-93 defines household as a small group of persons who share the same living accommodation, who pool some, or all, of their income and wealth and who consume certain types of goods and services collectively, mainly housing and food. This sector includes production units consisting of self-employed workers and employers of unincorporated enterprises. The expression "unincorporated enterprises" underlines the fact that the production unit is not an independent legal entity separated from the household members who own them.

The owner has a dual role, acting as both an entrepreneur responsible for creating the enterprise and as an employee that can be engaged in any kind of productive activity, namely: agriculture, mining, manufacturing, construction, retail distribution or the production of other

types of services (SNA, 1993, 4.144). Also contributors to the household institutional sector production are: agricultural units producing goods for their own consumption, rent imputed to residential property occupied by their owners, actual rent received by individuals, and paid domestic service.

The informal sector can be understood as a subdivision of the Households institutional sector in which are classified the non-agricultural production units characterized by a low level of organization and for not having a clear division between labor and capital as production factors and production of which is primarily designed for the market (UN, 2008).

The remaining household units—agriculture that develops market production or production for own final use, actual and imputed rent, and paid domestic service—complement the household institutional sector. In this study these activities will be set into another group named “other household units.” This group has almost the same characteristics as the one in the informal sector, except that its non-agricultural production is not geared primarily to the market, but rather to its own use or, in the case of actual rent, that the production is predominantly a case of capital gain.

As regards employment, the SNA admits the concept of jobs, defined as an explicit or implicit contract between a person and an institutional unit to perform work in return for compensation for a defined period of time or until further notice (SNA, 1993). A single person can have more than one job in different production units, one of which is considered principal. Each job can be associated with a type of link in the labor market.

The Brazilian SNA publishes employment results disaggregated by jobs with formal contracts (formal jobs) and non-formal ones (informal jobs). Formal jobs include employees with legal contracts, military workers, civil servants and employers of formal and incorporated enterprises. Informal jobs include employees without legal contracts and autonomous workers. These, in turn, include self-employed workers, informal employers and non-paid workers.

Based on the recent guidelines proposed by the ILO in the 17th ICLS the SNA considers that formal or informal employment may be found in any production sector. In fact, according to Figure 1 (employment matrix proposed by the 17th ICLS), it is clear that the informal sector in the SNA enrolls, in addition to informal jobs (self-employed, informal employers, non-paid workers and employees without formal contracts - corresponding to cells 3, 4, 5 and 6), a share of formal employment (employee with legal contracts in informal units

- cell 7). On the other hand, parts of informal employment are also found both in formal sector and other household units.

In line with the conceptual framework approached, below are presented the results related to production sectors and kinds of employment found in the Brazilian economy.

3. Results

This section presents the results of the gross value added disaggregated by the three production sectors proposed above, namely: formal, informal, and other household units as well as the employment composition in Brazil in recent years.

The selected data were obtained from the Brazilian SNA (SCN) publication which allows calculating the informal sector contribution in terms of value output or gross value added⁷ in relation to other economic sectors and also the employment by types of links in the labor market. The informal employment measurement could also be obtained from other sources such as household surveys. However, the use of SCN is preferable because it presents a series with both annual periodicity and national coverage. Moreover, it enables crossing data by production sectors and type of employment, in compliance with the ILO recommendation.⁸

The Brazilian informal sector analysis *vis a vis* other sectors was performed in the period between 2000 and 2006. The evolution of these three sectors indicates that since the start of the new series a reduction tendency has been observed in the rates of both informal and other household units sectors in relation to the total economy gross value added (Table 1). These sectors, which respectively represented 12.7% and 14.5% of the gross value added in 2000, have in a likewise manner fallen to 9.9% and 11.7% in 2006. Thus, the Households institutional sector as a whole experienced a decrease from 27.2% to 21.6% in participation in the economy's gross value added. Consequently, in the same period, the share of gross value added in the formal sector rose from 72.8% to 78.4%.

Incentives like general credit expansion, especially to micro and small-sized businesses, and measures to simplify and reduce taxes for these, must have contributed to the

⁷ Value added is the value of output less the value of intermediate consumption. It is a measure of contribution to GDP made by an individual producer, industry or sector.

⁸ IBGE's Urban Informal Economy Survey, which aims at delimiting informal sector by using production units as a starting point, is conducted at intervals of about five years and is restricted to urban regions alone. Conversely, the National Household Sample Survey gives out labor data by types of job links although not permitting their association with production units.

growth of formalization. In contrast, the gross value added of rental activity decreased, impacted mainly by price reduction in the period, which determined the reduction of other household units sector in generating total gross value added.⁹

TABLE 1

Gross value added by production sector: absolute value and percentage composition - from 2000 to 2006

	Formal		Informal		Other household units		Total	
	R\$ thousands	(%)	R\$ thousands	(%)	R\$ thousands	(%)	R\$ thousands	(%)
2000	744.169	72,8	129.543	12,7	147.936	14,5	1.021.648	100,0
2001	827.406	74,0	133.406	11,9	157.801	14,1	1.118.613	100,0
2002	947.905	74,5	148.972	11,7	176.252	13,8	1.273.129	100,0
2003	1.112.618	75,7	157.332	10,7	200.664	13,6	1.470.614	100,0
2004	1.283.453	77,0	167.387	10,0	215.418	12,9	1.666.258	100,0
2005	1.429.646	77,6	186.363	10,1	226.244	12,3	1.842.253	100,0
2006	1.595.792	78,4	200.682	9,9	238.260	11,7	2.034.734	100,0

Source: System of National Accounts, Brazilian Institute of Geography and Statistics (IBGE).

Table 2 unites employment statistics by types of link in the same period. The categories of employees with legal contracts, military workers, civil servants and employers of formal enterprises are clustered under formal jobs¹⁰. The estimate presented of informal jobs involves the group of employees without legal contracts and autonomous jobs, the latter consisting of own-account workers, informal employers, and non-paid workers.

⁹ Tables 10, 11 e 12 from IBGE publication: SCN 2005-2006 (IBGE,2008), annexed as A1, A2 e A3, detail value added share, volume and price variation to 55 SCN industries, respectively.

¹⁰ Table 14 from IBGE publication: SCN 2005-2006 (IBGE, 2008), annexed as A4, shows total of jobs by link types in the labor market according to 12 economic activities.

TABLE 2**Jobs by types of jobs link: with *versus* without formal links - 2000 to 2006**

	jobs with formal link		jobs without formal link				Total jobs	
	(thousands)	(%)	employees without legal contract		autonomous workers		(thousands)	(%)
			(thousands)	(%)	(thousands)	(%)	(thousands)	(%)
2000	30.128	38,2	18.633	23,6	30.211	38,3	78.972	100,0
2001	31.864	40,1	18.478	23,2	29.211	36,7	79.552	100,0
2002	32.931	39,9	19.275	23,3	30.423	36,8	82.629	100,0
2003	34.104	40,6	19.028	22,6	30.904	36,8	84.036	100,0
2004	35.965	40,8	20.402	23,1	31.886	36,1	88.252	100,0
2005	37.436	41,2	20.548	22,6	32.922	36,2	90.906	100,0
2006	39.543	42,4	20.940	22,5	32.764	35,1	93.247	100,0

Source: System of National Accounts, Brazilian Institute of Geography and Statistics (IBGE).

The data indicate that total employment rose in 14.2 million (from 78.9 million to 93.2 million of jobs) over the seven years of the series, which equates to an 18.1% increase. This job growth presented a differentiated behavior among the categories, especially in the final years of the series, when formal employment reached a gain of participation in relation to the other two.

Indeed the growth observed in formal employment was one of 31.3% between 2000 and 2006, whereas the expansion of informal employment was only 9.9% in the period. This formalization increase in the labor market in recent years has partially reversed the earlier deterioration movement of labor quality perceived by the considerable increase in participation of more precarious forms of job links—employees without legal contracts and self-employed workers—characteristic of the 1990s.¹¹

The upward trajectory undertaken by formal employment mainly from 2003 onwards, also identified in surveys exclusively dedicated to the labor market, is associated with a

¹¹ According to Dieese (2001), the 1990's were characterized by severe formal job shrinkage, salary reductions and significant fall into union's negotiation power.

relative increase in the use of labor force under legal contracts owing to the positive evolution of the Brazilian economic activity in these years.¹²

The value added and employment results according to production sectors in 2006 are presented in table 3. The simultaneous analysis of these data indicates that the informal sector contributed 9.9% to value added generation and responded by using 27.2% of labor force in Brazil. This figure shows the informal sector relevance in terms of labor absorption, a rather common feature of developing countries. The other household units sector participation in value added was 11.7% whereas in terms of jobs it was 22.3%. It was up to the formal sector to account for almost half the existing jobs in the country (50.4%), despite the fact that it showed much more significant weight in the generation of total value added (78.4%).

Table 3
Gross value added and employment according to production sector - 2006

Production sectors	Gross value added (1)		Employment (2)		(1) / (2)
	R\$ millions	(%)	in thousands	(%)	R\$ thousands / job
formal	1.595.792	78,4	47.004	50,4	34,0
informal	200.682	9,9	25.405	27,2	7,9
other household units*	238.260	11,7	20.838	22,3	11,4
total	2.034.734	100,0	93.247	100,0	21,8

Source: System of National Accounts, Brazilian Institute of Geography and Statistics (IBGE), 2006.

* It includes the agricultural units that produce goods for their own consumption, the rent imputed to residential property occupied by their owners, the actual rent received by individuals and the paid domestic service.

The explanation for this significant share of the formal sector in value added, with less use of jobs in relative terms, is related to the predominance of more productive capital and labor factors in these units. This is so because the most dynamic industrial activities and the ones that employ better skilled workers, such as some kinds of mining, metallurgic, chemical, electricity, gas and water industries, are totally or mostly incorporated into the formal sector.

The value added distribution by jobs, a productivity proxy option (third column of Table 3), shows that the outcome of the formal sector exceeds by more than four times the one of informal sector (R\$ 34.0 thousand to R\$ 7.9 thousand for job, in 2006). The presented

¹² According to the Labor Ministry, formal employment expansion reached 36.5% between 2000 and 2006. According to IBGE's National Household Sample Survey, formal employment rose by 25,0% between 2001 and 2006. Cardoso Jr (2007) attributed this recent increase in formal jobs to the change in exchange policy in 1999.

lower result for informal units does not cause surprise. Firstly, the difference between the economic activities incorporated in each sector must be considered. Secondly, it is broadly recognized that informal enterprises owners have, in general, low education and very limited access to credit, which considerably reduces potential production gains.¹³

Table 4 below is a simplification of the employment matrix as proposed by the 17th ICLS, referred to in section 1. It allows a better visualization of the relationships among variables and it consists an interesting resource for understanding different approaches by production sector and types of jobs. The crossing adopted occurs among the three production sectors and the three labor categories mentioned— jobs with legal contracts, jobs of employees without legal contracts and autonomous workers. The first corresponds to formal jobs whereas the other two correspond to informal jobs. The year chosen for the presentation was 2006 because it is the last one available in the series.

TABLE 4
Distribution of the employment by types of job links according production sectors - 2006

Production sector	formal link		non formal link				total	
			employees without a formal contract		autonomous workers			
	(thousands)	(%)	(thousands)	(%)	(thousands)	(%)	(thousands)	(%)
formal	36.791	78,3	8.933	19,0	1.280	2,7	47.004	100,0
informal	557	2,2	5.593	22,0	19.255	75,8	25.405	100,0
other household units*	2.194	10,5	6.415	30,8	12.229	58,7	20.838	100,0
total	39.542	42,4	20.941	22,5	32.764	35,1	93.247	100,0

Source: System of National Accounts, Brazilian Institute of Geography and Statistics (IBGE), 2006.

* It includes the agricultural units that produce goods for their own consumption, the rent imputed to residential property occupied by their owners, the actual rent received by individuals and the paid domestic service.

The bottom row of table 4 shows that out of the total 93 million jobs in 2006, 42.4% was formal ones, 22.5% was related to jobs of employees without legal contracts, and 35.1% to autonomous workers. The disaggregation of these job categories among production sectors

¹³ For characterizing the Brazilian urban informal sector, including disaggregation by economic activities, see IBGE (2003). For analyzing the determinants to Brazilian micro-entrepreneurs results, see Fontes (2009).

revealed that almost all of the 25.4 million jobs in the informal sector (97.8%) did not have legal contracts¹⁴ while only 2.2% had a formal job link.

This small share is represented by employees with legal contracts in informal units. These data were obtained from the national social security that has a special register which allows the employer to hire employees and collect social contributions without having a corporate enterprise. The group is composed largely of workers in construction activities and others related to health.

Unlike the informal sector where the vast majority of workers traditionally have informal jobs, employment distribution by type of links in formal sector showed different rates. In this sector, 21.7% of jobs were informal, and in most cases consisted of work of employees without legal contracts and a small portion of autonomous work, specifically for non-paid family members who pursued their activities in formally constituted companies. In turn, the other household units sector that has the lowest number of jobs, registered 10.5% of formal jobs, most of them consisting of paid domestic workers. As expected, other job categories that correspond to self-employed individuals and informal employees pursued activities in informal sector enterprises or other household units.

Final considerations

This study is mainly aimed at measuring the informal sector using as reference the Brazilian SNA new series. It also discusses the differences between production sectors and employment, from the conceptual and methodological approaches in the context of the ILO discussions that were incorporated into a recent international review of the SNA (UN, 2008).

It must be understood that the sector classification regards the form of organization of production units (enterprise approach) whereas the employment concept refers to the characteristics of job links (labor approach). Understanding these conceptual distinctions has enabled measuring these aggregates for the country using the system of national accounts new series database for the period between 2000 and 2006.

The informal sector annual share results in value added were compared with those obtained for the formal sector and for the remaining household institutional sector, herein

¹⁴ A greater number of these jobs are in activities involving construction, retail trade, and road transport, IBGE (2008).

named other household units. The employment data, in turn, were disaggregated by type of job links in the labor market in the same period.

The relations between production sectors and employment types, however, were presented only for the last available year (2006), from a simplified model of employment matrix proposed by the ILO. This choice was made in view of no major changes having been detected in its composition along the series.

Firstly it was concluded that the informal sector had a gradual loss in gross value added share in the economy along the series, moving from 12.7% to 9.9% between the years 2000 and 2006. The contrary movement was observed in the formal sector, which gained a more significant participation in the same period (from 72.8% to 78.4% of gross value added).

From the employment viewpoint, it was confirmed the advance of the formal jobs in relation to informal ones. The results showed that more than 9 million formal job links were created between 2000 and 2006, which corresponded to an increase share from 38.2% to 42.4% in this category in total jobs.

As expected, analyzing the relationship between output and employment according selected sectors in 2006 showed a reduced efficiency of work in informal sector due to its small contribution in the value added generation (9.9%) in comparison with a significant demand in labor—25 million jobs, i.e. 27.2% of total jobs in the economy. It was also verified that 97.8% of employment in the informal sector is composed of jobs of employees without legal contracts or by autonomous workers (informal jobs). On the other hand, formal sector which accounts for about 47 million jobs had an employment distribution by less homogeneous types of link, registering a significant frequency of informal employment, expressed by 10.2 million jobs, or 21, 7% of jobs in the sector.

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Appendix

TABLE A1

Share in gross value added at basic prices according to economic activities – 2001/06

Economic activities		Share in gross value added at basic prices (%)					
		2001	2002	2003	2004	2005	2006
Total		100,0	100,0	100,0	100,0	100,0	100,0
Agriculture, forestry and fishing		6,0	6,6	7,4	6,9	5,7	5,5
0101	Agriculture, forestry and logging	4,0	4,6	5,3	4,9	3,8	3,7
0102	Animal production and fishing	2,0	2,0	2,1	2,0	1,9	1,7
Manufacturing		26,9	27,1	27,8	30,1	29,3	28,8
0201	Crude petroleum and natural gas	0,9	1,0	1,1	1,1	1,6	2,1
0202	Metal ore mining	0,3	0,4	0,4	0,5	0,6	0,5
0203	Other mining	0,2	0,3	0,3	0,3	0,3	0,3
0301	Food and beverages	2,6	2,5	2,6	2,9	2,8	2,8
0302	Tobacco products	0,1	0,2	0,1	0,1	0,1	0,1
0303	Textile	0,8	0,7	0,7	0,7	0,7	0,7
0304	Wearing apparel and related products	0,8	0,7	0,6	0,6	0,6	0,6
0305	Leather and footwear articles	0,4	0,4	0,4	0,4	0,4	0,3
0306	Wood products - except furniture	0,4	0,5	0,5	0,5	0,4	0,4
0307	Cellulose and paper products	0,7	0,6	0,8	0,8	0,6	0,6
0308	Printing and reproduction for recorded media	0,8	0,8	0,8	0,8	0,8	0,7
0309	Coke and refined petroleum products	0,4	0,3	1,1	0,6	0,7	0,3
0310	Processing of alcohol fuel	0,3	0,3	0,5	0,3	0,3	0,4
0311	Chemical products	0,8	0,6	0,7	0,8	0,6	0,5
0312	Manufacture of basic chemicals	0,2	0,2	0,3	0,4	0,3	0,3
0313	Pharmaceutical products	0,7	0,6	0,6	0,6	0,7	0,7
0314	Pesticides and agrochemical products	0,1	0,1	0,1	0,2	0,1	0,1
0315	Soap and detergents, cleaning, polishing, perfumes, and toilet prepara	0,4	0,4	0,3	0,4	0,3	0,3
0316	Paints, varnishes and similar coatings, printing ink and mastics	0,1	0,1	0,1	0,1	0,1	0,1
0317	Other chemical products	0,2	0,2	0,2	0,2	0,2	0,2
0318	Rubber and plastic products	0,6	0,6	0,7	0,7	0,7	0,7
0319	Manufacture of cement	0,2	0,2	0,3	0,2	0,1	0,2
0320	Other non-metallic mineral products	0,5	0,5	0,5	0,5	0,5	0,6
0321	Manufacture of steel and related products	0,6	0,7	0,8	1,4	1,1	0,9
0322	Casting of non-ferrous metals	0,4	0,4	0,4	0,4	0,4	0,5
0323	Metal products - except machinery and equipment	1,0	1,0	1,0	1,1	1,2	1,0
0324	Machinery and equipment, including repair and maintenance	1,0	1,0	1,0	1,0	0,9	1,0
0325	Domestic appliances	0,1	0,1	0,1	0,1	0,1	0,1
0326	Office machinery and computer equipment	0,1	0,1	0,1	0,1	0,1	0,1
0327	Electrical machinery, appliances and supplies	0,5	0,5	0,5	0,5	0,6	0,6
0328	Electronic components and communication equipment	0,3	0,2	0,2	0,3	0,3	0,2
0329	Medical and dental instruments and supplies, measuring and optical pr	0,3	0,3	0,3	0,3	0,3	0,3
0330	Automobiles and vans	0,2	0,1	0,1	0,3	0,2	0,3
0331	Trucks and buses	0,1	0,1	0,1	0,1	0,1	0,1
0332	Manufacture of parts and accessories for motor vehicles and their engi	0,6	0,6	0,5	0,7	0,8	0,8
0333	Manufacture of transport equipment	0,4	0,5	0,4	0,3	0,3	0,3
0334	Furniture and products manufacturing industries n.e.c.	0,8	0,8	0,7	0,8	0,8	0,7
0401	Electricity, gas, water supply, sewerage and waste management	3,0	3,3	3,4	3,9	3,8	3,8
0501	Construction	5,3	5,3	4,7	5,1	4,9	4,7
Services		67,1	66,3	64,8	63,0	65,0	65,8
0601	Wholesale and retail trade	10,7	10,2	10,6	11,0	11,2	11,5
0701	Transport, storage, and postal activities	5,0	4,8	4,7	4,7	5,0	4,8
0801	Information services activities	3,5	3,6	3,6	3,8	4,0	3,8
0901	Financial and insurance activities	6,8	7,5	7,1	5,8	7,1	7,2
1001	Real estate and rent activities	10,7	10,2	9,6	9,1	9,0	8,7
1101	Maintenance and repair services	1,2	1,2	1,1	1,0	1,0	1,0
1102	Accommodation and food service activities	1,8	1,8	1,6	1,6	1,6	1,8
1103	Office administrative, business, and other support service activities	4,4	4,4	4,5	4,5	4,6	4,8
1104	Education - except public education	1,3	1,4	1,4	1,4	1,2	1,2
1105	Human health - except public human health	2,2	2,1	1,9	1,9	1,8	2,0
1106	Other service activities	3,9	3,7	3,6	3,5	3,6	3,7
1201	Public education	3,7	3,8	3,6	3,2	3,3	3,4
1202	Public human health	1,7	1,9	1,8	1,8	1,8	1,8
1203	Public administration and defence, compulsory social security	10,1	9,9	9,7	9,6	10,0	10,1

Source: System of National Accounts, Brazilian Institute of Geography and Statistics (IBGE).

TABLE A2
Gross value added at basic prices volume variation according to economic activities – 2001/06

Economic activities		Gross value added at basic prices volume variation (%)					
		2001	2002	2003	2004	2005	2006
Total		1,4	3,1	1,2	5,6	3,0	3,7
Agriculture, forestry and fishing		6,1	6,6	5,8	2,3	0,3	4,5
0101	Agriculture, forestry and logging	7,8	8,6	6,9	2,4	(-) 0,5	5,3
0102	Animal production and fishing	2,9	2,7	3,3	2,2	2,3	2,9
Manufacturing		(-) 0,6	2,1	1,3	7,9	2,1	2,3
0201	Crude petroleum and natural gas	5,5	16,5	3,9	(-) 1,9	11,7	3,6
0202	Metal ore mining	(-) 2,0	1,3	8,5	15,3	12,5	9,1
0203	Other mining	(-) 4,7	4,8	2,3	13,4	(-) 3,8	(-) 0,3
0301	Food and beverages	7,8	5,9	(-) 0,0	4,9	0,4	2,9
0302	Tobacco products	(-) 6,1	30,4	(-) 5,3	19,9	(-) 0,1	3,3
0303	Textile	2,4	(-) 4,9	(-) 1,4	11,5	2,1	(-) 2,5
0304	Wearing apparel and related products	(-) 13,2	1,9	(-) 9,0	(-) 0,3	(-) 4,7	(-) 5,3
0305	Leather and footwear articles	5,8	1,4	(-) 1,1	2,7	(-) 2,7	(-) 2,8
0306	Wood products - except furniture	(-) 5,9	0,3	6,8	12,4	(-) 2,7	(-) 0,3
0307	Cellulose and paper products	8,6	(-) 1,4	8,2	13,6	7,1	3,5
0308	Printing and reproduction for recorded media	3,6	6,4	1,2	1,7	8,4	2,4
0309	Coke and refined petroleum products	27,3	(-) 16,6	(-) 1,1	(-) 2,0	(-) 0,7	(-) 7,6
0310	Processing of alcohol fuel	(-) 3,7	7,8	17,3	(-) 5,9	3,1	6,4
0311	Chemical products	(-) 11,1	11,9	8,8	(-) 1,3	(-) 3,8	0,7
0312	Manufacture of basic chemicals	18,3	19,4	16,8	1,8	(-) 13,2	(-) 4,4
0313	Pharmaceutical products	(-) 0,6	(-) 0,2	(-) 2,2	3,5	12,6	2,8
0314	Pesticides and agrochemical products	(-) 6,0	11,2	14,4	6,7	10,5	(-) 2,7
0315	Soap and detergents, cleaning, polishing, perfumes, and toilet preparal	1,9	8,8	0,8	11,8	3,6	1,7
0316	Paints, varnishes and similar coatings, printing ink and mastics	(-) 25,8	(-) 0,5	3,3	10,3	3,5	7,7
0317	Other chemical products	(-) 22,1	(-) 1,6	(-) 0,6	15,1	2,1	(-) 10,6
0318	Rubber and plastic products	(-) 6,5	(-) 3,7	(-) 3,5	9,9	3,0	1,1
0319	Manufacture of cement	(-) 1,6	(-) 1,3	(-) 6,7	12,6	9,4	5,4
0320	Other non-metallic mineral products	(-) 2,9	0,5	4,1	8,0	(-) 0,2	1,7
0321	Manufacture of steel and related products	(-) 1,5	2,3	2,5	10,3	(-) 3,3	(-) 3,0
0322	Casting of non-ferrous metals	(-) 3,6	(-) 3,2	7,0	8,5	0,9	3,1
0323	Metal products - except machinery and equipment	12,5	(-) 2,8	1,5	15,9	(-) 0,3	0,9
0324	Machinery and equipment, including repair and maintenance	6,4	1,0	5,2	17,7	(-) 0,9	2,5
0325	Domestic appliances	(-) 16,9	7,8	3,7	13,1	(-) 4,6	10,0
0326	Office machinery and computer equipment	(-) 41,7	10,9	19,3	63,5	11,1	56,7
0327	Electrical machinery, appliances and supplies	3,0	(-) 8,0	1,7	14,4	5,6	3,7
0328	Electronic components and communication equipment	(-) 32,7	2,7	(-) 1,9	7,0	4,9	(-) 2,6
0329	Medical and dental instruments and supplies, measuring and optical pi	(-) 2,9	5,9	0,4	9,5	(-) 0,2	5,2
0330	Automobiles and vans	13,6	1,5	5,7	21,5	14,2	8,3
0331	Trucks and buses	0,7	(-) 2,9	21,3	46,7	14,1	(-) 7,3
0332	Manufacture of parts and accessories for motor vehicles and their engi	0,1	2,0	5,1	24,7	(-) 0,6	0,5
0333	Manufacture of transport equipment	19,0	18,9	3,7	4,4	3,2	(-) 1,7
0334	Furniture and products manufacturing industries n.e.c.	(-) 1,6	3,7	(-) 5,5	10,4	1,0	6,1
0401	Electricity, gas, water supply, sewerage and waste management	(-) 6,2	2,9	4,0	8,4	3,0	3,5
0501	Construction	(-) 2,1	(-) 2,2	(-) 3,3	6,6	1,8	4,7
Services		1,9	3,2	0,8	5,0	3,7	4,2
0601	Wholesale and etail trade	(-) 0,0	(-) 0,0	(-) 0,5	7,5	3,5	6,0
0701	Transport, storage, and postal activities	2,4	2,8	(-) 3,1	5,9	3,5	2,1
0801	Information services activities	5,3	5,0	4,4	5,5	4,0	1,6
0901	Financial and insurance activities	1,2	2,3	(-) 4,8	3,7	5,3	8,4
1001	Real estate and rent activities	4,5	4,4	3,4	3,9	4,7	3,0
1101	Maintenance and repair services	(-) 3,9	(-) 1,8	2,9	1,6	1,6	5,6
1102	Accommodation and food service activities	0,1	4,9	3,4	5,1	6,3	6,0
1103	Office administrative, business, and other support service activities	(-) 3,3	6,4	(-) 0,3	7,4	7,2	4,3
1104	Education - except public education	5,1	6,7	1,7	6,4	3,1	0,4
1105	Human health - except public human health	2,3	(-) 0,1	0,7	3,9	4,7	3,9
1106	Other service activities	(-) 0,5	6,1	(-) 0,6	4,7	4,1	3,7
1201	Public education	1,3	2,1	3,3	4,7	(-) 1,1	(-) 0,2
1202	Public human health	7,6	4,6	3,5	(-) 0,0	4,1	6,8
1203	Public administration and defence, compulsory social security	3,1	3,9	2,7	4,2	1,2	3,9

Source: System of National Accounts, Brazilian Institute of Geography and Statistics (IBGE).

TABLE A3

Gross value added at basic prices price variation according to economic activities – 2001/06

Economic activities		Gross value added at basic prices price variation (%)					
		2001	2002	2003	2004	2005	2006
Total		7,9	10,4	14,1	7,3	7,4	6,5
Agriculture, forestry and fishing		10,1	18,3	21,8	3,7	(-) 9,0	1,2
0101	Agriculture, forestry and logging	10,6	23,3	22,4	3,7	(-) 14,0	2,9
0102	Animal production and fishing	9,0	8,0	20,5	3,6	3,2	(-) 2,3
Manufacturing		7,0	12,0	17,4	13,6	5,3	6,1
0201	Crude petroleum and natural gas	(-) 3,4	1,0	22,9	18,8	47,8	38,8
0202	Metal ore mining	14,6	41,0	14,4	26,2	8,7	(-) 10,9
0203	Other mining	(-) 7,2	20,7	6,4	24,3	(-) 4,2	10,8
0301	Food and beverages	16,8	1,6	20,5	20,7	5,0	6,6
0302	Tobacco products	16,8	0,5	(-) 13,5	(-) 3,5	(-) 12,0	34,8
0303	Textile	6,7	6,6	11,7	7,7	6,2	5,9
0304	Wearing apparel and related products	3,2	0,2	16,8	13,4	14,8	16,9
0305	Leather and footwear articles	26,0	17,1	9,1	5,6	9,3	0,3
0306	Wood products - except furniture	16,2	22,2	8,1	5,1	(-) 7,9	9,1
0307	Cellulose and paper products	(-) 9,9	7,8	27,2	3,5	(-) 23,5	11,6
0308	Printing and reproduction for recorded media	(-) 8,9	2,4	17,3	15,2	(-) 3,8	1,4
0309	Coke and refined petroleum products	(-) 29,0	7,4	365,0	(-) 35,0	17,6	(-) 52,3
0310	Processing of alcohol fuel	2,6	27,3	38,9	(-) 29,1	10,6	31,2
0311	Chemical products	74,7	(-) 12,7	11,9	30,4	(-) 9,1	(-) 8,3
0312	Manufacture of basic chemicals	(-) 16,1	(-) 1,8	44,5	56,0	2,6	7,3
0313	Pharmaceutical products	(-) 3,6	7,9	15,9	4,9	17,3	13,6
0314	Pesticides and agrochemical products	23,0	24,4	(-) 24,1	229,3	(-) 41,1	(-) 6,1
0315	Soap and detergents, cleaning, polishing, perfumes, and toilet preparat	(-) 13,6	11,6	(-) 8,5	21,3	(-) 13,3	6,5
0316	Paints, varnishes and similar coatings, printing ink and mastics	33,4	6,7	13,0	5,4	27,4	0,1
0317	Other chemical products	30,3	24,0	15,0	5,8	(-) 3,5	15,6
0318	Rubber and plastic products	10,9	16,3	38,6	13,2	10,1	4,9
0319	Manufacture of cement	11,2	34,7	64,2	(-) 28,7	(-) 37,4	40,3
0320	Other non-metallic mineral products	11,0	8,0	16,1	15,7	5,3	17,1
0321	Manufacture of steel and related products	(-) 8,7	40,8	28,1	76,7	(-) 9,4	(-) 8,5
0322	Casting of non-ferrous metals	10,4	30,0	15,3	1,4	8,3	20,7
0323	Metal products - except machinery and equipment	24,6	11,5	12,9	4,1	27,2	(-) 9,0
0324	Machinery and equipment, including repair and maintenance	19,2	9,6	16,1	(-) 4,7	2,7	14,8
0325	Domestic appliances	5,7	10,1	36,0	13,9	(-) 7,1	17,8
0326	Office machinery and computer equipment	27,1	12,8	(-) 51,3	18,6	(-) 4,8	(-) 4,8
0327	Electrical machinery, appliances and supplies	15,4	35,6	8,3	5,1	14,8	6,6
0328	Electronic components and communication equipment	24,7	(-) 14,8	14,8	27,6	0,4	(-) 4,9
0329	Medical and dental instruments and supplies, measuring and optical pi	9,2	6,2	9,3	1,6	13,5	11,3
0330	Automobiles and vans	(-) 52,6	(-) 17,3	(-) 0,8	106,3	(-) 39,3	74,5
0331	Trucks and buses	0,1	(-) 0,6	(-) 5,9	1,6	(-) 14,5	0,5
0332	Manufacture of parts and accessories for motor vehicles and their engi	16,1	11,5	8,9	22,8	17,3	12,1
0333	Manufacture of transport equipment	25,2	22,6	(-) 6,8	(-) 18,5	14,4	15,3
0334	Furniture and products manufacturing industries n.e.c.	9,4	12,1	9,3	6,5	8,2	(-) 0,1
0401	Electricity, gas, water supply, sewerage and waste management	3,0	22,2	14,8	18,4	5,6	4,9
0501	Construction	7,8	15,5	6,0	15,5	4,5	1,9
Services		8,2	9,0	11,9	4,9	10,1	7,2
0601	Wholesale and retail trade	10,4	8,3	20,9	9,7	8,2	7,1
0701	Transport, storage, and postal activities	10,9	5,2	16,3	7,6	12,8	5,6
0801	Information services activities	0,9	10,5	12,6	14,0	9,8	3,5
0901	Financial and insurance activities	23,5	22,0	15,1	(-) 10,3	27,4	4,0
1001	Real estate and rent activities	(-) 1,0	4,6	5,2	2,7	4,8	3,1
1101	Maintenance and repair services	6,2	11,8	6,3	0,3	7,0	10,2
1102	Accommodation and food service activities	12,4	8,3	(-) 4,8	10,9	6,0	15,3
1103	Office administrative, business, and other support service activities	6,3	7,5	17,3	6,2	5,8	10,3
1104	Education - except public education	(-) 5,8	12,1	13,7	5,0	(-) 11,0	15,2
1105	Human health - except public human health	10,2	5,0	7,2	5,6	2,3	15,7
1106	Other service activities	6,4	2,8	12,0	5,9	10,1	8,1
1201	Public education	5,1	14,1	6,9	(-) 2,4	14,4	14,9
1202	Public human health	0,8	17,7	8,6	15,1	2,0	5,6
1203	Public administration and defence, compulsory social security	14,1	7,2	10,2	7,4	13,5	7,3

Source: System of National Accounts, Brazilian Institute of Geography and Statistics (IBGE).

TABLE A4
Total of Jobs by types of link in labor market according to economic activities— 2001/06

Economic activities	Total of Jobs			
	Total	Types of link in labor market		
		jobs with formal link	jobs without formal link	
			employees without legal contract	autonomous workers
2001				
Total	79 544 414	31 856 056	18 477 753	29 210 605
01 Agriculture, hunting, forestry and fishing	16 902 498	1 893 073	3 366 802	11 642 623
Mining, manufacturing, electricity, gas and water supply, and construction	15 302 635	6 449 237	3 539 958	5 313 440
02 Mining and quarrying	234 885	119 366	63 147	52 372
03 Manufacturing	9 352 258	4 983 580	1 753 734	2 614 944
04 Electricity, gas and water supply	357 267	260 866	96 401	-
05 Construction	5 358 225	1 085 425	1 626 676	2 646 124
Services	47 339 281	23 513 746	11 570 993	12 254 542
06 Wholesale and retail trade; repair of motor vehicles; hotels and restaurants	12 766 045	5 807 071	1 989 541	4 969 433
07 Transport, storage and communication	3 337 218	1 444 488	591 658	1 301 072
08 Information service activities	1 248 402	389 922	424 796	433 684
09 Financing and insurance activities	856 978	663 145	147 039	46 794
10 Real estate and renting activities	551 053	206 714	136 049	208 290
11 Other services	20 218 615	7 736 762	7 240 170	5 241 683
12 Public administration, health and education; compulsory social security	8 360 970	7 265 644	1 041 740	53 586
2002				
Total	82 629 067	32 931 074	19 274 531	30 423 462
01 Agriculture, hunting, forestry and fishing	17 353 605	1 853 109	3 335 544	12 164 952
Mining, manufacturing, electricity, gas and water supply, and construction	15 850 088	6 552 191	3 582 069	5 715 828
02 Mining and quarrying	248 402	123 963	61 497	62 942
03 Manufacturing	9 650 550	5 055 444	1 887 643	2 707 463
04 Electricity, gas and water supply	342 419	279 946	62 473	-
05 Construction	5 608 717	1 092 838	1 570 456	2 945 423
Services	49 425 374	24 525 774	12 356 918	12 542 682
06 Wholesale and retail trade; repair of motor vehicles; hotels and restaurants	13 545 847	6 087 778	2 197 871	5 260 198
07 Transport, storage and communication	3 528 838	1 488 907	598 798	1 441 133
08 Information service activities	1 315 897	371 790	486 967	457 140
09 Financing and insurance activities	886 177	680 298	156 791	49 088
10 Real estate and renting activities	544 114	240 649	124 524	178 941
11 Other services	21 021 546	8 100 477	7 811 953	5 109 116
12 Public administration, health and education; compulsory social security	8 582 955	7 555 875	980 014	47 066
2003				
Total	84 034 981	34 102 742	19 028 362	30 903 877
01 Agriculture, hunting, forestry and fishing	17 660 548	1 942 650	3 431 783	12 286 115
Mining, manufacturing, electricity, gas and water supply, and construction	16 002 247	6 755 310	3 433 288	5 813 649
02 Mining and quarrying	252 584	128 428	57 932	66 224
03 Manufacturing	9 984 712	5 285 760	1 822 285	2 876 667
04 Electricity, gas and water supply	355 649	288 069	67 580	-
05 Construction	5 409 302	1 053 053	1 485 491	2 870 758
Services	50 372 186	25 404 782	12 163 291	12 804 113
06 Wholesale and retail trade; repair of motor vehicles; hotels and restaurants	13 944 252	6 228 147	2 212 131	5 503 974
07 Transport, storage and communication	3 570 817	1 520 700	624 470	1 425 647
08 Information service activities	1 399 560	428 775	478 943	491 842
09 Financing and insurance activities	919 422	705 903	161 653	51 866
10 Real estate and renting activities	545 467	241 123	117 918	186 426
11 Other services	21 195 531	8 481 675	7 611 085	5 102 771
12 Public administration, health and education; compulsory social security	8 797 137	7 798 459	957 091	41 587

Source: System of National Accounts, Brazilian Institute of Geography and Statistics (IBGE).

TABLE A4 (continued)
Total of Jobs by types of link in labor market according to economic activities— 2001/06

Economic activities	Total of Jobs			
	Total	Types of link in labor market		
		jobs with formal link	jobs without formal link	
		employees without legal contract	autonomous workers	
2004				
Total	88 252 473	35 964 746	20 401 954	31 885 773
01 Agriculture, hunting, forestry and fishing	18 873 744	2 199 921	3 567 033	13 106 790
Mining, manufacturing, electricity, gas and water supply, and construction	17 067 388	7 724 412	3 639 314	5 703 662
02 Mining and quarrying	274 130	142 393	58 225	73 512
03 Manufacturing	10 809 822	6 031 648	1 937 925	2 840 249
04 Electricity, gas and water supply	369 777	290 252	79 525	-
05 Construction	5 613 659	1 260 119	1 563 639	2 789 901
Services	52 311 341	26 040 413	13 195 607	13 075 321
06 Wholesale and retail trade; repair of motor vehicles; hotels and restaurants	14 189 080	6 325 406	2 327 833	5 535 841
07 Transport, storage and communication	3 658 359	1 572 532	623 747	1 462 080
08 Information service activities	1 444 505	476 142	491 450	476 913
09 Financing and insurance activities	906 909	711 649	147 272	47 988
10 Real estate and renting activities	534 466	238 185	117 444	178 837
11 Other services	22 441 899	8 663 135	8 435 804	5 342 960
12 Public administration, health and education; compulsory social security	9 136 123	8 053 364	1 052 057	30 702
2005				
Total	90 905 673	37 436 349	20 547 657	32 921 667
01 Agriculture, hunting, forestry and fishing	18 980 620	2 204 714	3 575 237	13 200 669
Mining, manufacturing, electricity, gas and water supply, and construction	18 194 779	8 179 462	3 583 525	6 431 792
02 Mining and quarrying	275 704	154 530	44 088	77 086
03 Manufacturing	11 673 764	6 395 345	1 891 548	3 386 871
04 Electricity, gas and water supply	372 432	302 770	69 662	-
05 Construction	5 872 879	1 326 817	1 578 227	2 967 835
Services	53 730 274	27 052 173	13 388 895	13 289 206
06 Wholesale and retail trade; repair of motor vehicles; hotels and restaurants	14 799 874	6 726 238	2 399 090	5 674 546
07 Transport, storage and communication	3 791 040	1 726 025	615 094	1 449 921
08 Information service activities	1 558 030	506 173	531 135	520 722
09 Financing and insurance activities	919 809	708 667	161 924	49 218
10 Real estate and renting activities	568 907	256 030	123 838	189 039
11 Other services	22 792 031	9 034 003	8 396 776	5 361 252
12 Public administration, health and education; compulsory social security	9 300 583	8 095 037	1 161 038	44 508
2006				
Total	93 246 963	39 542 509	20 940 113	32 764 341
01 Agriculture, hunting, forestry and fishing	18 400 802	2 200 927	3 379 556	12 820 319
Mining, manufacturing, electricity, gas and water supply, and construction	18 226 920	8 250 443	3 681 370	6 295 107
02 Mining and quarrying	271 077	162 431	44 299	64 347
03 Manufacturing	11 643 049	6 481 586	1 920 831	3 240 632
04 Electricity, gas and water supply	380 027	303 400	76 627	-
05 Construction	5 932 767	1 303 026	1 639 613	2 990 128
Services	56 619 241	29 091 139	13 879 187	13 648 915
06 Wholesale and retail trade; repair of motor vehicles; hotels and restaurants	15 480 735	7 466 500	2 371 931	5 642 304
07 Transport, storage and communication	3 924 013	1 804 400	653 180	1 466 433
08 Information service activities	1 684 699	576 428	545 639	562 632
09 Financing and insurance activities	931 230	716 670	150 802	63 758
10 Real estate and renting activities	604 527	273 100	136 221	195 206
11 Other services	24 211 167	9 681 562	8 838 626	5 690 979
12 Public administration, health and education; compulsory social security	9 782 870	8 572 479	1 182 788	27 603

Source: System of National Accounts, Brazilian Institute of Geography and Statistics (IBGE).