REPUBLIC OF RWANDA

NATIONAL INSTITUTE OF STATISTICS OF RWANDA

LABOUR MARKET AND ECONOMIC ACTIVITY TRENDS IN RWANDA

Analysis of the EICV2 Survey

Final Report

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Acknowledgements

The OPM team is grateful to Dr Louis Munyakazi, The Director General of NISR and his team for their support and inputs into this report. We are particularly grateful to Innocent Niyonsaba for sharing his experience and knowledge of the EICV surveys and for assisting the team in many practical ways during their visit, and to Yussuf Murangwa for his input to this report.

The team also thanks everybody for his peer review and valuable comments on the report.

DFID is particularly thanked for funding this report and for making this analysis possible within such a short time of the completion of fieldwork.

Disclaimer

The views expressed in this report are those of the authors and should not be attributed to the organisations to which they are affiliated or to DFID, which funded this report.

Executive summary

Economic activity rates

Activity rates have fallen both for children and for adults. The main reason for the fall in rates is that a higher proportion of children and young adults are in full time education. Some 1.2% of the adult population was unemployed, that is not working but seeking work in the long reference period of 12 months, this is 0.2% higher than the corresponding figure in 2000/01. In the week previous to the survey, some 7.9% of the usually working population were not at work, while an additional 0.6% were reported as unemployed, indicating a small amount of seasonal unemployment. Underemployment is discussed later in the report.

Female activity rates are a little higher than those for males. Many people work beyond 65 years of age, and there has been little change in the proportion of those economically active in this group, with less than a quarter of all persons aged over 65 years having stopped work.

Child labour

Child employment, defined as persons younger than 15 years who are working in an economic activity, either for reward or in a family farm or business, has fallen from 9.6% in EICV1 to 5.3% in EICV2. Three quarters of all children under 15 years who do work are doing so in agriculture. Of the rest, some 19% work in the service sector, with girls slightly more likely to do so than boys, and boys slightly more likely to be in commerce. Fewer than half the children worked the whole year, with only 44% working all 12 months.

Provincial activity rates

Of the provinces only in Kigali have the economic activity rates increased between the surveys; although its overall rate is lower than other provinces due to the high incidence of students. Nationally the number of employed people has grown by almost a quarter since EICV1, with the highest growth rate recorded for Eastern Province (36%) and the lowest in Northern Province (9%). Male employment growth has outstripped female employment growth in the five year period; only in Kigali city has female job growth outstripped that of males.

Changes in job status

The vast majority of economically active adults in Rwanda are subsistence farmers working on family farms, however the number of subsistence farmers has remained static nationally. In the EICV1 survey 85% of the working population was classified as subsistence farmers in their main job (either independent farm workers or unpaid family farm workers). By EICV2 the proportion had reduced to 71%, a reduction of some 14%. In contrast the proportion of people working as paid employees has increased between the surveys, as have the numbers running small non-farm enterprises. Increases in non-farm activities over the five year period are also marked, with a doubling of those working in waged non-farm jobs and a quadrupling of those working in non-farm family enterprises. In proportionate terms the numbers are small, but given that the number of subsistence farmers has remained static, the increase in the rural workforce of some half a million has largely been absorbed by waged farm work and non-farm work.

Gender and economic activity

For women the largest numerical change in the workforce structure has been the increase in paid agricultural work (the poorest paid of all work), while for men the largest increase is in paid non-agricultural work. Although the increase in waged farm jobs is the same number for both sexes, the biggest numerical change for men is in non-farm work. Of the increase in waged non-farm work, three quarters of the additional jobs have been captured by males, with only a quarter of the increase going to women. There has been growth in small business opportunities for both sexes, but again more men have taken up small businesses than women.

The working population over 15 years of age is estimated to be 4.38 million people, of which just under two million are male and 2.4 million female; females are the majority of the workforce. In urban areas the distribution by gender is equal, but in rural areas 60% of the working adult population is female.

Structure of the workforce

The majority of the workers live in rural areas: 3.7 million workers live in rural areas, where 86% work in agriculture, forestry or fishing as their main jobs. Even in urban areas outside Kigali, the majority are also employed in agriculture. Trade is the second most numerous industrial activity for working people: 7% overall but rising to 23% of workers in Kigali. In occupation terms, after farming, the trade and service sectors are the largest, accounting for 6% each. These jobs include salespeople, cooks, waiters, cleaners, security and personal care personnel.

Education and non-farm work

Educational attainment has a large impact on a workers ability to move out of agriculture, the completion of primary school and the participation in secondary or vocational training is a watershed in moving into non-agricultural work. 90% of those who have never been to school are in agriculture as are over three quarters of those who reached primary grade 6 or 7. On moving to post-primary education only half are in agriculture, this falls to a half and continues to fall as the levels of education rise.

Recent job changes

Around 240,000 people start a new job each year (excluding those responsible for family farms for whom we have no information), and 1.45 million jobs have been taken by workers in the last five years. The majority of new job takers are young, with the median age at 22 years. Those starting work on family farms are youngest, and those starting a small enterprise are oldest, on average 28 years. New job holders in Kigali are older than their counterparts in other provinces.

The majority of new work opportunities are on farms: 45% of those taking jobs start work on family farms and 12% work for wages on farms belonging to other households. Almost a quarter of jobs taken in the last five years are non-farm waged work, while 19% of jobs are in small enterprises.

Newly started jobs were examined by the workers expenditure quintile, and compared with the quintiles for all job holders. The recently acquired jobs are held by people who are rather more prosperous than the national average. This slightly more affluent profile holds for all job types.

Younger workers

Young workers will become an increasing feature of the labour market. One million more people will become 15 years old in the course on the next five years. Currently only 100,000 of this cohort are economically active. Beyond the next five years the numbers will increase dramatically as the rising birth rates and falling death rates have an impact. The pattern of employment for younger workers differs by gender: three quarters of young women go to work on the family farm, as do half of young men. Another quarter of young men take waged work, half in farming and half in other industries. The remainder, smaller proportions, find work in the other component of the economy.

Small businesses

In the course of the year 665,000 private non-agricultural businesses were identified in the EICV2, and of these 80% were run as sole proprietor operations with no employees. Around 90% of these household enterprises are in the informal sector, of which 308,000 are main jobs for their owners. Two thirds of these enterprises are in the trade sector, and only 11% are in manufacturing. As access to credit was a problem for one in five enterprises. Eighty-four percent had not sought credit from a formal lending institution, and of those who had, 4% were unsuccessful. Household savings (65%) and parents (10%) were the most frequent sources of credit and together accounted for three quarters of lending in the previous 12 months. This may explain why business proprietors are older (median 32 years) than their employee counterparts (27 years), as they would need to save in order to start a business.

Businesses operating as a main job have been operating for four years on average; however manufacturing and recreation industries have a longer life than those in trade, the largest category.

Formal and informal sectors

While most waged farm work is in the informal sector (91%), a much higher proportion (40%) of non-farm employees work in the formal sector. The majority of non-farm employees are engaged in the public sector, including parastatal companies. Only 17% of non-farm formal sector employees are in the private sector.

By adding together the estimates of the formal sector employment in waged work and enterprises, it is estimated that around 270,000 persons over 15 years are employed in the formal sector, or 6% of all working adults. This proportion rises to 27% for all non-farm employment. The vast majority of those working are in the informal sector, which comprises over 4.1 million adults. The definition of the informal sector includes those working on small family farms.

The reader should note that the recent informal sector survey[1] comprised only enterprises which operated from fixed premises. The majority of the informal sector operates from within people's homes and were out of scope for the establishment based survey. The informal sector survey found 64,500 establishments in 'trading centres', which were principally in urban areas. This compares with the EICV2 which estimates approximately 115,000 establishments operating as a person's main job in urban areas. The large difference in the two estimates is likely to be due to the large number of enterprises operating from briefcases or from within peoples' dwellings, however as questions relating to business premises were not asked in the EICV2 it is very difficult to draw comparisons between the two studies.

Secondary jobs

Some 40% of all workers have a second job. Just under half of all independent and family farmers work as waged farm labourers as a second job at some point in the year, and these second jobs form the majority of all waged farm workers. Only 26% of all secondary paid farm jobs are undertaken the whole year round. For the majority, the waged farm work is for less than six months of the year, and most have taken these jobs quite recently. Waged farm work is therefore insecure, intermittent and may leave those who rely on it prone to shocks.

[1] 'Rwanda Informal Sector Survey' 2006; NISR (draft report).

Those who are subsistence farmers are more likely to have second jobs than non-farmers, and the two types of jobs they are likely to do in addition to working on their own farms are waged farm employment and independent non-farm work (either as independent business person or as an unpaid family worker).

Welfare status

The welfare status of the workforce is closely related to their employment status. The least well-off workers are the paid farm workers, with over one third of paid farm workers in the lowest consumption quintile. Family farmers are the next most disadvantaged, while the most prosperous are paid non-farm workers, over half of whom are in the highest quintile. There is also a gender difference: the better paid waged non-farm employment is predominantly held by male workers. Unpaid work on farms or otherwise is largely undertaken by women. However, the strongest message of all is that the waged farm worker is the poorest workers.

Some 3.1 million adults work on family subsistence farms as their main source of livelihoods; this is the main source of livelihoods and provides 60% of all household income, while farm wages provide another 8% of household income. While the proportion of household income from farms has fallen a little between the surveys, it remains the overwhelming source of employment for the country.

Subsistence farming

The size of the population working on family farms has remained static between the surveys, but agriculture has absorbed workers in waged employment. Growth in subsistence farming in Eastern Province has been offset by reductions in other provinces. Almost two thirds of the labour on family farms is provided by women; only 39% of family farm workers are male, the remaining 61% are females. However, decision making on farms may be largely in the hands of men, as two thirds of the men are the heads of the household managing the farm. Of the other males working on farms almost all are sons of the heads, with just 5% other household members. For women the picture is different: 21% are household heads and another 50% are spouses of the head.

Wage rates and income

For agricultural labourers, real wage rates (expressed in January 2001 prices) appear to have fallen in all regions by around 30%. Given that there has been an increase in food prices between the surveys, these trends in real wages suggest that nominal wage rates have not kept pace with inflation. Turning to the non-agricultural sector, the reductions in real wages were much smaller than for agricultural workers. The average days worked per year for these informal non-agricultural jobs is generally higher than for agricultural labour. For farm labourers, there appears to be a significant shift away from payments in kind towards payments in cash. For non-farm workers, the shift in payment is generally away from in-kind payments towards subsidies for accommodation and transportation, with the percentage paid in cash changing less significantly.

For households that are mainly agricultural self-cultivators, 85% of total household income is from self-cultivation. By contrast, predominantly agricultural labour households are found mainly in the bottom quintiles. All quintiles in this category earn roughly 2/3 of total income from agricultural labour, with the other third mainly coming from agricultural production.

Domestic time use

Although a low proportion of children are economically active, children contribute significant amounts of domestic labour to the household. Children under 10 worked an average of nine hours a week on domestic chores, with girls spending several more hours on their tasks than boys. In the 11–15 year-old age group, the total rises to almost 14 hours, with girls working five or six hours a week more than their male counterparts. This trend for females to do more domestic work than males accelerates over the older adult groups, with women over 21 years devoting around five times the amount of time to domestic duties compared with men. The pattern does not vary greatly between members of poor and non-poor households. Women carry out on average 20 additional hours of work in running their homes and families.

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Abbreviations

EICV	*Enquete Integrale sur les Conditions de Vie des Menages*
EA	Enumeration Area
ISIC	International Standard Industrial Classification
MINAGRI	Ministry of Agriculture, Livestock, and Forestry
MINECOFIN	Ministry of Finance and Economic Planning
NISR	National Institute of Statistics
OPM	Oxford Policy Management
ZD	*Zone de denombrement*

1 Introduction to the labour report

1.1 Background and comparability of data with EICV1

The EICV2 collected information on the labour market from all persons aged seven years and above, whereas the EICV2 collected information on all members of the household aged six years and above. In order to make comparisons over time, the reference group for the report is all persons resident in households aged seven years and above.

In addition to the different reference groups used, the method of data collection changed in the EICV2. In the EICV1 all persons above six years of age were asked for details of their main and any secondary job, whereas in EICV2 all persons aged seven years or more were asked to describe all the jobs they did in the previous 12 month reference period. In making the databases for the analysis the main and any secondary jobs were created synthetically using the criteria used by field workers to define main job in EICV1. A main job for the short reference period (seven days) and the long reference period (12 months) was identified using length of time spent working in the reference period, and in the event of tied time in jobs, a hierarchy of job status was used giving precedence to non-agricultural jobs. Using this to allocate main jobs comparisons can be made between the two surveys.

The main problem in comparing the data arises from the job status classification in respect of the independent farmer, who heads the family enterprise, and the unpaid family member who works on the farm. The EICV1 appears to have used a more flexible definition of independent farmer, and many more households appear to contain more than one farm 'head'. In comparison it is rare to find more than one independent farmer in EICV2. The data have not been treated to compensate for this definitional problem, and for this reason comparisons have been between the status of subsistence farmers between the two surveys.

The EICV2 data is very rich and it is felt by the authors that the methodology used is robust, and derives better data than EICV1. However, it is recommended that individuals be asked to identify their main job in subsequent surveys, although clear training should be given to enumerators and individuals should be guided on making their choice between jobs.

Details of the method used to identify main jobs appear in Annex A.

2 Economic activity

2.1 Activity rates

The economic activity rates for the population declined a little over the period between the surveys, with proportionately fewer children and slightly fewer adults economically active (Table 2.1). For all persons aged over seven years, 63% were economically active in 2000/01 compared with 62% in 2005/06. For adults aged 15 and over, 83% of the population was economically active in 2005/06, compared with 86% in 2000/01[2]. The change in economic activity rates is not a result of growing unemployment, but a result of people staying in education or training. Unemployment is defined as those who had not worked over the 12 month reference period, but who were seeking work and available to take a job. Unemployment is low in both surveys, but has risen fractionally over the years, with just 1.2% of the reference group describing themselves as not working and unemployed. Fewer than 87,000 people were unemployed in 2005/06, with almost half of them adults aged 21 to 30 years. The unemployed are concentrated in Kigali, tend to be female, and live in households belonging to the richest consumption quintiles. Members of poorer households inevitably find some means of making a living to ensure their survival, underemployment will be explored further in section 10.

The major change in economic activity patterns has been for younger people to be solely in full-time education rather than in work. These results correspond with the rises in enrolment rates noted elsewhere in the EICV2 series of reports[3].

Female activity rates are a little higher than those for males; women are also more likely to be unemployed in younger adulthood. Table 2.1 shows the changes between the surveys in the population defined as economically inactive[4]. The increase in the proportions of students among children aged 11 to 14 years (plus 13%), and 15 to 20 years (plus 16%), shows the higher incidence of older children remaining in school or other forms of education[5]. This rise in the number of students involves those who are totally economically inactive; those who do some work are classified as working and reported as economically active. Rates of economic inactivity for the whole population aged over seven years have increased overall and this is mainly accounted for by the increases in exclusively full-time education. Although many people work beyond 65 years, there has been little change in the proportion of economically active, with less than a quarter of all persons aged over 65 years having stopped work.

Over the short reference period of seven days, fewer people reported engaging in actual work, although they had not reported themselves as unemployed. They are treated as having a normal work attachment. These include mainly those who are off work because of leave, temporary illness, or because there is no work to do on their farm that week. Some 7.9% of the working population were not at work, while an additional 0.6% was reported as unemployed, indicating a small amount of seasonal unemployment.

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[2] These data apply to the long reference period of economic activity over the 12 month reference period prior to the survey.

[3] See Section 7 of the EICV Poverty Analysis for Rwanda's Economic Development and Poverty Reduction Strategy, Final Report.

[4] Economically active are those either working at least one hour a week for wages or other remuneration, or those available for and seeking work.

[5] Children who are both in school and who describe themselves as working have been classified as economically active.

Table 2.1 Usual economic activity rates by age group (%)

Age Group	EICV1					EICV2				
	Working	Unemp	Student	Inactive	All	Working	Unemp	Student	Inactive	All
7 to 10	2.4	0.1	72.1	25.4	100	1.3	0.1	82.9	15.8	100
11 to 14	16.2	0.3	72.0	11.5	100	9.7	0.3	85.0	4.9	100
15 to 20	67.7	1.5	24.4	6.4	100	55.1	1.3	40.3	3.4	100
21 to 30	90.0	2.5	4.2	3.3	100	88.8	2.5	6.1	2.6	100
31 to 40	95.4	0.9	0.1	3.5	100	95.8	1.5	0.4	2.4	100
41 to 50	95.4	0.8		3.8	100	95.7	0.9	0.0	3.4	100
51 to 65	93.1	0.4		6.5	100	92.5	1.0		6.5	100
Over 66 years	74.9	0.4		24.7	100	76.0	0.5		23.5	100
National	**61.9**	**1.0**	**27.6**	**9.4**	**100**	**60.8**	**1.2**	**32.0**	**6.0**	**100**

Source: EICV1 and EICV2 data: household population aged 7 years and above.

Table 2.2 Usual male economic activity rates by age group (%)

Age Group	Working		Unemployed		Student		Inactive		All	
	EICV1	EICV2	EICV1	EICV2	EICV1	EICV2	EICV1	EICV2	EICV1	EICV2
7 to 10	2.4	1.5	0.0	0.1	71.3	81.8	26.3	16.7	100	100
11 to 14	15.2	10.0	0.7	0.3	72.8	84.6	11.3	5.1	100	100
15 to 20	65.5	52.8	1.5	1.5	26.2	42.0	6.8	3.6	100	100
21 to 30	90.6	89.3	1.4	1.6	4.8	6.8	3.2	2.3	100	100
31 to 40	94.7	95.3	0.5	1.1	0.1	0.4	4.7	3.2	100	100
41 to 50	93.3	93.7	0.9	0.9		0.1	5.7	5.4	100	100
51 to 65	92.2	90.7	0.6	1.2			7.2	8.1	100	100
Over 66	75.3	76.0	0.8	1.2			23.9	22.8	100	100
National	**59.5**	**58.7**	**0.9**	**1.0**	**29.5**	**33.8**	**10.1**	**6.5**	**100**	**100**

Source: EICV1 and EICV2 data: household population aged 7 years and above.

Table 2.3 Usual female economic activity rates by age group (%)

Age Group	Working		Unemployed		Student		Inactive		All	
	EICV1	EICV2	EICV1	EICV2	EICV1	EICV2	EICV1	EICV2	EICV1	EICV2
7 to 10	2.4	1.0	0.1	0.0	72.8	83.9	24.7	15.0	100	100
11 to 14	17.0	9.4	0.0	0.4	71.3	85.5	11.6	4.7	100	100
15 to 20	69.6	57.1	1.4	1.0	22.8	38.6	6.2	3.2	100	100
21 to 30	89.4	88.4	3.4	3.2	3.7	5.5	3.4	2.9	100	100
31 to 40	96.0	96.2	1.3	1.8	0.1	0.4	2.6	1.7	100	100
41 to 50	96.9	97.3	0.7	0.8			2.3	1.8	100	100
51 to 65	93.8	93.9	0.2	0.9			6.0	5.2	100	100
Over 66 years	74.6	76.1	0.1				25.2	23.9	100	100
National	**63.9**	**62.7**	**1.2**	**1.3**	**26.1**	**30.4**	**8.8**	**5.6**	**100**	**100**

Source: EICV1 and EICV2 data: household population aged 7 years and above

Table 2.4 Usual economically active population (000s), and economic activity rate (%), by age

	EICV1			EICV2		
	Working	Unemployed	Total	Working	Unemployed	Total
Total number (000s)	3,863	65	3,928	4,484	87	4,570
7 to 10	22	0	22	13	1	14
11 to 14	158	3	161	93	3	96
15 to 20	907	20	927	787	18	806
21 to 30	967	27	994	1,409	39	1,448
31 to 40	692	7	699	817	13	830
41 to 50	574	5	579	687	6	693
51 to 65	393	2	395	472	5	477
66 and over	151	1	152	205	1	206
Economic activity rate (%)						
7 to 14	9.6%	0.2%	9.8%	5.3%	0.2%	5.5%
15+	**84.4%**	**1.4%**	**85.8%**	**81.6%**	**1.5%**	**83.1%**

Source: EICV1 and EICV2 data: household population aged 7 years and above.

Table 2.5 Economic activity in short and long reference periods[6] (%)

	12-month reference period				7-day reference period		
	Male	Female	All		Male	Female	All
Working	58.7	62.7	60.8	Employed	49.1	53.8	51.6
				Work attachment	8.4	7.5	7.9
Unemployed	1.0	1.3	1.2	Unemployed	1.7	2.0	1.8
Student	33.8	30.4	32.0	Student	33.8	30.4	32.0
Inactive - other	6.5	5.6	6.0	Inactive	6.6	6.0	6.2
				No information	0.5	0.3	0.4
All	**100**	**100**	**100**	**All**	**100**	**100**	**100**

Source: EICV2 household population aged 7 years and above.

Table 2.6 Economic activity rates by stratum – All 7 years and above (%)

	12-month reference period			7-day reference period			
	City of Kigali	Other urban	Rural	City of Kigali	Other urban	Rural	All
Working	54.2	57.3	61.8	47.8	48.7	52.3	51.6
Work attachment				3.1	5.9	8.6	7.9
Unemployed	6.6	3.0	0.5	9.4	4.5	0.8	1.8
Student	33.0	33.3	31.8	33.0	33.3	31.8	32.0
Inactive - other	6.2	6.4	5.9	6.4	7.4	6.1	6.2
No information	-	-	-	0.4	0.3	0.4	0.4
All	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: EICV2 data: household population aged 7 years and above.

2.2 Child labour

Child employment, defined as persons younger than 15 years who are working in an economic activity, either for reward or in a family farm or business, has fallen from 9.6% in EICV1 to 5.3% in EICV2. This involves around 106,000 children nationally, but if those under 21 years are included then just under 900,000 young persons worked during the year. Some 200,000 fewer young people under 21 years are now working than was the case in 2000/01 and school participation is now much higher, with 330,000 more children under 15 years in school than was the case during EICV1, and over half a million more under 21 year olds in education or training.

Three quarters of all children under 15 years who do work, are doing so in agriculture. This is the same for boys and girls. Of the rest, some 19% work in the service sector, with girls slightly more likely to do so than boys, and boys slightly more likely to be in commerce.

[6] Usual economic activity rates.

Table 2.7 Economic activity of child workers

Economic Activity	Male	Female	All
Agriculture, fishing, forestry	79.9	72.7	76.5
Mining & quarrying	0.6		0.3
Manufacturing	1.3	0.5	0.9
Trade	3.9	1.5	2.7
Transport & communications	0.4	0.6	0.5
Other services	13.3	24.3	18.5
Inadequately described	0.6	0.4	0.5
All 7-15 year old workers	**100**	**100**	**100**

Source: EICV2 data: household population aged 7 to 15 years.

Fewer than half the children worked the whole year, with only 44% working all 12 months. A quarter of children who worked in the year did no work at all in the week preceding the survey. The median time spent working in all jobs amongst children who worked in the previous week was 24 hours, however for the very small numbers working in other industries the hours worked were much longer. Much more time is spent by children in domestic duties, which fall particularly heavily on girls. This is described below in Table 11.1.

2.3 Regional economic activity changes

The provincial changes in working patterns are shown in **Erreur ! Source du renvoi introuvable.**. The lower economic activity rates in Kigali City, compared with the other provinces, reflect the higher incidence of students living there (see Table 2.8), the presence of wealthier households where not all members need to work, and higher unemployment rates. In the short reference period the unemployment rate for Kigali urban was 11.9%. However, comparing between the two surveys, it is only Kigali where the economic activity rates have increased between the surveys.

Table 2.8 Provincial usual economic activity rates (% of people aged 15 and over)

	EICV1 Economically active			EICV2 Economically active		
	Males	Females	All	Males	Females	All
City of Kigali	78.8	71.5	74.8	79.9	75.1	77.4
Southern Province	83.4	87.8	85.8	80.7	84.3	82.7
Western Province	85.3	90.6	88.3	80.8	86.2	83.7
Northern Province	86.8	90.2	88.7	81.3	86.5	84.1
Eastern Province	83.8	87.8	86.0	83.4	85.9	84.7
National	**84.1**	**87.2**	**85.8**	**81.3**	**84.6**	**83.1**

Source: EICV1 and EICV2 data: persons aged 15 years and above.

Table 2.9 Economic activity rates for adults by stratum (%)

	Kigali urban	Other urban	Rural	All
Working	68.1	75.5	83.6	81.6
Unemployed	8.4	3.9	0.6	1.5
Student	17.6	14.5	11.9	12.6
Inactive - other	5.9	6.0	3.9	4.3
All	**100**	**100**	**100**	**100**

Source: EICV2 data: persons aged 15 years and above.

The activity rates mask some significant provincial demographic changes in the population aged over 15 years since 2000/01. The adult population of Eastern Province has grown by 36% and the number of workers by a similar proportion. In Northern Province the population has grown by only 9%, and employment by 3%. Of the rural provinces only Eastern Province has been able to match so closely the total increase in persons with employment. There is evidence from the migration data that many people are moving to Eastern Province to take advantage of job opportunities and available farming land. Given that the largest decreases in poverty are found in Eastern Province, it is likely that the growing employment opportunities found there are closely linked to its success in reducing poverty. Eastern Province has the highest proportion of cultivators in the medium to large land category and a growing number of farmers which suggests that farm work opportunities are driving employment growth. In addition, Eastern Province has the lowest proportion of unemployed persons, either in the long or short reference periods (table not shown).

Table 2.10 Increase in persons aged 15 and over since EICV1, by province (%)

	Working persons			All persons		
	Males	**Females**	**All**	**Males**	**Females**	**All**
City of Kigali	26.9%	24.2%	25.6%	22.4%	12.7%	17.1%
Southern Province	21.5%	14.2%	17.3%	26.5%	19.6%	22.7%
Western Province	23.1%	17.3%	19.8%	30.1%	23.7%	26.5%
Northern Province	0.1%	4.8%	2.7%	8.1%	10.1%	9.2%
Eastern Province	43.4%	26.5%	33.7%	44.6%	30.2%	36.5%
National	**22.1%**	**16.3%**	**18.8%**	**26.6%**	**20.1%**	**23.0%**

Source: EICV1 and EICV2 data: persons aged 15 years and above.

Slightly puzzling in Table 2.10 above is the increase between the surveys in the male component of the population compared with the female part, although this may be partly due to the effects of the war, and possibly the return home of people resident in institutions during EICV1. The Population Census gives an institutional population of 164,744 in 2002; institutional populations are not captured in household surveys and any reduction in the institutional population (hospitals, prisons, military etc.) may account for this rise in males in the household population, and may also account for some of the missing adults noted in the EICV1 population. Only in Northern province, where net out-migration is high, do females account for a larger part of the population growth. Nationally there has been higher percentage increase in male workers compared with females, but this tends to mirror the adult population change estimated by the surveys. Only in Kigali City have females' jobs grown more quickly than the female population.

3 Changes in the labour market

3.1 Job Status trends

This section examines the job status of adult workers. The vast majority of economically active adults in Rwanda are subsistence farmers working on family farms. The survey classified those who reported themselves as independent farmers, and those household members working on their family farms without pay, as subsistence farmers. In the following text both types are referred to. The head of household responsible for the farm is normally classified as an *independent farmer*, as it is he or she who makes decisions about the farm, and to whom the income accrues. In a few cases several members of the household may control their own parcels of land, and these are identified as independent farmers. The family members working under the direction of the independent farmer are classified as *unpaid family workers;* they benefit from their work only at the household level as they consume its produce, but they do not earn their own income either in produce or monetary terms. Job status was defined differently in EICV1, where those who described themselves as employers or independent workers in farming were classified as independent farmers. However, this gives rise to a much higher incidence of two or more independent farmers in households. The two classifications are not strictly comparable. Where comparisons are made, independent farmers in EICV1 in the analysis have been restricted to one per household, the head.

In the EICV1 survey 85% of the working population was classified as subsistence farmers in their main job (either independent farm workers or unpaid family farm workers). By EICV2 the proportion had reduced to 71%, a reduction of some 14%. There are some distinct differences between provinces which will be discussed below.

For non-farm workers three work type classifications have been developed for the analysis: paid farm employees or waged non-farm workers; independent self-employed persons and owners of small businesses; and the unpaid non-farm worker who work for no pay or reward in family enterprise, but who benefit from their work as a member of the household owning the business.

Table 3.1 Main job of economically active people, by province (% of those aged 15 years and over)

	EICV2						EICV1
Job type	**City of Kigali**	**Southern**	**Western**	**Northern**	**Eastern**	**National**	**National**
Wage farm	4	8	9	10	7	8	4
Subsistence farmer[7]	24	75	74	75	79	71	85
Wage non farm	48	8	8	7	6	11	7
Independent non-farm	18	7	7	7	7	8	4
Unpaid non farm worker	6	2	1	1	1	2	1
All	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: EICV1 and EICV2 data: persons aged 15 years and above.

[7] Subsistence farmer includes independent and unpaid farmers.

The proportions of people working as paid employees have increased in both surveys, as have the numbers running small non-farm enterprises. This is particularly noteworthy in other urban areas, where non-farm activities had increased dramatically and the proportion working in subsistence farming as their main job has reduced by one third.

Table 3.2 Usual work status by stratum (%)

	Kigali urban		Other urban		Rural		National	
	EICV1	EICV2	EICV1	EICV2	EICV1	EICV2	EICV1	EICV2
Waged farm	1	2	3	8	4	9	4	8
Independent farmer	8	7	33	25	38	34	36	32
Unpaid farm workers	7	5	43	23	53	44	49	40
Wage non-farm	55	58	13	24	3	6	7	11
Independent non-farm	25	20	7	15	2	6	4	8
Unpaid non-farm	3	8	1	6	0	1	1	2
All	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: EICV1 and EICV2 data: adults aged over 15 years.

Table 3.2 above shows the proportions of adult workers in the two surveys by work status, with independent and unpaid farm workers separated. It shows a small reduction in the proportions of independent farmers and a larger reduction in unpaid family farm workers. The largest reduction proportionately in subsistence farmers is among those living in other urban areas, where in terms of absolute numbers there has been little change in the number of independent farmers, but the numbers of unpaid family farm workers has decreased by a quarter, suggesting an increase in non-farming opportunities available in urban areas. Waged non-farm work has more than doubled in actual numbers, as have the numbers of people working in small non-farm enterprises.

In rural areas the numbers of adults working on family farms has remained fairly static, although the proportions have changed due to the increase in the numbers of adults working. There has been a large increase in the numbers of waged farm workers, although proportionately only 9% of the adult rural workforce are doing this as their main job. Increases in non-farm activities over the five year period are also marked, with a doubling of those working in waged non-farm jobs and a quadrupling of those working in non-farm family enterprises. In proportionate terms the numbers are small, but given that the number of subsistence farmers has remained static, the increase in the rural workforce of some half a million has largely been absorbed by waged farm work and non-farm work. More will be said about the characteristics of these workers below.

3.2 Gender and changes in employment status

Because of the changes in the questions used in the survey, the gender dynamics of subsistence farming is difficult to determine, The move away from unpaid family subsistence farming is much more marked for males than for females, greater proportions of males have moved away from faming than is the case for females. Almost a quarter of the population lives in female-headed households, so it is important that they continue to see improvements in their living standards.

For women the largest numerical change in the workforce structure has been the increase in paid agricultural work (the poorest paid of all work), while for men the largest increase is in paid non-agricultural work. Although the increase in male waged farm jobs is the same number for both sexes, the biggest numerical change for men is in non-farm work. Of the increase in waged non-farm work, three quarters of the additional jobs have been captured by males, with only a quarter of the increase going to women. There has been growth in small business opportunities for both sexes, but again more men have taken up small businesses than women. Sixty percent of the additional jobs in small enterprises are male and 40% female.

Table 3.3 Changes between surveys in employment status by gender (%)

	Males		Females		National	
	EICV1	EICV2	EICV1	EICV2	EICV1	EICV2
Waged farm	5.1	10.2	2.6	6.6	3.7	8.2
Subsistence farmer	49.7	41.6	25.0	23.4	35.8	31.6
Unpaid farm worker	29.0	19.5	64.7	56.2	49.1	39.7
Wage non-farm	11.3	17.4	4.3	5.6	7.4	10.9
Independent non-farm	4.6	10.4	2.8	6.0	3.6	8.0
Unpaid non-farm	0.4	0.9	0.6	2.3	0.5	1.6
All	**100**	**100**	**100**	**100**	**100**	**100**

Source: EICV1 and EICV2 data: persons aged 15 years and above.

Small businesses provide one of the few opportunities for women to diversify away from agriculture. For some women, another potential non-farm opportunity appears to be in paid work in Kigali, but this is predominantly taken by rather young women, and the tenure of these posts appears to be short, with 30% of women holding paid non-farm jobs in post for under one year, compared with 19% of males.

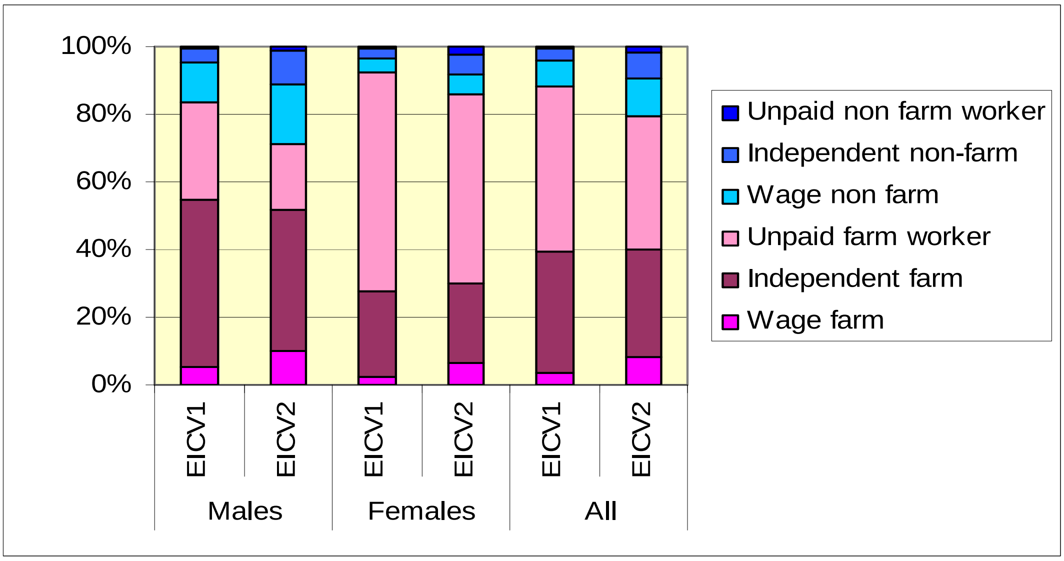
Table 3.4 Time in main job by males and female (%)

	Wage farm		Unpaid farm worker		Wage non farm		Independent non-farm		Unpaid non farm worker		All
	Male	Fem	Male	Fem	Male	Fem	Male	Fem	Male	Fem	
0 Less than 1 year	*11.2*	*3.9*	*4.0*	*2.2*	*19.2*	*30.2*	*9.6*	*10.6*	*22.1*	*11.4*	*7.5*
1 year	*9.7*	*7.6*	*8.3*	*4.5*	*15.4*	*17.8*	*15.1*	*16.9*	*21.5*	*13.2*	*8.9*
2 years	*11.1*	*10.3*	*14.5*	*6.9*	*12.5*	*13.2*	*12.8*	*12.6*	*17.4*	*10.0*	*10.1*
3 years	*8.7*	*9.4*	*11.9*	*6.0*	*8.3*	*9.6*	*10.4*	*12.5*	*7.5*	*5.7*	*8.1*
4 years	*5.8*	*7.1*	*8.9*	*6.5*	*5.2*	*5.7*	*7.6*	*5.8*	*4.3*	*6.6*	*6.7*
5 years	*7.6*	*7.3*	*10.4*	*6.3*	*5.8*	*4.7*	*9.0*	*9.8*	*6.8*	*6.7*	*7.2*
5 years and under	54.1	45.6	58.0	32.4	66.4	81.1	64.5	68.2	79.6	53.6	40.5
6 to 10 years	18.1	24.6	30.9	21.9	16.6	10.1	17.0	17.9	14.1	21.0	21.2
11 to 15 years	9.6	12.2	7.4	13.5	7.4	3.7	6.9	6.7	0.9	9.0	10.3
16 to 20 years	6.5	8.5	1.7	10.4	3.8	1.8	5.0	3.6	5.4	4.9	6.9
21 years or more	11.8	9.2	2.1	21.9	5.8	3.2	6.6	3.6		11.6	13.1
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: EICV2 data: working adults over 15 years not working in family farms.

Over 80% of women in waged non-farm jobs had been in their posts for five years or less, and similarly 80% of males working as unpaid in family non-farm enterprises started their work within the last five years. Two thirds of independent small enterprise workers had started their businesses in the previous five years. Data on the length of time subsistence farmers had done their jobs was not collected in the surveys.

Figure 3.1 Employment status of adults (%)

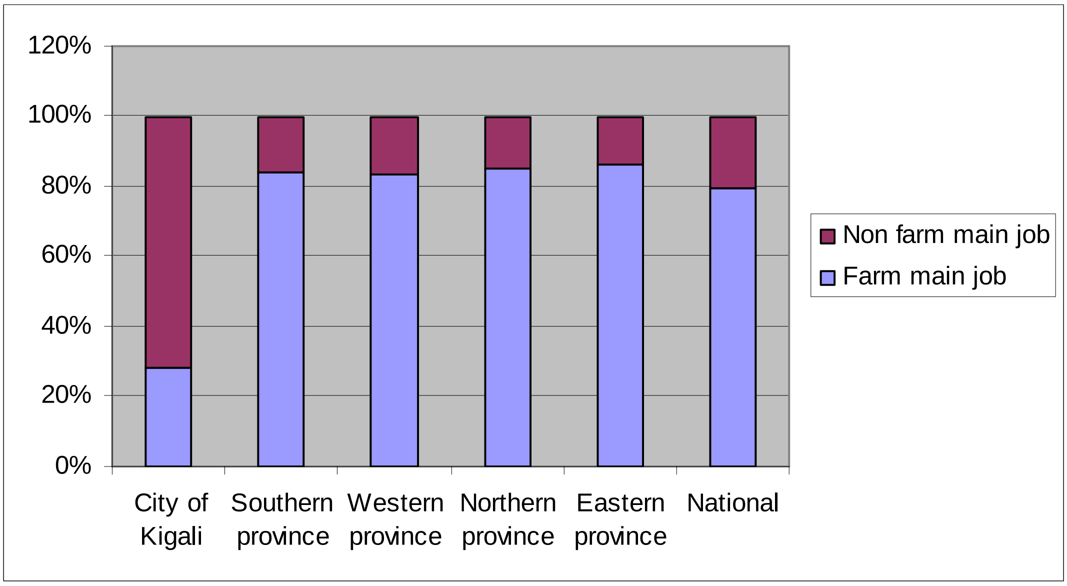


Source: EICV2 data.

3.3 Provincial changes

The provinces show rather different patterns of growth over the period between the surveys, especially between farm and non farm jobs. In particular Kigali, which has a different economic structure, has seen rapid employment growth proportionately (see Table 2.10) and an increase in the economic activity rates of its adult population (see Table 2.8). Eastern Province has experienced even faster employment growth. All the rural provinces have increased non-farm jobs by over 100%, however because non-agricultural work is such a small proportion of all jobs in the rural provinces, its influence on total job growth is small.

Figure 3.2 Proportions of farm and non farm main jobs (EICV2)



Source: EICV2 data.

Table 3.5 shows the net change in jobs for each province by working status, and the net change in agricultural and non-agricultural jobs. Of the rural provinces, Eastern Province has seen the highest job growth and Northern Province the lowest. Non-farm work has increased in all provinces, and Kigali has experienced a large numerical increase in non farm waged employment. It is also worth noting that non-farm employment has proportionately grown most in Eastern Province, the province where poverty reduction has been most effective.

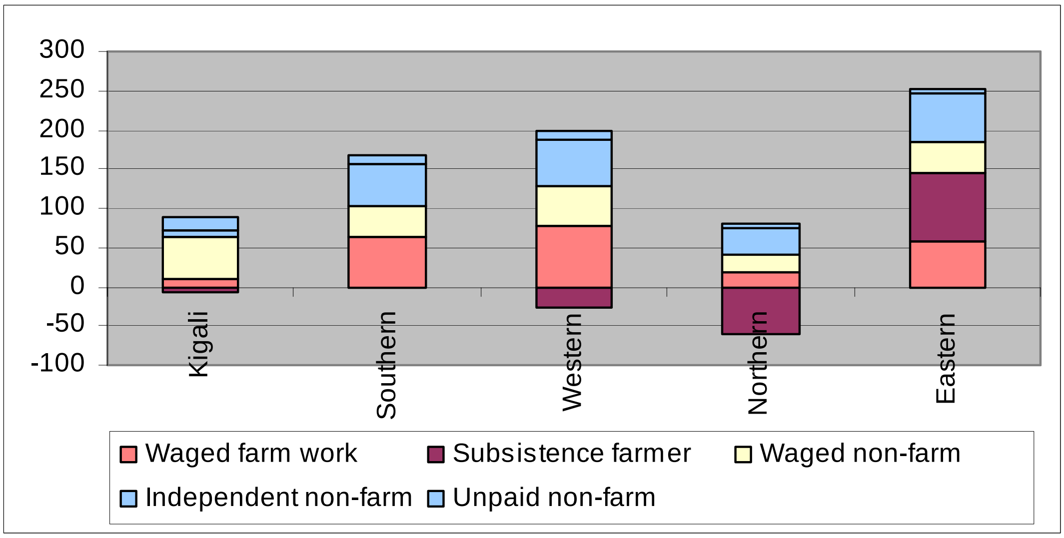
Table 3.5 Percentage increase in jobs (main) since EICV1, by province (%)

	Working persons			Working persons		
	Males	**Females**	**All**	**Farming**	**Non-farm**	**All**
City of Kigali	26.9%	24.2%	25.6%	0.4%	39.0%	25.5%
Southern Province	21.5%	14.2%	17.3%	7.2%	127.8%	17.3%
Western Province	23.1%	17.3%	19.8%	6.2%	249.4%	19.8%
Northern Province	0.1%	4.8%	2.7%	-5.8%	110.4%	2.7%
Eastern Province	43.4%	26.5%	33.7%	20.4%	331.1%	33.7%
National	**22.1%**	**16.3%**	**18.8%**	**6.7%**	**112.2%**	**18.8%**

Source: EICV1 and EICV2 data: main job of persons aged over 15 years.

Eastern has increased its employment numbers in all work categories, including subsistence farming; and it is the only province where there has been a growth in farmers (independent and unpaid). The number of farm workers in Southern Province has remained static, while Northern and Western provinces have experienced reductions in the number of farm workers. It is only in Eastern Province where subsistence farming has increased, in other provinces growth in farm work is limited to paid wage labouring (see Figure 3.3). An important change in three of the rural provinces is the substantial growth in waged agricultural labour as a main job. This will be discussed later in the section, but these workers are among the poorest in the country and tend to combine waged farm work with independent farm work.

Figure 3.3 Net change in main job by province



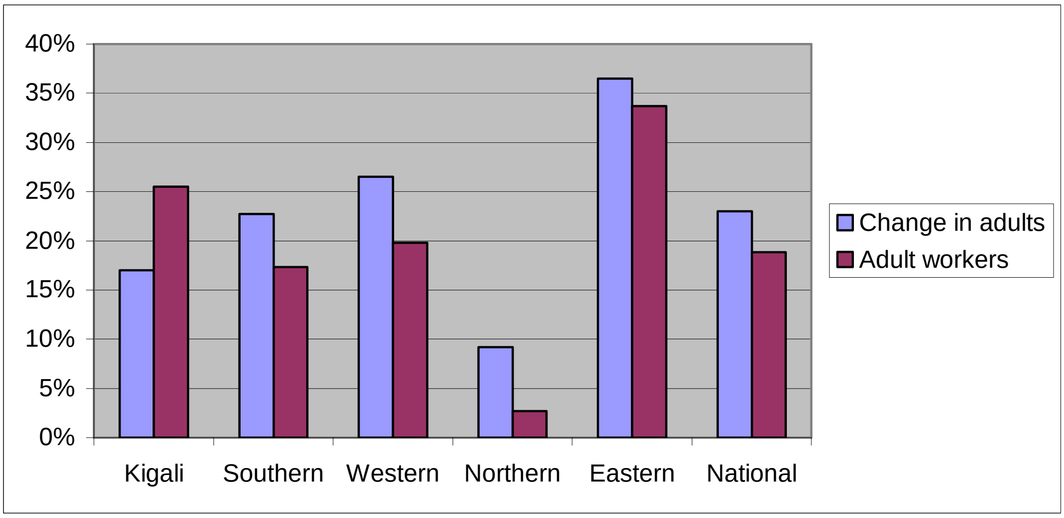
Source: EICV1 and EICV2 data.

3.4 Migration

5.4.1 Provincial job growth and migration

Migration appears to follow job creation (Figure 3.4). Eastern Province, which has shown the largest growth in jobs and in adults, has been quite effective in balancing employment and population growth. Kigali has absorbed more workers, and this can be seen in the higher economic activity rates demonstrated for Kigali in EICV2 compared with EICV1 (see Table 2.2). The other provinces have not matched population growth with job growth to the same extent; this is especially marked in Northern Province and may explain the high levels of out-migration from that province.

Figure 3.4 Population and job growth



Source: EICV1 and EICV2 data.

Around 550,000 adults said they had migrated to a different district in the past five years; around 50,000 of these migrated from another country and 500,000 are internal migrants. The number of child migrants is not known, but by including all the children in households where all adults or the head or spouse moved, the number of accompanying children can be estimated at around 350,000. This gives a very large number (almost one million) of migrating people, contrary to the assumptions in the population projections which assume negligible international or internal migration. The next sub-section section will consider the economic characteristics of migrants.

3.5 Characteristics of migrants

Migrants are characterised by being younger, having fewer dependants, and living in wealthier households than their more sedentary counterparts. Some 74% of adult migrants are aged 30 or under (Table 3.6). Half of adult migrants are heads and spouses, a quarter are relatives of the heads of the households they live in; and another quarter of migrants are unrelated to the head of the household (Table 3.7). These 100,000 non-relatives are concentrated in the City of Kigali (60%) and are largely working as maids and cleaners; note that while the households they live with may be wealthy, their individual circumstances may be less prosperous.

Table 3.6 Distribution of migrants by age group (%)

Province[1]	15 to 20	21 to 30	31 to 40	41 to 50	51 and over	Total
City of Kigali	37	47	11	2	3	100
Southern Province	18	49	25	4	3	100
Western Province	26	48	15	8	3	100
Northern Province	26	45	9	13	6	100
Eastern Province	29	37	14	12	9	100
All	**29**	**45**	**15**	**7**	**5**	**100**

Source: EICV2 data: internal migrant over 15 years. Note: (1) 'Province' refers to destination province of migrants.

Table 3.7 Adult migrants' relationship to head of household (%)

Province[1]	Spouse	Head	Relative of head	Not a relative	Total
City of Kigali	13	21	25	42	100
Southern Province	21	35	28	16	100
Western Province	16	39	32	13	100
Northern Province	22	40	26	13	100
Eastern Province	24	31	32	12	100
All	**19**	**31**	**28**	**22**	**100**

Source: EICV2 data: internal migrants over 15 years. Note: (1) 'Province' refers to destination province of migrants.

Eighty five percent of migrants are working, 9% are students and only 3% are unemployed (Table 3.8). The unemployed are more highly represented in migrants to the city of Kigali (6%), however two thirds of the unemployed migrants are living in the wealthiest households (Table 3.10).

Table 3.8 Economic status of migrants (%)

Economic activity status	Working	Unemployed	Student	Inactive - other	Total
City of Kigali	76.9	6.4	13.1	3.6	100
Southern Province	88.3	2.2	4.8	4.7	100
Western Province	84.1	3.3	11.3	1.3	100
Northern Province	86.7	3.1	5.5	4.7	100
Eastern Province	90.0	0.8	6.4	2.8	100
All	**84.7**	**3.3**	**8.7**	**3.4**	**100**

Source: EICV2 data: internal migrants over 15 years. Note: (1) 'Province' refers to destination province of migrants.

The least well off members of households are least likely to move; over 45% of migrants are found in the wealthiest households. Some are members of the family and others are working as live-in employees.

Table 3.9 Economic status of migrants by consumption quintile (%)

	Working	Unemployed	Student	Inactive - other	Working
1st Quintile	11.6	5.5	3.3	11.1	10.6
2nd Quintile	14.4	5.6	9.7	21.5	13.9
3rd Quintile	14.5	7.8	11.1	9.3	13.8
4th Quintile	16.6	14.4	16.2	14.6	16.4
5th Quintile	43.0	66.7	59.7	43.6	45.2
All	**100**	**100**	**100**	**100**	**100**

Source: EICV2 data: internal migrants over 15 years. Note: (1) 'Province' refers to destination province of migrants.

In provinces other than the City of Kigali the majority of migrants are independent farmers and their families. In Eastern Province in particular, 67% of migrants are farmers and their families, although the migrants tend to be young and most are aged less than 30 years. The farming migrants in Eastern Province are more likely to be engaged in growing fruit and vegetables, in addition to staple foods, than is the case nationally: 62% compared with 51%.

Table 3.10 Job status of working migrants aged 15 years or over

Province	Independent farmer	Unpaid farm worker	Independent non-farm	Wage earner		Unpaid non-farm	Total
				Agricultural labour	Non-agricultural		
City of Kigali	4	5	13	3	66	9	100
Southern	22	31	7	14	23	2	100
Western	28	27	8	15	21	2	100
Northern	27	39	8	11	14	1	100
Eastern	25	42	6	12	14	1	100
All	**19**	**28**	**9**	**10**	**31**	**3**	**100**

Source: EICV2 data: internal migrants over 15 years. Note: (1) 'Province' refers to destination province of migrants.

Looking in closer detail at the occupations of working internal migrants (Table 3.11), the largest group comprises farmers, of whom over 40% migrated to Eastern Province. The service sector, largely in Kigali, employs the next most significant group of migrants, involving 90,000 adults, of whom almost 63,000 are maids, cleaners of similar workers. The remaining important groups of service workers are the police, military, security workers, cooks and bar workers.

Seventeen thousand professional workers migrated over the five year period, with less than half destined for Kigali. Professional migrants include 3,500 medical staff and 4,300 teachers. Some 6,000 office clerks, officials and managers have also moved and the majority of these have come to Kigali.

Half of all workers in trade and commerce moved to Kigali, but Southern and Eastern provinces also attracted over 5,000 traders each. Some 31,000 commercial and sales workers have migrated in the last five years, and 22,000 of these are sales and street vendors. In the manufacturing and construction workers (who comprise the bulk of semi-skilled operatives) some 26,000 workers have migrated. The major destination for the construction workers was Kigali.

Table 3.11 Occupation of working migrants

Occupational group	City of Kigali	Southern Province	Western Province	Northern Province	Eastern Province	National
Professionals	6,500	3,200	2,000	700	4,200	17,000
Senior Officials and Managers	800	400	200	0	0	1,400
Office Clerks	3,600	500	160	300	200	4,700
Commercial and Sales	15,900	5,000	2,100	1,100	6,800	31,000
Service Sector	55,600	13,500	7,600	3,300	9,800	89,800
Agricultural & Fishery Workers	13,400	59,200	39,900	26,300	102,300	241,000
Semi-Skilled Operatives	12,900	4,200	3,700	1,700	3,900	26,300
Drivers and Machine Operators	2,700	900	300	200	200	4,300
Unskilled Labourers	1,900	600	1,000	400	1,600	5,500
Total	**113,300**	**87,500**	**57,000**	**34,000**	**129,000**	**420,800**

Source: EICV2 data: migrants in previous 5 years aged 15 years and above and working in the long reference period.

4 Industry and occupation of workforce

4.1 Industrial structure

The working population over 15 years of age is estimated to be 4.38 million people, of which just under two million are male and 2.4 million female; females are the majority of the workforce. In urban areas the distribution by gender is equal, but in rural areas 60% of the working adult population is female.

Table 4.1 Urban and rural distribution of those usually working by gender (%)

	Kigali urban	Other urban	Rural	Urban
	%	%	%	%
Male	53	45	44	45
Female	47	55	56	55
All	100	100	100	100
All Working (millions)	**0.30**	**0.38**	**3.70**	**4.38**

Source: EICV2 data: usual job of adults over 15 years..

The majority of the workers live in rural areas: 3.7 million workers live in rural areas, where 86% work in agriculture, forestry or fishing as their main jobs. In urban areas outside Kigali a majority are also employed in agriculture, with around 13% of the remaining workforce employed in trade and service industries. Kigali has around half of its workforce employed in the trade and service industries, a further 12% work in government and administration. Construction and transport industries are also large Kigali employers, and manufacturing comprises just 5% of the main employment of adults.

Table 4.2 Industrial activity of adult workers by urban and rural (%)

Industry	Kigali urban	Other urban	Rural	Urban
Agriculture, fishing, forestry	14.2	55.0	86.5	78.8
Mining & quarrying	0.4	0.1	0.5	0.4
Manufacturing	5.5	2.1	1.5	1.8
Utilities	0.4	0.3	0.0	0.1
Construction	7.2	3.2	0.9	1.5
Trade	23.1	12.9	4.9	6.8
Transport & communications	6.4	3.2	0.7	1.3
Financial services	2.3	0.9	0.1	0.3
Government	11.9	7.9	2.1	3.2
Recreation & tourism	0.3	0.6	0.1	0.2
Other services	27.1	12.7	2.0	4.6
Inadequately described	1.2	1.0	0.8	0.8
All	**100**	**100**	**100**	**100**

Source: EICV2 data: usual job of adults over 15 years.

The occupation that people do is categorised separately from the industry in which they work. A secretary can be employed in a manufacturing industry or in government. In some cases the occupational groups replicate the industrial categories, for examples farming occupations are most often found in the agricultural industry group, but those working in agriculture can include people in other occupations such as clerical, construction, packing, veterinary etc. The occupational classifications use the skill level required to do the job as its basis. The most aggregated level is presented in Table 4.3.

Eighty percent of adult workers are employed in agricultural occupations, rising to 87% in rural areas. In urban areas the service sector is the largest occupational group, these jobs include cooks, waiters, cleaners, security and personal care personnel. Office based occupations comprise approximately 12% of occupations in Kigali, and sales and commercial jobs 19%.

Semi-skilled operatives include construction workers and those working in manufacturing processing; 17% of workers in Kigali and 7% in other urban areas undertake these kinds of jobs.

Table 4.3 Occupational group by urban and rural

Occupational Group	Kigali urban	Other urban	Rural	Urban
Professionals	7.4	4.4	1.3	2.0
Senior Officials and Managers	0.9	0.1	0.0	0.1
Office Clerks	4.2	1.5	0.2	0.6
Commercial and Sales	19.1	11.7	4.1	5.8
Skilled Service Sector	31.3	16.6	2.5	5.7
Agricultural & Fishery Workers	14.7	55.9	87.2	79.5
Semi-Skilled Operatives	16.8	7.1	3.6	4.8
Drivers and Machine Operators	4.0	1.2	0.2	0.5
Unskilled Labourers	1.6	1.6	0.9	1.0
All	**100**	**100**	**100**	**100**

Source: EICV2 data: usual job of adults over 15 years.

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4.2 Education and agricultural work

Effect of education on farm and non-farm economic activity.

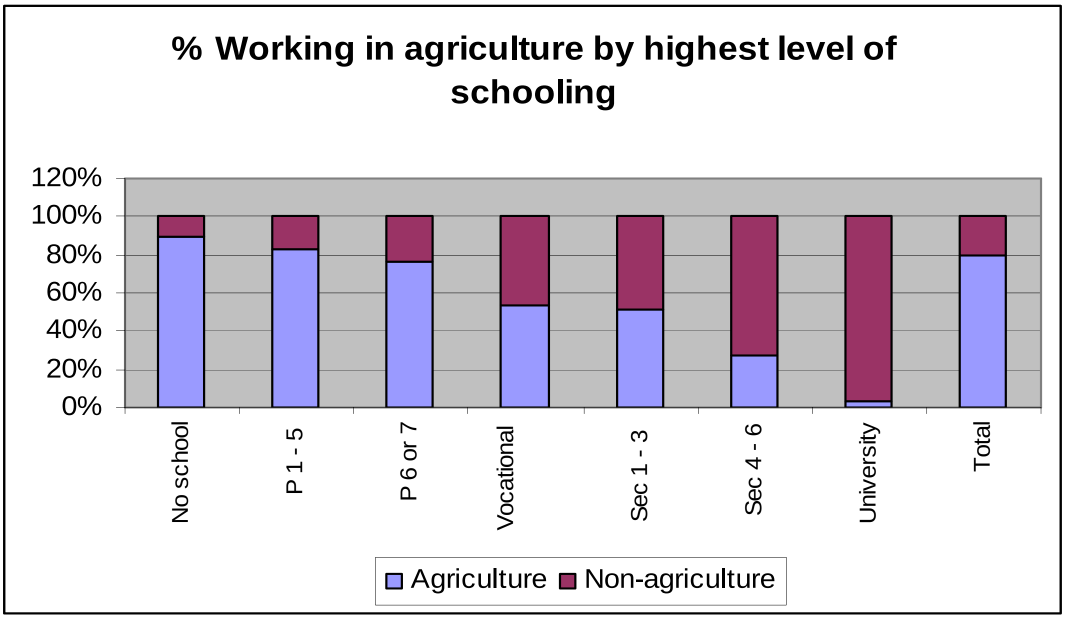
Agriculture is the major source of employment in the country, but the level of education has a marked impact on employment patterns. The level of education of an individual has considerable influence on whether he or she works in the agricultural sector or otherwise. The completion of primary education (6 or 7 years of primary education), is the point at which workers leave the agricultural sector to move into non-agricultural occupations. Overall almost 80% of all workers are in agriculture, but this rises to 90% for those with no schooling and falls to 3% for those with a university education. The turning point from moving from agriculture is the completion of primary school and the starting of secondary school or vocational training.

Table 4.4 Participation in agriculture and highest educational level (%)

Highest level attained	Agriculture	Non-agriculture	All
Never attended school	89.3	10.7	100.0
Primary 1 to 5	82.6	17.4	100.0
Primary 6 or 7	76.6	23.4	100.0
Vocational Training	53.6	46.4	100.0
Secondary 1 - 3	51.8	48.2	100.0
Secondary 4 - 6	27.0	73.0	100.0
University	3.3	96.7	100.0
All working	79.4	20.6	100.0

Source: EICV2 All working adults over 15 years

Figure 4.1 Participation in agriculture by educational attainment



4.3 Gender and economic activity

Occupation group	Kigali urban		Other Urban		Rural		All	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
Professionals	8.4	6.3	4.7	4.2	1.8	0.8	2.6	1.4
Senior Officials and Managers	1.2	0.5	0.0	0.2	0.0	0.0	0.1	0.0
Office Clerks	3.1	5.4	1.3	1.6	0.3	0.1	0.6	0.5
Commercial and Sales	16.1	22.6	10.0	13.0	5.0	3.4	6.4	5.4
Skilled Service Sector	26.9	36.3	17.6	15.7	4.3	1.0	7.3	4.3
Agricultural & Fishery Workers	9.0	21.2	47.8	62.6	79.9	93.0	71.4	86.2
Semi-Skilled Operatives	25.3	7.0	12.5	2.7	6.4	1.4	8.4	1.9
Drivers and Machine Operators	7.6		2.6		0.4		1.2	
Unskilled Labourers	2.3	0.8	3.4	0.1	1.8	0.2	2.0	0.2
All	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: EICV2 data: usual job of adults over 15 years.

Females are disproportionately represented in agricultural occupation in all strata, urban and rural. Some 86% of all women work in agricultural occupations. In Kigali the largest proportion of women work in the service sector and commercial occupations, with over one third working in service sector jobs. This compares with a quarter of men who work in Kigali service occupations and another quarter who are semi-skilled operatives.

4.4 Job changes since EICV1

Around 240,000 people start a new job each year (excluding those responsible for family farms)., In all, 1.45 million jobs have been taken by workers in the last five years. The majority of new job takers are young, with the median age at 22 years. Those starting work on family farms are youngest, and those starting a small enterprise are oldest, on average 28 years. New job holders in Kigali are older than their counterparts in other provinces.

The majority of new work opportunities are on farms: 45% on family farms and 12% working for wages on farms belonging to other households. Almost a quarter of jobs taken in the last five years are non-farm waged work, while 19% of jobs are in small enterprises.

Table 4.5 Jobs started in last 5 years by status and age (%)

	Wage farm	Unpaid farm worker	Wage non farm	Independent non-farm	Unpaid non farm worker	Total
15 to 20	42.8	64.4	27.8	12.0	32.8	44.0
21 to 30	34.8	31.7	50.4	47.6	40.9	39.2
31 to 40	11.6	2.6	13.1	22.8	19.8	9.8
41 to 50	5.8	0.7	5.3	11.2	3.4	4.1
51 to 65	3.9	0.5	2.7	5.2	1.6	2.2
Over 66 years	1.0	0.1	0.8	1.2	1.5	0.6
	100	100	100	100	100	100
Mean age	22	19	24	28	23	22
'000s jobs	181	660	337	230	43	1,452
% new jobs	12%	45%	23%	16%	3%	100%

Source: EICV2 data: all working aged 15 years and above, excluding independent farmers.

The highest proportion of the jobs started within the previous five years are in Southern Province. Kigali has the fewest new jobs starts, closely followed by Northern Province. Of all the waged non-farm jobs, Kigali has 40%.

Table 4.6 Jobs started in last 5 years by status and province (%)

	Wage farm	Unpaid farm worker	Wage non farm	Independent non-farm	Unpaid non farm worker	All
City of Kigali	4.7	2.7	40.2	20.8	34.1	15.5
Southern Province	26.1	29.5	18.4	21.9	23.0	25.1
Western Province	26.3	20.3	16.7	22.8	20.8	20.6
Northern Province	23.1	21.0	11.3	13.5	7.7	17.4
Eastern Province	19.8	26.5	13.5	21.0	14.3	21.4
All	**100**	**100**	**100**	**100**	**100**	**100**

Source: EICV2 data: all working aged 15 years and above, excluding independent farmers.

Newly started jobs were examined by the workers expenditure quintile, and compared with the quintiles for all job holders. The recently acquired jobs are held by people who are rather more prosperous than the national average. This slightly more affluent profile holds for all job types (Table 4.7).

Table 4.7 Expenditure quintile of those taking jobs in last 5 years compared with all jobs (excludes independent farmers).

Expenditure quintile	Wage farm	Unpaid farm worker	Wage non farm	Independent non-farm	Unpaid non farm worker	All 'new' jobs	All jobs
1st Quintile	32.0	20.9	6.6	8.5	11.3	16.7	18.4
2nd Quintile	20.7	21.0	9.7	12.8	6.6	16.6	19.1
3rd Quintile	13.8	22.3	10.3	16.0	11.0	17.1	19.0
4th Quintile	17.0	22.7	14.7	22.9	15.0	19.9	20.1
5th Quintile	16.5	13.1	58.8	39.8	56.1	29.6	23.4
All	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: EICV2 data: all working aged 15 years and above, excluding independent farmers.

The industry in which those taking jobs in the last five years work is of interest, however it differs little from the structure of jobs in the general economy; slightly fewer manufacturing jobs are observed and rather more in trade and the service sector.

Table 4.8 Industry group of newly taken jobs excluding agriculture (%)

Industry Group	Wage non farm	Independent non-farm	Unpaid non farm worker	Wage non farm
Agriculture, fishing, forestry	0.7	1.2	1.0	0.9
Mining & quarrying	2.6	1.4	0.5	2.0
Manufacturing	5.8	7.9	5.2	6.6
Utilities	0.6			0.3
Construction	11.6	0.3	0.8	6.5
Trade	9.4	68.6	52.3	34.7
Transport & communications	7.3	7.2	1.0	6.8
Financial services	2.5	0.2	0.6	1.5
Government	21.7	0.6	7.2	12.7
Recreation & tourism	0.2	1.0	1.1	0.6
Other services	33.7	8.9	27.3	23.9
Inadequately described	3.8	2.8	2.9	3.4
All	**100**	**100**	**100**	**100**

Source: EICV2 data: all working aged 15 years and above, excluding independent farmers.

4.5 Youth and economic activity

Young workers will become an increasing feature of the labour market. One million more people will become 15 years old in the course on the next five years, currently only 100,000 of them are economically active. Beyond the next five years the numbers will increase dramatically as the rising birth rates and falling death rates have an impact.

What kinds of jobs are young persons doing at present? The pattern for young men and young women is rather different: 58% of young men between 15 and 20 years work on the family farm, 73% of young women do so. Another quarter of young men take waged work, half in farming and half in other industries. For young women the proportion falls to 18% in waged employment, but over 10% is not in the agricultural industry. Older males start to work in small businesses, and women less so.

With the increase in subsistence farming jobs static in the previous five years, it is difficult to see where the new entrants to the labour market will take their places.

Table 4.9 Job status of workers by age group (%)

	Wage farm	Independent farm	Unpaid farm worker	Wage non farm	Independent non-farm	Unpaid non farm worker	Wage farm
Males							
15 to 20	14.2	7.4	58.0	14.2	4.4	1.8	100
21 to 30	9.8	32.0	23.0	21.8	12.5	0.9	100
31 to 40	9.4	51.7	3.2	20.8	14.0	0.9	100
41 to 50	9.5	61.1	1.6	16.0	11.5	0.3	100
51 to 65	8.5	70.5	1.5	11.1	8.1	0.4	100
Over 66 years	6.7	81.0	1.6	4.2	6.2	0.3	100
All Males	**10.2**	**41.6**	**19.5**	**17.4**	**10.4**	**0.9**	**100**
Females							
15 to 20	7.0	3.8	72.7	10.5	3.0	3.1	100
21 to 30	6.3	10.3	66.7	7.2	6.7	2.8	100
31 to 40	9.0	21.2	53.7	4.9	8.2	3.0	100
41 to 50	6.8	37.2	45.5	2.6	6.9	1.0	100
51 to 65	4.6	54.7	34.5	1.3	4.3	0.7	100
Over 66 years	1.4	69.9	23.5	0.7	3.5	1.0	100
All Females	**6.6**	**23.4**	**56.2**	**5.6**	**6.0**	**2.3**	**100**

Source: EICV2 data: all working persons aged 15 years and above.

5 Formal and informal sectors

5.1 Household based estimates

The formal sector is a relatively small component of the labour market. Types of work will be explored in relation to the formal and informal sectors. No single definition of the informal sector is current in the country, therefore several definitions will be used in this section. The data relating to paid work will first be explored, then related to enterprise data. It must be noted that this is a study of people working in the informal sector, derived from all sampled households, and weighted up to represent national estimates. It differs from the recent Informal Sector Survey conducted of establishments. In theory the EICV2 data should be more complete, in that all residents in households are in scope of the survey, whether or not they operated from fixed premises. Unfortunately there is little in common in the questionnaires used for the two surveys to enable us to identify those operating from fixed premises in the EICV.

5.2 Independent non-farm household businesses

In the course of the year 665,000 private non-agricultural businesses were identified in the EICV2, and of these 80% were run as sole proprietor operations with no employees. The remainder employed some 90,000 adults who were members of the same household as the proprietor, in addition an estimated 360,000 employees are reported in these enterprises. Although these employment estimates are subject to large sampling errors they are the same scale as the estimated number of informal sector employees and non-farm family workers derived from elsewhere in the questionnaire (450,000 compared with 490,000). These household businesses were the main occupation for around 350,000 adults throughout the entire year (the long reference period), but during the week before they were interviewed (the short reference period), a larger number of people (400,000) spent more time in their small business than in their usual job, indicating that some work is of a seasonal or intermittent nature. Therefore, during an average week in the 12 months of the survey, some 400,000 adults were working as a proprietor in a business, although this may not be their main activity throughout the year.

Around half of all proprietors worked in their enterprise for a full 12 months of the year, although this rises to over 60% for those whose main job it is.

Table 5.1 Numbers of household enterprises by urban and rural

	Principal Job	Secondary Job	All
	%	%	%
Kigali urban	17.0	3.9	10.8
Other urban	16.2	7.8	12.2
Rural	66.7	88.2	77.0
All	**100**	**100**	**100**
Total enterprises ‘000s	**348**	**318**	**666**

Source: EICV2 data: all independent non-farm activities of those aged 15 years and above.

On average proprietors worked 16 hours on three to four days a week in each of their businesses (Table 5.2). For those whose principal job it was, the hours worked rose to 29 hours per week, while for enterprises which are secondary jobs the median number of hours worked is only six per week. There was little discernable seasonal pattern in the number of hours worked, however there is a slight drop in the hours worked in the months of July and August. Although rather more business operate in the dry season, with the operations peaking activity in June (see Figure 5.1 and Figure 5.2).

Table 5.2 All non-farm enterprise proprietors, days and hours worked

	Principal Job		Secondary Job		All Jobs	
Number of days	**%**	**Median Hrs**	**%**	**Median Hrs**	**%**	**Median Hrs**
0	10.0	0	39.7	0	24.2	0
1	5.8	5	11.9	6	8.7	6
2	13.3	16	15.8	12	14.5	14
3	8.4	24	8.1	15	8.3	19
4	8.8	29	5.6	23	7.3	27
5	11.8	36	4.4	33	8.2	35
6	23.2	49	6.5	24	15.2	48
7	18.6	56	8.0	28	13.5	50
Total	**100**	**29**	**100**	**6**	**100**	**16**

Source: EICV2 data: all persons over 15 years working as an independent non-farm business person in their main or secondary job over the year.

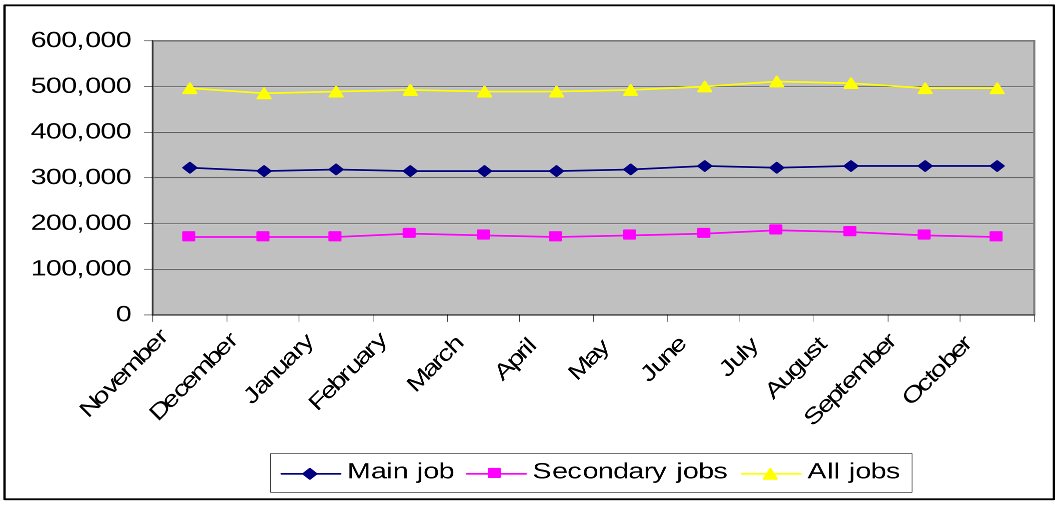
As many small business proprietors run more than one enterprise, we looked at persons whose enterprise is their main and only job. Here the hours worked rise to a mean of 48 per week, and over three-quarters worked on five days a week or more, suggesting that the phenomenon of working in multiple jobs is a strategy to deal with underemployment in the main job (Table 5.3).

Table 5.3 Independent non-farm business proprietors as main and only job, hours and days worked

Number of days in week worked	Median number of hours worked last week	%
0	0	7.8
1	6	3.3
2	12	3.8
3	18	5.5
4	32	4.2
5	45	14.9
6	60	35.8
7	70	24.7
All	**48**	**100.0**

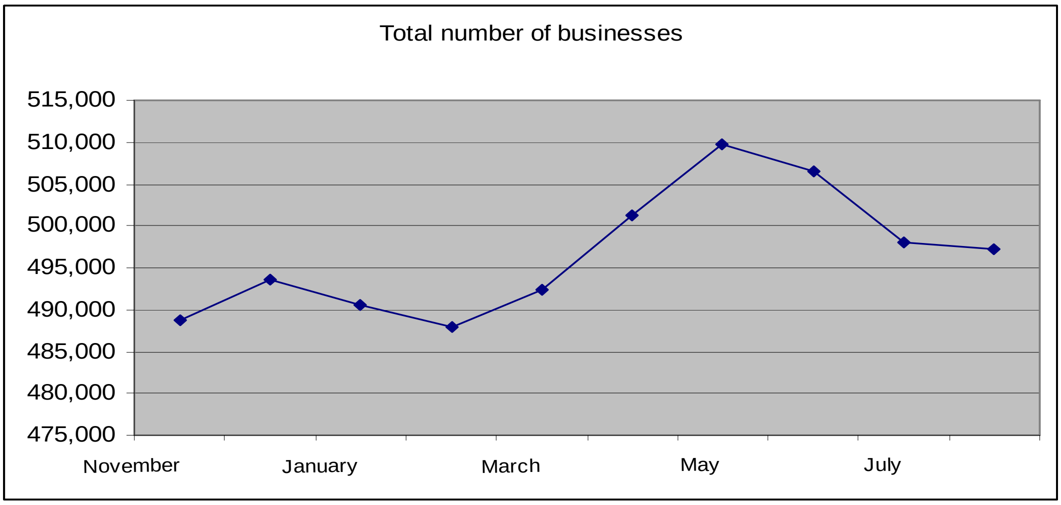
Source: EICV2 data: all persons over 15 years working as an independent non-farm business person in their main and only job over the year.

Figure 5.1 Number of non-farm business by main and secondary job, by month of year (2005/06)



Source: EICV2 data.

Figure 5.2 Number of non-farm businesses by month of year (2005/06)



Source: EICV2 data.

5.3 Household enterprise characteristics and environment

Table 5.4 shows the economic activity or industry of all the household based enterprises, two thirds are in the trade sector but only 11% are in manufacturing. A small number of enterprises are agricultural based industries, and are therefore coded under agriculture, however farms are excluded from the classification below.

Table 5.4 All household enterprises, industry by primary and secondary job

Economic activity	Principal Job	Secondary Job	All
11 Agriculture	0.3	0.4	0.4
12 Livestock	0.2	0.3	0.2
13 Forestry	0.1	0.6	0.3
14 Fishing & Hunting	0.2	-	0.1
21 Mining	0.5	0.4	0.4
22 Quarrying	1.0	2.7	1.8
31 Food Manufacture	1.2	2.3	1.7
32 Textile Manufacture	4.9	3.6	4.3
33 Wood Products Man.	4.2	3.3	3.7
34 Paper Products Man.	0.1	-	0.1
36 Non-metallic Products. Man.	0.1	0.1	0.1
37 Metal Manufacture	0.0	0.0	0.0
38 Metal Products Man.	1.1	0.2	0.7
41 Gas, Water & Electricity	-	0.1	0.1
51 Construction Buildings	0.5	0.9	0.7
52 Construction Roads	0.0	-	0.0
61 Wholesale Trade	17.0	20.0	18.5
62 Retail Trade	37.8	40.0	38.9
63 Other Trade	0.4	0.3	0.3
64 Hotel & restaurants	7.9	10.4	9.1
65 Import & Export	0.1	-	0.1
71 Transport	5.3	1.7	3.6
73 Communications	0.1	-	0.1
81 Banking	0.1	-	0.0
83 Real Estate	-	0.0	0.0
84 Business Services	0.1	0.2	0.1
91 Government, Admin & Social Services	0.9	0.4	0.7
92 Recreation & Tourism	1.4	2.1	1.7
93 Domestic Services	10.6	5.6	8.2
Inadequately Described	3.8	4.2	4.0
All non-farm businesses	**100**	**100**	**100**

Source: EICV2 data: all household enterprises run by adults over 15 years.

The regional distribution of household enterprises is explored below. Table 5.5 shows the industry of enterprises which are the main job of household business owners by province. Main enterprises were chosen because, as the preceding tables show, secondary business play a minor role accounting for only a few hours per week for their owners. The enterprise characteristics of these main businesses are similar to the total of all household enterprises, the major difference is a slightly lower proportion engaged in trade. Northern and Western provinces are characterised by a higher manufacturing base, and are also where the largest number of small enterprise owners are found.

Table 5.5 Small businesses – main job

	City of Kigali	Southern Province	Western Province	Northern Province	Eastern Province	National
	%	%	%	%	%	%
Agriculture, fishing, forestry	1	1	1	0	2	1
Mining & quarrying	2	1	1	2	2	1
Manufacturing	9	18	9	14	10	12
Construction	1	0	0	0	1	1
Trade	67	58	68	60	61	63
Transport & communications	7	4	4	6	7	5
Financial services	0	0	0	0	0	0
Government	0	1	0	1	2	1
Recreation & tourism	0	2	2	1	1	1
Other services	13	11	11	9	9	11
Inadequately described businesses	0	4	4	7	5	4
	100	**100**	**100**	**100**	**100**	**100**
Number of self-employed main jobs (000s)	70.8	77.2	75.7	53.8	70.6	348.0
All household non-farm enterprises (000s)	94.0	157.8	141.7	100.2	172.0	665.6

Source: EICV2 data: enterprises run as the main job.

Several definitions of informal sector have been tabulated in Table 5.6. The variables 'Revenue belongs to the household' and 'Enterprise does not have an accounting system', correspond with the definitions used in the informal sector survey. This estimate puts around 90% of household enterprises in the informal sector, or some 600,000, of which 308,000 are main jobs for their owners.

Table 5.6 Small enterprises as main jobs – informal sector indicators

Indicators of Informal sector	Main job enterprise	All household enterprises
Revenue belongs to the household	96	97
Not registered with a state authority	73	79
Enterprise does not have an accounting system	88	91
Fewer than 5 people employed in the last 12 months	98	99

Source: EICV2 data: all enterprises operated as main job.

Information about the obstacles to starting an enterprise was collected by the EICV1; the largest category of responses was that there were no difficulties, and this was particularly the case in Northern Province. For the rural provinces lack of capital was the major obstacle, while in Kigali the location posed a problem, perhaps because of the difficulties in finding premises? Access to markets was mentioned by 15% of proprietors as a problem.

Table 5.7 Major obstacle in creating the enterprise by province (%)

	City of Kigali	Southern Province	Western Province	Northern Province	Eastern Province	Total
No difficulty	30	30	29	50	41	35
Lack of capital	16	25	23	22	16	21
Access to credit	1	2	1	1	0	1
Administrative regulations	8	3	6	4	4	5
Location	14	6	9	2	6	8
Competent personnel	1	1	1	0	0	1
Access to markets	15	19	15	8	15	15
Other	16	14	17	11	17	15
All	**100**	**100**	**100**	**100**	**100**	**100**

Source: EICV2 data: those aged 15 years and above running small businesses in previous 12 months.

As access to credit was a problem for one in five enterprises, the problems of credit were explored briefly. Eighty-four percent had not sought credit from a formal lending institution, and of those who had, 4% were unsuccessful. Household savings (65%) and parents (10%) were the most frequent sources of credit and together accounted for three quarters of lending in the previous 12 months. This may explain why business proprietors are older (median 32 years) than their employee counterparts (27 years), as they would need to save in order to start a business.

Table 5.8 Primary source of credit in last 12 months by province (%)

Primary source of capital	City of Kigali	Southern Province	Western Province	Northern Province	Eastern Province	Total
Household savings	67	66	63	64	64	65
Loan from commercial bank	1		1		1	0
Loan from parents	11	10	13	11	8	10
Loan from popular bank	1	3	2	1	1	2
COOPEC	2	2	1	1	0	1
Other loans	4	2	3	3	3	3
Tontine (Community Resources)	1	2	3	4	2	2
Other	13	15	14	17	21	16
All	**100**	**100**	**100**	**100**	**100**	**100**

Source: EICV2 data: those aged 15 years and above running small businesses in previous 12 months.

5.4 Length of establishment of independent businesses

Those enterprises which are peoples' main job over the long reference period have been operating for longer periods than the secondary job enterprises. For the principal job only a quarter have operated for less than two years, while for secondary jobs, this rises to almost 40%.

Table 5.9 Years in business (%)

Time in business	Principal Job	Secondary Job	Principal Job
Less than 1 year	10	34	21
1 year	16	15	15
2 years	13	12	13
3 years	11	7	9
4 years	7	5	6
5 years	9	5	7
6 to 10 years	17	9	13
Over 11 years	17	14	15
All	**100**	**100**	**100**

Source: EICV2 data: those aged 15 years and above running small businesses in previous 12 months.

Table 5.10 Years in business by industry (median years)

Industry Group	Principal Job	Secondary Job	All
	Median years	Median years	Median years
Agriculture, fishing, forestry	-	-	-
Mining & quarrying	5	2	3
Manufacturing	6	4	5
Utilities	-	-	-
Construction	-	-	-
Trade	3	1	2
Transport & communications	2	1	2
Financial services	-	-	-
Administration	-	-	-
Recreation & tourism	6	6	6
Other services	5	3	5
Inadequately described	6	4	5
All	**4**	**2**	**3**

Source: EICV2 data: those aged 15 years and above running small businesses in previous 12 months – indicated sample size less than 30 enterprises.

Table 5.10 shows the median time in years that businesses have been operating. The largest group of enterprises are in trade; these and transport and communications businesses have operated for the least amount of time, on average two or three years for those whose business is their principal occupation, and a year only for those whose business is a secondary occupation. Those operating in the manufacturing and recreation industries are the most stable, with an average establishment period of six years if operated as a main job, or 4–6 years as a secondary job.

5.5 Paid employment

While most waged farm work is in the informal sector (91%), a much higher proportion (40%) of non-farm employees work in the formal sector. The majority of non-farm employees are engaged in the public sector, including parastatal companies. Only 17% of non-farm formal sector employees are in the private sector.

Table 5.11 shows data for the main jobs of adults, where just under three quarters of all waged employment is in the informal sector, however there is a large ‘other’ category, which may comprise those on public works schemes or in cooperatives. Scrutiny of the records shows those involved to be working a full week and for 12 months of the year, and to share characteristics with those clearly defined as informal sector workers. They have therefore been included with the informal sector.

Table 5.11 Paid employment in the formal and informal sectors

	Wage farm	Wage non farm	All
Formal Sector			
Public	1.2	17.1	10.3
Parastatal	2.4	4.8	3.8
Formal private	4.2	17.3	11.7
NGO (Non-governmental organization)	1.1	2.4	1.8
% Formal	8.9	41.5	27.5
Total formal '000s	*32*	*199*	*231*
Informal Sector			
Informal private	67.9	34.0	48.6
Other	23.2	24.5	23.9
% informal	*91.1*	*58.5*	*72.5*
Total informal '000s	*328*	*279*	*607*
Total Paid Employment '000s	**360**	**478**	**838**

Source: EICV2 data: Main usual jobs of adults over 15 years.

Table 5.12 Paid employees benefits from employers (%)

	Medical coverage		Retirement		Paid leave		
	Yes	No	Yes	No	Yes	No	All
Public	65.1	34.9	76.2	23.8	76.2	23.8	100
Parastatal	33.1	66.9	41.0	59.0	37.3	62.7	100
Formal private	22.0	78.0	37.5	62.5	41.5	58.5	100
NGO (Non-governmental organization)	26.0	74.0	34.5	65.5	36.2	63.8	100
Informal private	5.6	94.4	0.6	99.4	2.3	97.7	100
Other	8.5	91.5	0.8	99.2	6.7	93.3	100
All employees	**15.7**	**84.3**	**14.9**	**85.1**	**17.4**	**82.6**	**100**

Source: EICV2 data: main usual jobs of adults over 15 years working in salaried or waged employment.

Table 5.12 shows the levels of employment related benefits that household members said they obtained from their employers. The results show surprisingly low levels of benefits obtained from public sector employers; this maybe because employees (or the respondent) were unaware of the benefits available, or it may be that many public sector workers captured had casual rather than permanent work status. This is an aspect which should be explored in further studies and surveys. As expected, informal sector workers have very low levels of benefit coverage.

5.6 Characteristics of non-farm paid employment

There was a rapid growth in non-farm paid employment between the surveys, with an estimated additional 200,000 jobs since EICV1, out of a total 480,000 of all such jobs. Sixteen percent of job holders have been in their current jobs for less than a year and 62% for less than six years, indicating a high turnover in paid non-farm employment. There are regional and gender dimensions to this pattern, with Kigali job holders in their current jobs for a shorter time compared with the national picture. In particular, over one third of all female workers in Kigali have held their current jobs for less than a year, and a large proportion are under 21 years old, implying a fairly rapid turnover of young female workers in the capital. This high turnover is observed in the private sector in particular, but also in the 'other' category which might include public works schemes.

Table 5.13 Paid non-farm employees by time working in current job (%)

Time in job	Public	Parastatal	Formal private	Informal private	NGO	Other	All
Male employees	%	%	%	%	%	%	%
Less than 1 year	8	13	19	17	17	22	17
1 year	11	18	15	12	33	13	13
2 years	7	11	11	12	5	14	12
3 years	8	8	8	8	9	9	9
4 years	3	5	6	6	1	5	5
5 years	8	9	5	7	-	5	6
6 to 10 years	24	17	19	15	15	16	17
11 to 15 years	15	9	9	7	13	6	8
16 to 20 years	5	4	3	6	2	4	5
21 years or more	9	5	7	9	4	6	8
All Males	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Female employees	%	%	%	%	%	%	%
Less than 1 year	8	9	29	13	32	23	17
1 year	12	14	17	10	25	14	12
2 years	11	7	16	10	12	15	12
3 years	11	20	9	7	8	13	9
4 years	8	4	3	7	8	6	6
5 years	6	7	4	7	8	4	6
6 to 10 years	16	16	14	21	-	14	17
11 to 15 years	10	7	4	10	-	6	8
16 to 20 years	5	3	3	7	6	4	5
21 years or more	14	11	1	7	2	3	6
All Females	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: EICV2 data: all non-farm employees over 15 years of age.

Rural non-farm employees were most likely to be working in the service sector (20%), government (30%) or construction industries (15%). Some of these employees were very poorly paid, and these include maids and domestic staff (14%), but, however, 12% were teachers and 5% military.

Employees in Kigali were found overwhelmingly in the richest consumption quintile, as are the public sector employees in other urban areas, however outside the public sector employees are less well off. In rural areas, only the public service has at least 50% of its employees in the richest quintile, the informal sector and 'other' employees are particularly poorly remunerated, with around a third in the lowest quintile (Table 5.14).

Table 5.14 Consumption quintile by stratum and employment sector (%)

Consumption quintile	Public	Parastatal	Formal private	Informal private	NGO	Other	All
Kigali urban							
1st Quintile	0	0	1	2	0	3	2
2nd Quintile	2	5	1	3	0	3	2
3rd Quintile	3	3	5	6	0	6	5
4th Quintile	3	4	8	11	15	10	9
5th Quintile	92	88	85	79	85	79	82
	100	**100**	**100**	**100**	**100**	**100**	**100**
Other urban							
1st Quintile	1	0	6	12	20	9	8
2nd Quintile	4	4	6	16	4	15	11
3rd Quintile	3	0	6	13	22	9	9
4th Quintile	14	7	13	19	15	19	17
5th Quintile	78	88	69	40	39	48	55
	100	**100**	**100**	**100**	**100**	**100**	**100**
Rural							
1st Quintile	3	23	10	33	16	31	28
2nd Quintile	13	15	15	22	13	22	20
3rd Quintile	13	16	22	17	8	13	16
4th Quintile	20	22	24	15	27	18	17
5th Quintile	51	25	28	13	36	16	19
	100	**100**	**100**	**100**	**100**	**100**	**100**

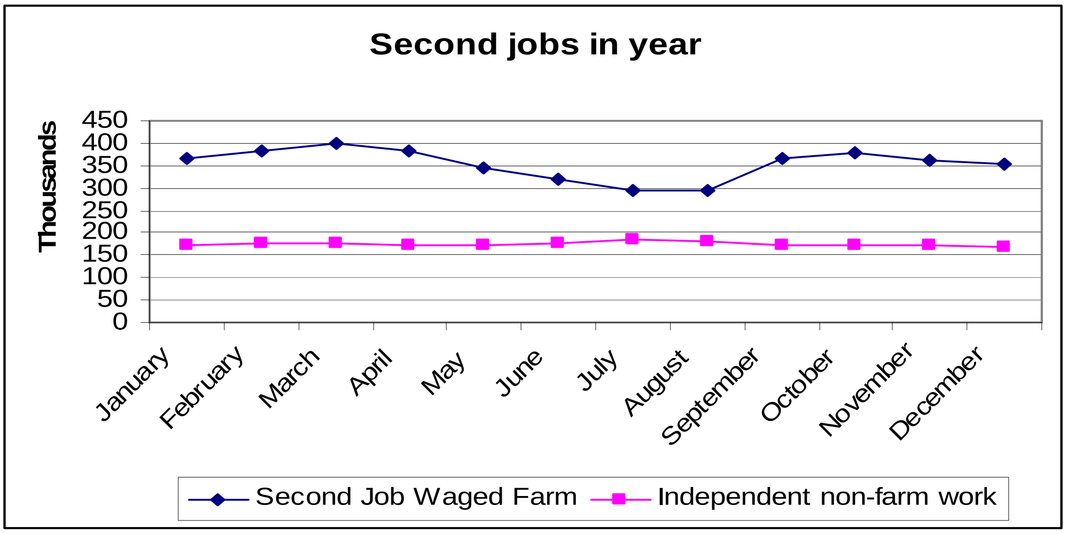
Source: EICV2 data: paid non-farm employees over 15 years of age.

5.7 Second jobs in the economy

Some 40% of all workers have a second job. Just under half of all independent and family farmers work as waged farm labourers as a second job at some point in the year, and these second jobs form the majority of all waged farm workers. Only 26% of all secondary paid farm jobs are undertaken the whole year round. For the majority, the waged farm work is for less than six months of the year, and most have taken these jobs quite recently. Waged farm work is therefore insecure, intermittent and may leave those who rely on it prone to shocks.

Those who are subsistence farmers are more likely to have second jobs than non-farmers, and the two types of jobs they are likely to do in addition to working on their own farms are waged farm employment and independent non-farm work (either as independent business person or as an unpaid family worker). The non-farming second jobs are less likely than secondary farm jobs to show a seasonal pattern, even though most of these businesses are carried out by those who are farmers in their main jobs. In rural areas 80% of these businesses are in trade, and 10% are in manufacturing industries (mainly textiles, wood products and drinks). More detail on second jobs is available in Table 5.15.

Figure 5.3 Second jobs in year



Source: EICV2 data.

Table 5.15 Main job status by secondary job status (%)

Usual job status	Wage farm	Independent Farmer	Unpaid farm worker	Wage non farm	Independent non farm	Unpaid non farm worker	Total
Secondary job status							
Wage farm	1	46	56	3	6	10	33
Independent farm	49	5	4	53	50	22	22
Unpaid farm worker	43	4	2	27	31	43	16
Independent non-farm	3	21	12	6	7	13	12
Unpaid non farm worker	4	23	26	10	6	12	17
All	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: EICV2 data: all adults 15 years and above.

6 Formal and informal sectors

By adding together the estimates of the formal sector employment in waged work, and in enterprises, it is estimated that around 270,000 persons over 15 years are employed in the formal sector, or 6% of all working adults. This proportion rises to 27% for non-farm employment. The remainder of those working are in the informal sector, which comprises over 4.1 million adults. The definition of the informal sector includes those working on small family farms.

The reader should note that the recent informal sector survey[8] comprised only enterprises which operated from fixed premises. The majority of the informal sector operates from within people's homes and were out of scope for the establishment based survey. The informal sector survey found 64,500 establishments in 'trading centres', which were principally in urban areas. This compares with the EICV2 which estimates approximately 115,000 establishments operating as a person's main job in urban areas. The large difference in the two estimates is likely to be due to the large number of enterprises operating from briefcases or from within peoples' dwellings, however as questions relating to business premises were not asked in the EICV2 it is very difficult to draw comparisons between the two studies. However there is substantial internal consistency within the EICV2 employment data regarding the numbers of employees reported by enterprises and the numbers of respondents found who had paid employment in the informal sector.

Table 6.1 Employment by formal and informal sector (estimated 000's)

	Non-farm		**Farm**		**All**	
Formal Sector	000's	%	000's	%	000's	%
Waged non-farm	199	22.2	-	-	199	4.5
Waged farm	-	-	32	0.9	32	0.7
Independent non-farm	40	4.5	-	-	40	0.9
Total formal '000s	**239**	**26.6**	**32**	**0.9**	**271**	**6.2**
Informal Sector						
Waged non-farm	279	31.1	-	-	279	6.4
Waged farm	-	-	328	9.4	328	7.5
Independent non-farm	308	34.3	-	-	308	7.0
Family non-farm	72	8.0	-	-	72	1.6
Subsistence farmers	-	-	3,119	89.7	3,119	71.3
Total informal '000s	**659**	**73.4**	**3,447**	**99.1**	**4,106**	**93.8**
Total employment '000s	**898**	**100**	**3,479**	**100**	**4,377**	**100**

Source: EICV2 data.

[8] 'Rwanda Informal Sector Survey' 2006; NISR (draft report).

7 Paid employment: characteristics of workforce

7.1 Waged farm employment

Detailed analysis has been made of this growing sector of the labour market. Some 360,000 workers are in waged farm work as their main job, and half of these said they started this job in the last five years. This estimate is reasonably close to the 220,000 estimated net increase in jobs of this kind since EICV1, although the time between the surveys is a little more than five years and respondents are unlikely to recall exactly when they started their jobs. Another 560,000 adults undertook wage farm work as a secondary job, and almost all of these are subsistence farmers in their main job.

Taking those whose main job is waged farm work there are three distinct groups; i) heads of households and their spouses who have usually worked in these jobs for long periods of time; ii) sons and daughters of farming heads; iii) other non-related members of households who have migrated in recent years.

The first type of paid farm worker is the head of household for who waged farm labour is his or her main source of income, but who also farm small parcels of their own land. The second type of workers are the sons and daughters and other relatives of independent farmers; these are predominantly young unmarried people. The third group are paid non-relatives, living as household members, who are generally found in wealthy households and who appear to be live-in paid labour. Some 60% of the recent waged farm job takers (started as a main job within the last five years) were men, whereas those who have been in their waged farm jobs for six years or more are equally divided between the two sexes.

Eighty-three percent of long-term waged workers are either the head of household or the spouse of a head, and therefore fit in category i) described above. Taking these waged heads as a group, they are the poorest group of workers in the survey. Almost half of the female long-term farm wage workers were in the poorest quintile and 70% are found in the poorest two. Female long-term waged farm workers tend to be heads of household and widows, their male counterparts are slightly better off, but still desperately poor (see Table 7.1).

Table 7.1 Waged farm workers by quintile (%)

Relation to household head	1st Quintile	2nd Quintile	3rd Quintile	4th Quintile	5th Quintile	Total
Head or spouse	41	23	18	12	7	100
Relative of head	37	26	18	14	5	100
Not a relative	6	4	5	25	60	100
All	**36**	**22**	**17**	**14**	**11**	**100**

Source EICV2 data: waged farm workers in main job aged over 15 years.

The other major group of waged workers are the sons and daughters of independent farmers (category ii). They comprise 30% of paid farm labourers[9]. They are young, 96% are under the age of 25 years, and almost all are unmarried. Although the households they live in are a little better off than those of waged agricultural heads, they are still concentrated in the poorest quintiles. It is likely that this group belong to households whose family land holdings are too small to offer them a

[9] The main job is referred to here and in this section.

livelihood, and they therefore look to other households for paid work. As the demographics of the Rwandese population changes over the next 10 years, these young persons, originating in households living on small holdings and who cannot afford to marry, will become an increasing phenomenon. Recalling that these persons are living in the poorest households, they are potentially an increasing component of the poor. Ten percent of all workers less than 25 years of age are paid agricultural workers, and between 80% and 90% of them have no qualifications at all. Of all the 15 to 24 year olds in the EICV2, those taking paid farm work have the lowest levels of qualification. A picture emerges of the least well qualified young persons taking the lowest paid wage farm work; while their better qualified age counterparts move into non farm self employment or waged non-farm work.

Paid farm workers are clearly struggling to make a living; 80% of paid farm workers have a second job, much higher than for all other workers. These second jobs are almost exclusively working on the family farm. Table 7.2 below examines the household income sources of waged farm workers. For the heads of household working for farm wages, these waged jobs are their main source of income, and women heads rely more heavily on their wages than do men. For the sons and daughters of farming households, wages are a very important component, but the family farm provides the larger part of the household income.

Table 7.2 Household income sources for waged farm workers

Type of income	Head of household	Relative of head (non spouse)
Males	Median	Median
net income from crops	54,000	111,000
household income from wages	62,500	67,000
total household income[1]	137,000	213,000
Female		
net income from crops	36,000	97,000
household income from wages	57,000	75,000
total household income[1]	119,000	198,000
All		
net income from crops	50,000	103,500
household income from wages	62,500	75,000
total household income[1]	131, 000	204,000

Source: Authors' calculation from EICV2 data. Note: (1) The total family income is not the exact sum of the net income from crops and the household income from wages as these figures are medians. The total figures also include some other income, such as non-labour income.

8 Recent labour trends and links to welfare

8.1 New non-farm job creation

It is difficult to identify new jobs from household survey data, as the dynamics of job changes and new jobs cannot be captured in a single survey, or between two independent surveys. The study has so far looked at net job changes in the country, however it is also possible to examine the jobs that people have taken in the last five years. Some are new jobs, others are jobs which have changed personnel, other jobs present at the time of EICV1 will have ceased to exist. The survey asks the length of time people have held their current jobs, and it is this that will be used as a proxy for new job creation. Not only is it not possible to study new job births and deaths of old jobs, but the results below rely on respondents' memories of the length of time they have spent in their current jobs, which is of course subject to recall error. There will also have been job turnover during the five year period. The results presented in Table 8.2 below reflect the non-farm jobs held by the population in 2005/06 which have been secured in the last five years.

Some 850,000 current jobs of a non-farm nature have been started by household members over the five year period, and of these some 250,000 are second jobs. Not all of these will be new jobs, and for employees in particular much of this will be job turnover, with new job holders being appointed to existing posts. It should be recalled that net change in the number of all working persons (farm and non-farm) is estimated to be around 600,000, including agricultural jobs. The figure of 850,000 can be taken therefore as being a very imperfect surrogate for new jobs, but will give a picture of recent labour market conditions.

Of the 850,000 recently acquired non-farm jobs, a little under half (350,000) of these are in the sales sector, where the majority are informal sector self-employed persons, either as their primary or secondary jobs. The service sector is the second most important area of job creation, and the majority of those working in the service sector are in waged employment, with an estimated 92,000 taking a job in the last five years as maids and cleaners. Almost half of all 'new' waged jobs are in the service sector.

Table 8.1 Occupation group of non-farm jobs taken in last 5 years

	Non-farm jobs taken in the last 5 years				
	Self-employment		Employment		
	Main Job	Second	Wage	Unpaid	All
Professionals	3,900	4,700	43,100	1,400	53,100
Senior Officials and Managers	0	0	2,200	0	2,200
Office Clerks	200	0	17,300	500	18,000
Commercial and Sales	151,100	182,800	15,500	19,500	368,900
Service Sector	16,700	8,400	152,800	15,100	193,000
Semi-Skilled Operatives	41,000	41,200	76,200		158,400
Drivers and Machine Operators	4,600	0	8,900	4,900	18,400
Unskilled Labourers	11,200	6,600	21,300	1,800	40,900
Inadequately described					1,400
All	**229,500**	**244,300**	**337,300**	**43,200**	**854,300**

Source: EICV2 data: adults over 15 years reporting taking non-farm jobs in last 5 years.

Table 8.2 Provincial distribution of non-farm jobs taken in last 5 years

Region	Non-farm jobs taken in the last 5 years				
	Independent Main Job	Independent Second	Wage	Unpaid	All
City of Kigali	47,800	17,900	135,600	14,800	216,100
Southern	50,200	64,900	62,000	9,900	187,000
Western	52,400	47,400	56,200	9,000	165,000
Northern	30,900	36,100	38,000	3,300	108,300
Eastern	48,200	78,000	45,500	6,200	177,900
National	**229,500**	**244,300**	**337,300**	**43,200**	**854,300**

Source: EICV2 data: all adults over 15 years reporting taking job in previous 5 years EICV2 data.

The regional pattern of these 'new jobs' is interesting; in Kigali waged jobs predominate while in the rural provinces independent businesses are the most numerous. While Kigali has the highest number of new job entrants, it is followed closely by Southern Province. The new job entrants in Southern Province are mainly working in independent enterprises and a large number of these enterprises are secondary jobs. There are also 62,000 new waged job takers. The majority of 'new jobs' are found in the independent sector, where 230,000 main businesses and another 240,000 secondary enterprises have been created. The vast majority of these are in trade. Waged jobs are found in the service sector, where the majority are in cleaning and catering.

Table 8.3 Occupation group of jobs taken in last 5 years

	Non-farm jobs taken in the last 5 years				
	Self-employment		Employment		
	Main Job	Second	Wage	Unpaid	All
Professionals	3,900	4,700	43,100	1,400	53,100
Senior Officials and Managers	0	0	2,200	0	2,200
Office Clerks	200	0	17,300	500	18,000
Commercial and Sales	151,100	182,800	15,500	19,500	368,900
Service Sector	16,700	8,400	152,800	15,100	193,000
Semi-Skilled Operatives	41,000	41,200	76,200		158,400
Drivers and Machine Operators	4,600	0	8,900	4,900	18,400
Unskilled Labourers	11,200	6,600	21,300	1,800	40,900
Inadequately described					1,400
All	**229,500**	**244,300**	**337,300**	**43,200**	**854,300**

Source: EICV2 data: adults over 15 years reporting taking non-farm jobs in last 5 years.

8.2 Employment status and welfare status

The welfare status of the workforce is closely related to their employment status. The least well-off workers are the paid farm workers, with over one third of paid farm workers in the lowest consumption quintile[10]. Family farmers are the next most deprived, while the most prosperous are

[10] The EICV sample members were allocated to a consumption category, based on the total value of all the goods and services they consumed, including food from their own farms. There are five equal sized quintiles,

paid non-farm workers, over half of whom are in the highest quintile; however, informal sector employees in the rural areas are concentrated in the lowest consumption quintiles (see section 5.5). There is a clear dichotomy between farm and non-farm work. There is also a gender difference: the better paid waged non-farm employment is predominantly held by male workers. Unpaid work on farms or otherwise is largely undertaken by women. However, the strongest message of all is that the waged farm worker is the poorest workers.

Table 8.4 Poverty status and gender of workers

Usual work status	Gender		Poverty status	
	Male	Female	Not poor	Poor
Independent farm	59.2	40.8	42.1	57.9
Unpaid farm worker	22.1	77.9	38.3	61.7
Wage farm	55.9	44.1	27.6	72.4
Independent non-farm	58.8	41.2	64.0	36.0
Wage non farm	71.6	28.4	74.5	25.5
Unpaid non farm worker	24.5	75.5	69.4	30.6
Total	**44.9**	**55.1**	**45.1**	**54.9**

Source: EICV1 and EICV2 data: main job of those 15 years and over and working in the long reference period.

Turning to the income status of heads of household, rather than individual workers, very similar patterns emerge. Almost 40% of heads of household working as paid farm workers in their main jobs are found in the poorest quintile, while 50% of waged non-farm heads are found in the richest quintile. Independent farmer heads are clustered in the middle quintiles, while non-farm independent enterprise heads tend towards the upper quintile groups.

Table 8.5 Work status of heads of household by consumption quintile

Usual work status	1st Quintile	2nd Quintile	3rd Quintile	4th Quintile	5th Quintile	1st Quintile
Wage farm	39	22	18	13	7	100
Independent farm	18	21	23	23	15	100
Unpaid farm worker	32	15	19	18	16	100
Wage non farm	7	12	11	20	50	100
Independent non-farm	8	12	15	25	39	100
Unpaid non farm worker	15	15	11	24	35	100
All heads of household	**18**	**19**	**20**	**22**	**21**	**100**

Source: EICV1 and EICV2 data: main job of household heads working in the long reference period.

each accounting for 20% of the population. Quintile 1 consumed the least whereas Quintile 5 consumed the most. Only some members of quintile 3 and all those in higher quintiles were estimated to be consuming sufficient calories to meet their daily needs. Those in quintile 1 and 2 and some in 3 are consuming too little to meet their calorific requirements.

Table 8.6 Time spent in current waged employment by quintile group

Consumption quintile	Time in waged employment						Total
	Under a year	1 year	2 to 5 years	6 to 10 years	11 to 20 years	over 21 years	
	Col %	Col %	Col %	Col %	Col %	Col %	Col %
Worker not in agriculture							
1st Quintile	4.2	7.2	7.9	9.0	5.8	6.5	6.9
2nd Quintile	11.1	10.6	8.4	10.0	11.9	12.8	10.1
3rd Quintile	10.5	12.7	8.9	9.1	7.9	7.4	9.7
4th Quintile	12.8	15.0	15.7	16.8	23.3	22.8	16.2
5th Quintile	61.3	54.4	59.1	55.1	51.1	50.4	57.1
Worker in agriculture							
1st Quintile	29.2	24.7	34.6	35.1	46.7	41.1	36.3
2nd Quintile	10.0	24.8	22.2	26.9	20.5	23.9	22.3
3rd Quintile	10.7	13.3	14.7	21.3	17.9	19.0	16.7
4th Quintile	22.1	14.6	16.4	13.6	6.7	10.8	13.8
5th Quintile	27.9	22.7	12.1	3.1	8.2	5.2	11.0

Source: EICV2 data: waged employees in main job 15 years and over.

8.3 Poverty and employment trends

The authors took recent job entrants as a group to compare their work and poverty status with that of the general workforce. This was in order to take a view on the recent trends in employment creation and the likely poverty outcomes. It is worth noting that people who have held their current job for shorter lengths of time are more likely to be in the higher quintiles than those who have held their current job for a longer period (see Table 8.6 above).

The net change in jobs has been used to consider the possible poverty status of the 'new jobs' created. As has been noted, many working in agriculture are found in the poorest households, while those working in the financial services sector are the most wealthy; however the largest net increases in jobs were found in the trade and agricultural sectors. Almost 80% of all workers are in agricultural occupations, but over 60% of them are poor[11] (see Table 8.7). Other manual occupations are less poor, with 45% poor among semi-skilled operatives and 49% of unskilled labours poor. However, those working as drivers, considered a manual occupation, are amongst the better off occupational groups. Only one quarter of skilled service workers, and just 30% of commercial workers are poor. The most prosperous workers are professionals, senior managers and office workers (see Table 8.8).

Using the poverty status of job types, and relating this to the net job change between the surveys, it is estimated that the numbers of poor are likely to change little in future years, unless the propensity to be poor in the various industries and occupations changes, or the types of jobs created differ markedly from last five years. The likely driver in increasing poverty levels will be the increase in paid farm work accompanied by static or declining productivity levels on family farms. It

[11] Note that occupation does not necessarily correspond with industrial activity. An example might be a secretary working in a drinks factory, her occupation is clerical, but her industry manufacturing.

is also worth noting that other EICV2 reports showed falling levels of income in households sustained mainly by small enterprises and non-farm employment, which may reflect increased competition for work in these better remunerated occupations.

Table 8.7 Poverty status by industrial activity category

Activity Group	Share of workers aged 15+	Share of new jobs since 2000/1	Poverty status		
			Poor	Not poor	Total
Agriculture, fishing, forestry	79	27	61	39	100
Mining & quarrying	0	2	56	44	100
Manufacturing	2	7	45	55	100
Utilities	-	-	-	-	-
Construction	2	7	45	55	100
Trade	7	28	32	68	100
Transport & communications	1	5	25	75	100
Financial services	0	0	6	94	100
Government	3	8	17	83	100
Recreation & tourism	0	1	48	52	100
Other Services	5	13	26	74	100
Inadequately described	1	3	58	42	100
All working adults	**100**	**100**	**55**	**45**	**100**

Source: EICV1 and EICV2 data: those aged 15 years and over working in long reference period.

Table 8.8 Poverty status by occupation

Occupation	% Jobs				
	2005–06	Change since 2000/1	Poor	Not poor	Total
Professionals	2.0	2.5	12	88	100
Senior Officials and Managers	0.1	0.3	9	91	100
Office Clerks	0.6	0.1	5	95	100
Commercial and Sales	5.8	22.6	30	70	100
Skilled Service Sector	5.7	19.3	25	75	100
Agricultural & Fishery Workers	79.5	31.8	61	39	100
Semi-Skilled Operatives	4.8	17.6	45	55	100
Drivers and Machine Operators	0.5	1.2	6	94	100
Unskilled Labourers	1.0	4.7	49	51	100
All working adults	**100.0**	**100.0**	**55**	**45**	**100**

Source: EICV1 and EICV2 data: those aged 15 years and over working in long reference period.

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9 Agricultural sector

9.1 Family farming – the subsistence sector

Some 3.1 million adults work on family subsistence farms as their main source of livelihoods; this is the main source of livelihoods and provides 60% of all household income, while farm wages provide another 8% of household income. While the proportion of household income from farms has fallen a little between the surveys, it remains the overwhelming source of employment for the country. The size of the population working on family farms has remained static between the surveys, but agriculture has absorbed workers in waged employment. The only region where the numbers of family farmers has risen is Eastern Province, and this has been compensated by losses of workers from family farms in Northern and Western provinces.

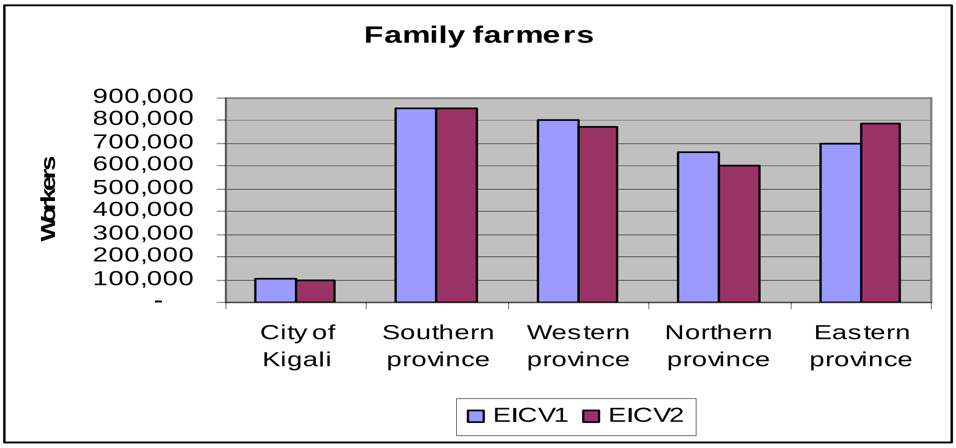
Table 9.1 Average share of household income from different sources

Survey	Stratum	Household agriculture	Non-agriculture self employment	Wage work		Non-labour
				Agricultural labour	Non-agricultural employment	
EICV1	Kigali	6.7%	27.6%	1.2%	51.8%	12.7%
	Other urban	60.1%	11.3%	4.6%	17.8%	6.1%
	Rural	75.3%	5.4%	6.4%	5.4%	7.5%
	Total	**68.6%**	**7.7%**	**5.8%**	**10.1%**	**7.8%**
EICV2	Kigali	8.2%	21.2%	1.5%	53.9%	15.3%
	Other urban	62.2%	12.2%	6.9%	10.6%	8.1%
	Rural	64.4%	9.8%	8.9%	7.7%	9.3%
	Total	**60.0%**	**10.9%**	**8.1%**	**11.4%**	**9.6%**

Source: author's computations from EICV1/2 surveys. Note: household agriculture includes livestock rearing and household level processing of products, as well as cultivation of crops, and includes a valuation of consumption of own production. Wage Income from agricultural labour is where individuals work for a different household.

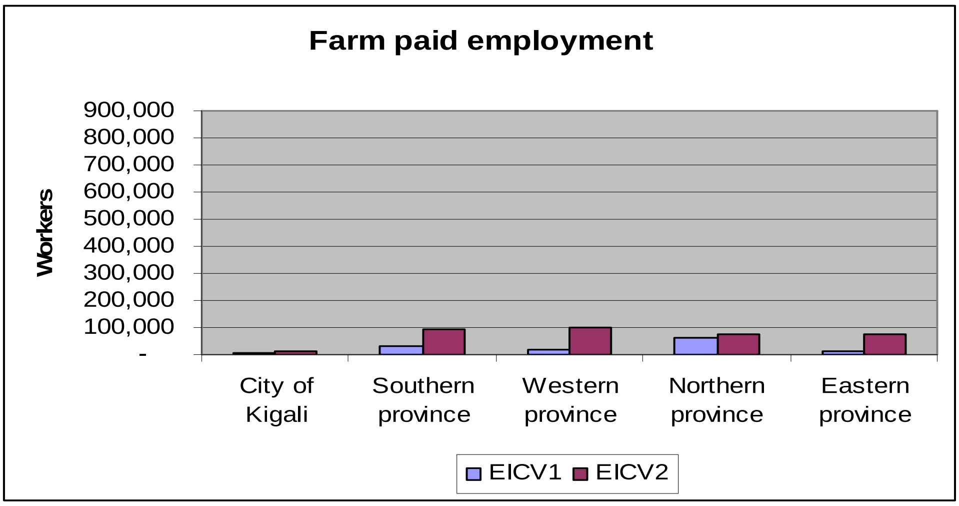
Figure 9.1 and Figure 9.2 show the numeric changes in employment on both family farms and in waged employment. While the numbers working on another household's farm for pay as their main job is small, the numbers doing so are growing, unlike the numbers engaged in family farming.

Figure 9.1 Change in numbers of subsistence farmers



Source: EICV1 and EICV2 data.

Figure 9.2 Change in the number of farm employees



Source: EICV1 and EICV2 data.

Almost two thirds of the labour on family farms is provided by women; only 39% of family farm workers are male, the remaining 61% are females. However, decision making on farms may be largely in the hands of men, as two thirds of the men are the heads of the household managing the farm. Of the other males working on farms almost all are sons of the heads, with just 5% other household members. For women the picture is different, 21% are household heads and another 50% are spouses of the head.

Table 9.2 Subsistence farmers by gender and relationship to the head of household

Relationship	Male	Female	All
Head of household	65.6	20.9	38.1
Spouse	0.2	50.6	31.2
Son or daughter of the head of household	28.6	23.3	25.3
Other relative	4.4	4.4	4.4
No relationship to the head of household	1.1	0.9	1.0
All	**100**	**100**	**100**

Source: EICV2 data: adults working as subsistence farmers.

Table 9.3 Mean age of subsistence farmers by gender

Relationship	Male	Female
	Mean	Mean
Head	42.7	51.6
Spouse	-	37.0
Son or daughter	20.9	21.5
Other	20.6	23.8

Source: EICV2 data: adults working as subsistence farmers.

Female heads of farming households are almost 10 years older than their male counterparts, even though the male head of household is in middle age, averaging 43 years old. Farming spouses are 37 years old on average and adult children and other members of the household working on the farm 21 years. There is very little difference in age characteristics across the provinces.

Table 9.4 Type of crop farming by consumption quintile

Consumption quintile	Staples only	Fruit or vegetables	Tea/coffee	All
1st Quintile	37.8	51.8	10.3	100
2nd Quintile	30.7	55.6	13.7	100
3rd Quintile	25.8	59.6	14.6	100
4th Quintile	23.1	59.5	17.4	100
5th Quintile	25.6	59.6	14.7	100
Total	**28.5**	**57.2**	**14.2**	**100**

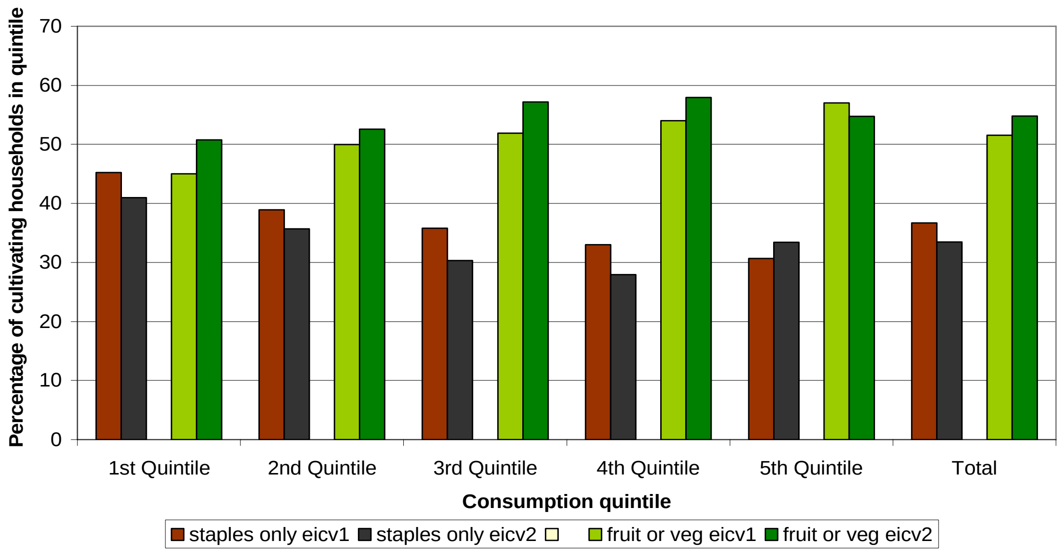
Source: EICV2 data: agricultural household.

In both surveys more than 90% of the Rwandese population undertakes some crop cultivation, and produce a wide diversity of products. The majority of households grow some of the traditional staple food crops, such as sweet potatoes, beans, manioc, sorghum, bananas and Irish potatoes[12]. But more than half of Rwandese households that cultivate crops are now also producing alongside their staple crops a wide range of fruit and vegetable products such as

[12] The full definition of staple crops used here includes the following: rice, corn, sorghum, wheat, other grains, manioc, yam, sweet potato, Irish potato, taro, soy, peanuts, beans, peas, sweet bananas, cooking bananas, beer bananas, cabbage, fresh peas, manioc leaves, *rengarenga* and *imbwija*.

avocados, papaya, mango, tomatoes, squash and peppers (Table 9.5). In all quintiles less than half of the farming households are engaged only in the production of staple crops, and this share has fallen between EICV1 and EICV2 (except in the top quintile). Around 10% of households in all quintiles also cultivate Rwanda's traditional export crops, coffee and tea.

Table 9.5 Patterns of cultivation of main crop groups, by quintile, for all households cultivating any crops



Source: authors' computations from EICV1/2 survey data.

Table 9.6 Type of crop cultivated by province

Type of crop	City of Kigali	Southern Province	Western Province	Northern Province	Eastern Province	Total
Staples only	33	35	46	25	18	32
Stapes and fruit or vegetables	60	48	36	68	73	55
Tea/coffee	7	17	18	8	8	13
All	**100**	**100**	**100**	**100**	**100**	**100**

Source: EICV2 data: Independent farmers over 15 years.

There are some differences between the provinces, with most farmers in Eastern and Northern provinces growing vegetables in addition to staple crops, while Western and Southern provinces grow more tea and coffee, but also focus on staples alone to a greater extent. The highest proportion of households growing staple crops alone is found in Western Province.

9.2 Agriculture and secondary jobs (small enterprises)

Table 9.7 Number of jobs held by subsistence farmers

Number of jobs	Head	Spouse	Son or daughter	Other	Head
1	58.7	74.7	66.8	68.5	66.3
2	35.8	23.5	30.4	27.2	30.1
3	5.5	1.8	2.8	4.4	3.6
All	**100**	**100**	**100**	**100**	**100**

Source: EICV2 data: all subsistence farmers 15 years and over.

One third of all subsistence farmers work in another job during the course of the year. The spouse is less likely to do another job than are other members, possibly as she has other household duties, however on average women only work two hours fewer per week in all jobs than do the men.

Table 9.8 Subsistence farmers: hours worked in all jobs

Number of Jobs	Head	Spouse	Son or daughter	Other	All
Total hours worked	Median	Median	Median	Median	Median
1	20	24	20	22	21
2	26	25	25	27	25
3	30	28	24	28	28
All	**24**	**24**	**21**	**24**	**23**

Source: EICV2 data: all subsistence farmers 15 years and over.

The average hours worked in all jobs by farmers is just 23 hours a week, those with multiple jobs worked slightly longer hours, but sons and daughters worked slightly fewer. There was little difference in the hours worked between men and women, women on average worked two hours fewer per week than the men. Between provinces there was little difference, except in the case of Southern Province, where farmers worked only 20 hours per week compared with the other rural provinces where 24 hours a week were worked.

Table 9.9 Subsistence farmers secondary jobs

Secondary job status	Male	Female	Male
Wage farm	40.5	61.1	51.1
Independent farm	5.8	3.5	4.6
Unpaid farm worker	2.9	3.7	3.3
Independent non-farm	27.6	5.9	16.4
Unpaid non farm worker	23.3	25.8	24.5
All	**100**	**100**	**100**

Source: EICV2 data: all subsistence farmers 15 years and over.

Almost 60% of secondary jobs were also in agriculture, but there was a gender difference in the secondary jobs carried out. While waged farm work was the largest category of secondary work for all farmers, women were much more likely to do it than were men. For men with second jobs 30% worked as independent enterprise proprietors, but only 6% of women did so. A quarter of both men and women worked as family helpers in these enterprises.

10 Wage rates and income

10.1 Wage rates – comparisons over time

As noted elsewhere in the report, there were important differences between the surveys in terms of the information that was collected. Wage comparisons over time can therefore only be accurately made for main ‘usual status’ jobs that were active at the time of the survey. In order to allow comparisons to be made across individuals – who will work different number of hours per day and months during the year – wages and the amount of time working were normalised on the basis of 8-hour day equivalents.

For agricultural labourers, real wage rates (expressed in January 2001 prices) from the survey data appear to have fallen in all regions by around 30%. The figures are given in below in Table 1.1, which shows average daily wage rates. It is notable that wages fell most in Eastern Province so that the gap in wage rates between provinces narrowed over the period. These trends may be reflecting the high levels of migration into Eastern Province noted in the EDPRS Rreport, where increased competition for agricultural labour might be expected to drive down wages.

There has been a similar, though smaller, decrease in the average number of days worked per year for these jobs in all regions except for Eastern Province. Further work would be required to determine if the reductions in day-equivalents were due to increases in the hours worked per day (so that to earn a given amount labourers are required to work increasing numbers of hours per day), or whether the number of days worked, and hence earnings, actually declined. The latter would be more detrimental to households, since agricultural labour is by nature highly casual and uncertain, and decreases in the number of days of employment secured per year would be expected to have a large impact on household consumption.

Table 10.1 Agricultural labour - average daily wage rates and days worked per year over time

	Daily Wage (FRw per day, 2001 prices)			Day-equivalents Worked per year		
	EICV 1	EICV 2	% Change	EICV 1	EICV 2	% Change
City of Kigali	406	276	-32%	217	187	-14%
Southern province	398	258	-35%	156	129	-17%
Western province	357	239	-33%	201	168	-16%
Northern province	305	228	-25%	179	162	-10%
Eastern province	540	261	-52%	151	172	14%
All	**360**	**247**	**-31%**	**175**	**158**	**-10%**

Source: EICV1 and EICV2. Waged workers over 15 years

These wage trends are also reflected in the wage data from the EICV price data, shown in **Erreur ! Source du renvoi introuvable.** below, which recorded average daily wage rates for manual agricultural workers in each region. Given that there has been an increase in food prices between the surveys, these trends in real wages suggest that nominal wage rates have not kept pace with inflation.

Figure 10.1 Real daily wages for manual agricultural workers

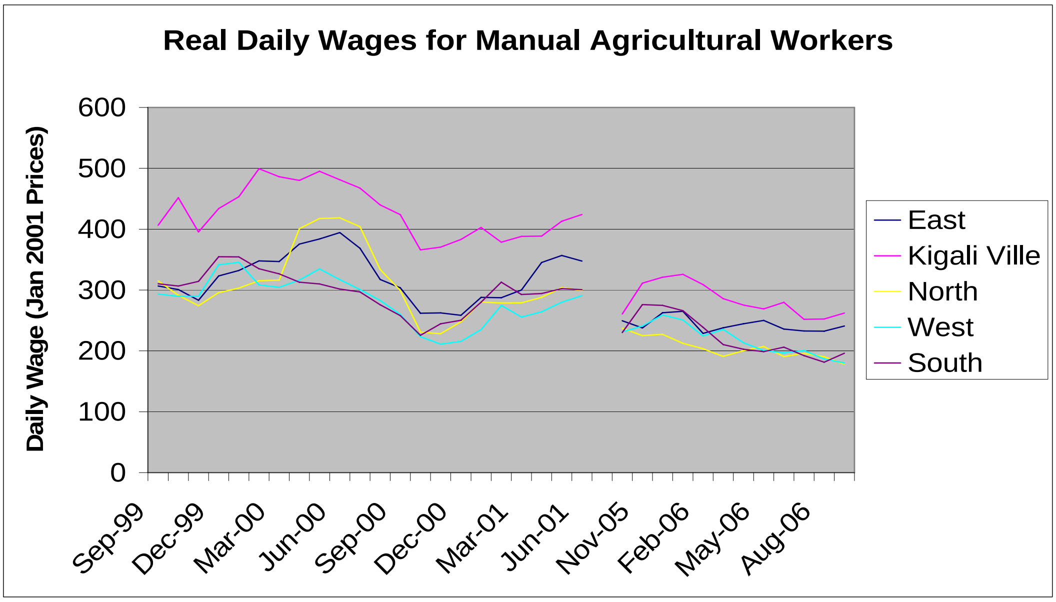


Table 10.2 Informal non-agricultural labour - average daily wage rates and days worked per year

Province	Daily Wage (FRw per day, 2001 prices)			Day-equivalents Worked per year		
	EICV 1	EICV 2	% Change	EICV 1	EICV 2	% Change
City of Kigali	691	626	-9%	324	310	-4%
Southern province	515	514	0%	329	236	-28%
Western province	545	521	-4%	279	255	-9%
Northern province	440	421	-4%	266	252	-5%
Eastern province	418	378	-10%	255	252	-1%
All	**587**	**520**	**-11%**	**305**	**269**	**-12%**

Source: EICV1 and EICV2 All waged employees 15 years and over

10.2 Wage rates by industry

Comparison of wage rates between industrial category shows large differences both in the average wage and the average days worked per year[13]. The largest reduction in real wages appears to be in the Mining, Manufacture, Utilities, and Construction grouping, as shown in Table 10.3 below, where a decrease of nearly 50% is evident, however this should the treated with some caution as the sample size is relatively small and the results in EICV1 employees in these industries are very heterogeneous. The changes in wage rates observed may be due to the increase in the numbers working in the construction sector as part of the public work programmes. Wages in services do

Commentaire [MS1] : This figure looks strange and is being checked again by the team

[13] Note that these wage estimates will not match exactly the wages shows in the previous section, since there are slight differences in classification between industry and work status.

not seem to be quite as affected by wage decreases, and have shown a slight increase in the number of days worked per year.

Table 10.3 Table 1: Average Daily Wage Rates and Days Worked Per Year by Industry

Broad industry grouping	Daily wage (Rwf per day, 2001 prices)			Day-equivalents worked per year		
	EICV 1	EICV 2	% change	EICV 1	EICV 2	% change
Agriculture	351	277	-21%	196	159	-19%
Mining, Manufacture, Utilities, Construction	1,721	894	-48%	251	226	-10%
Services	1,384	1,166	-16%	301	314	4%
ALL	1,058	751	-29%	260	237	-9%

Source: EICV1 and EICV2: Paid employees 15 years and over.

10.3 Income in kind

In addition to changes in the real value of wages, there is also evidence of shifts in the type of payment. Table 10.4 shows the distribution of wages between payment in cash, payment in kind, and payment in subsidised accommodation and transportation.

For farm labourers, there appears to be a significant shift away from payments in kind towards payments in cash. This is consistent with findings from the Poverty Update Report that there was evidence of growing monetisation between the two surveys. For non-farm workers, the shift in payment is generally away from in-kind payments towards subsidies for accommodation and transportation, with the percentage paid in cash changing less significantly.

Table 10.4 Percent of wages paid in cash, in kind, and in subsidised accommodation and transportation

	% of total wage income by payment type							
	EICV 1				EICV 2			
	Cash	In Kind	Accommodation	Transport	Cash	In Kind	Accommodation	Transport
Wage farm	%	%	%	%	%	%	%	%
City of Kigali	87	13	0	0	88	0	4	7
Southern province	82	19	2	0	97	1	1	1
Western province	83	17	1	0	95	1	3	1
Northern province	87	13	0	0	95	0	3	1
Eastern province	82	12	6	0	94	1	2	3
Wage non farm								
City of Kigali	88	1	9	2	81	2	11	6
Southern province	81	8	9	1	87	2	6	5
Western province	88	6	5	1	85	2	8	4
Northern province	80	13	6	2	89	3	6	2
Eastern province	84	6	10	1	80	3	10	7
All waged								
Southern province	82	12	7	1	92	2	4	3
Western province	87	9	4	1	90	2	5	3
Northern province	84	13	3	1	92	1	4	2
Eastern province	83	7	9	1	87	2	6	5
National	85	8	6	1	88	2	6	4

Source: EICV1 and EICV2: Paid employees 15 years and over.

In addition to variation in wages and days worked by sector, there are important differences in wages earned by poverty quintile, as shown in Table 10.5 below. In both farm and non-farm labour there appears to have been a reduction in wage inequality between the top and bottom quintiles. For farm labour the difference is particularly striking. EICV 1 data shows rather large differences between quintiles in daily wage rates, whereas the gap almost disappears in the EICV 2 data. While this would be consistent with the general trend towards increasing participation in agricultural labour markets, and therefore increasing competition that would be expected to drive down wages, further work would be required to better explain the observed trends. It should also be noted that the numbers in the wage farm category have increased dramatically between the surveys, and there may be much more diversity among waged workers in agriculture among households in the upper quintiles.

It is also notable that for the bottom four quintiles the average number of days decreased, whereas for the top quintile the number increased slightly. It would therefore appear that even though wages have evened out, better-off workers have more secure employment. By contrast, wage labourers in the bottom quintile appear to have benefited from a small increase in their real wage rate, both in farm and non-farm activities. This is at first sight somewhat surprising, particularly since the EDPRS EICV Report showed that agricultural labourers had the highest poverty incidence and tended to be the poorest of the poor, however Table 10.5 shows that for wage agricultural workers obtain around half their income from other sources, mainly their own farms. This implies that the poorest wage farm workers are struggling to supplement incomes from small or unproductive holdings. However, for farm labourers their average number days worked has fallen, and therefore in spite of the wage increase overall real wage income for this group may have decreased slightly.

Table 10.5 Wages and employment by quintile

		Daily Wage (FRw per day, 2001 prices)			Day-equivalents Worked per year		
	EICV2?	**EICV 1**	**EICV 2**	**% change**	**EICV 1**	**EICV 2**	**% change**
Wage farm	1st Quintile	237	241	2%	168	146	-13%
	2nd Quintile	344	239	-31%	154	151	-2%
	3rd Quintile	419	253	-40%	187	148	-21%
	4th Quintile	445	253	-43%	184	158	-14%
	5th Quintile	651	269	-59%	214	225	5%
Wage non farm	1st Quintile	303	493	63%	250	259	4%
	2nd Quintile	555	441	-21%	258	234	-9%
	3rd Quintile	719	447	-38%	257	259	1%
	4th Quintile	814	612	-25%	282	276	-2%
	5th Quintile	1,617	1,482	-8%	303	310	2%
ALL	1st Quintile	252	290	15%	187	169	-10%
	2nd Quintile	407	315	-23%	184	182	-1%
	3rd Quintile	544	338	-38%	216	196	-9%
	4th Quintile	729	481	-34%	259	233	-10%
	5th Quintile	1,586	1,343	-15%	300	300	0%

Source: EICV1 and EICV2, paid employees 15 years and over

10.4 Income

While wages are useful for understanding the relative returns to labour for different activities and for different groups, it is ultimately income – the combination of the wage earned and the amount of time spent in the activity – that matters for consumption within households. Analysis done in earlier reports showed that household income, while predominantly from one main source, is diversified.

Table 10.6 below examines the differences in income and diversification patterns between quintiles. Households were categorised by their main income category, which is simply the single largest source of income for the household. This is shown in the first column. Within these categories, there are some interesting differences by quintiles.

For households that are mainly agricultural self-cultivators, 85% of total household income is from self-cultivation for all the income quintiles. Differences occur, however, in that the better-off are more likely to diversify into non-agricultural self-employment, whereas the poor are more likely to supplement income with agricultural wages.

Households that earn most of their income from non-agricultural self-employment vary substantially by income quintile. Firstly, the 'All sources of income' column in the table below shows that households in this category are predominantly (51%) in the richest quintile, whereas only 6% are in the poorest. Furthermore, those households in the richest quintile are less diversified, as they earn 81% of their total income from these non-agricultural businesses. The bottom four quintiles are more diversified, tending to combine both farm and non-farm businesses. The same picture emerges for non-agricultural wage households, 63% of whom are in the top quintile versus 6% from the bottom quintile.

By contrast, predominantly agricultural labour households are found mainly in the bottom quintiles. All quintiles in this category earn roughly 2/3 of total income from agricultural labour, with the other third mainly coming from agricultural production.

Table 10.6 Household income by main income category and source

			Percent of Household Income by Source				
Main Household Income Category	**Household Consumption Quintile**	**All income sources**	**Agriculture**	**Non-Agricultural Self-Employment**	**Non-Labour**	**Agricultural Wages**	**Non-Agricu Wages**
Agriculture	1st Quintile	17%	84%	1%	6%	7%	
	2nd Quintile	22%	85%	2%	6%	5%	
	3rd Quintile	24%	85%	2%	7%	4%	
	4th Quintile	23%	85%	3%	7%	3%	
	5th Quintile	14%	83%	5%	7%	2%	
	All	**100%**	**85%**	**2%**	**6%**	**4%**	
Non-Agricultural Self Employment	1st Quintile	6%	18%	73%	3%	4%	
	2nd Quintile	9%	24%	68%	4%	1%	
	3rd Quintile	14%	22%	70%	4%	2%	
	4th Quintile	20%	21%	72%	6%	1%	
	5th Quintile	51%	8%	81%	5%	1%	
	All	**100%**	**15%**	**75%**	**5%**	**1%**	
Non-Labour Income	1st Quintile	20%	18%	2%	75%	2%	
	2nd Quintile	10%	25%	4%	64%	3%	
	3rd Quintile	11%	22%	1%	73%	0%	
	4th Quintile	19%	24%	3%	69%	2%	
	5th Quintile	40%	11%	4%	71%	2%	
	All	**100%**	**18%**	**3%**	**71%**	**2%**	

Agricultural wage Labour	1st Quintile	47%	28%	0%	5%	67%
	2nd Quintile	25%	26%	0%	5%	67%
	3rd Quintile	14%	27%	0%	8%	64%
	4th Quintile	10%	24%	0%	6%	69%
	5th Quintile	4%	22%	3%	9%	63%
	ALL	**100%**	**27%**	**0%**	**6%**	**67%**
Non-Agricultural wage Labour	1st Quintile	6%	16%	1%	7%	4%
	2nd Quintile	7%	17%	3%	5%	3%
	3rd Quintile	9%	18%	2%	7%	0%
	4th Quintile	14%	15%	2%	6%	1%
	5th Quintile	63%	4%	3%	8%	0%
	ALL	**100%**	**10%**	**2%**	**7%**	**1%**

Source: EICV2 - All Households

11 Time use

11.1 Domestic duties

In rural life domestic and farm duties are intertwined, and this report includes a brief analysis of the time households spent on domestic duties each week.

Although a low proportion of children are economically active, children contribute significant amounts of domestic labour to the household. Table 11.1 shows that in 2005/06 children under ten worked an average of nine hours a week on domestic chores, with girls spending several more hours on their tasks than boys. In the 11 to 15 year-old age group, the total rises to almost 14 hours, with girls working five or six hours a week more than their male counterparts. This trend for females to do more domestic work than males accelerates over the older adult groups, with women over 21 years devoting around five times the amount of time to domestic duties compared with men. The pattern does not vary greatly between members of poor and non-poor households. Women carry out on average 20 additional hours of work in running their homes and families.

Table 11.1 Mean number of hours spent during week on domestic duties

Age group	**Poor**		**Non-poor**		**National**
	Male	Female	Male	Female	
7 to 10	7.9	10.4	6.9	9.3	8.8
11 to 15	10.7	16.3	11.6	17.2	13.8
16 to 20	7.1	20.4	9.8	23.2	15.3
Over 21 years	4.0	24.2	5.4	25.9	15.9
Table Total	**6.5**	**20.3**	**7.2**	**22.2**	**14.5**

Source: EICV2 data.

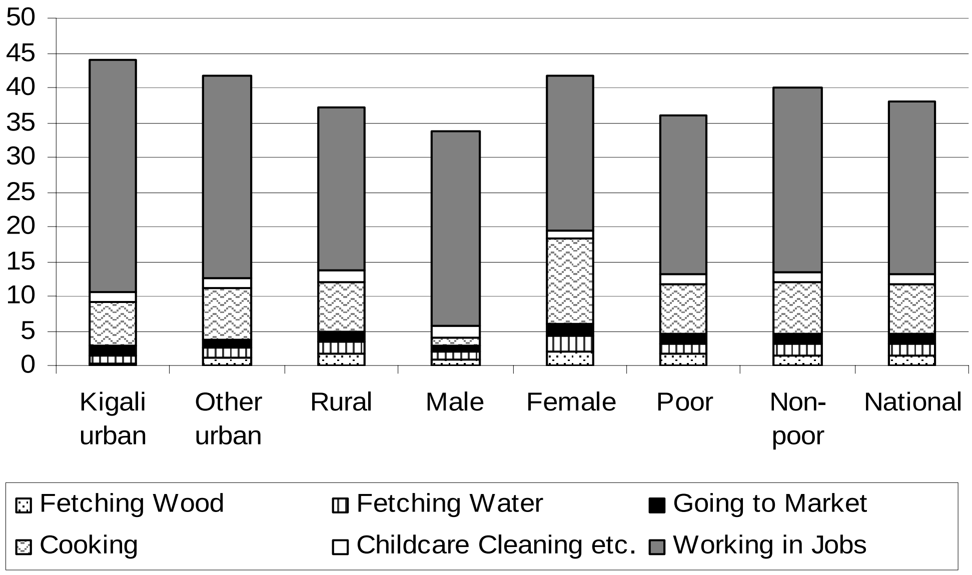
Table 11.2 Mean number of hours spent per week on domestic duties: by gender and stratum

Domestic Duties – Weekly	**Sex**		**Strata**			**National**
	Male	**Female**	**City of Kigali**	**Other urban**	**Rural**	
Weekly Time Fetching Wood	1.4	2.2	0.3	1.5	2.0	1.8
Weekly Time Fetching Water	2.4	3.0	1.8	2.3	2.8	2.7
Weekly Time Going to Market	0.6	1.1	1.1	0.9	0.9	0.9
Weekly Time Cooking	1.3	9.2	5.6	5.7	5.5	5.5
Weekly Time Cleaning Laundering & Childcare	1.2	5.6	5.0	4.0	3.4	3.6
Total Weekly Time on Domestic Duties	**6.9**	**21.1**	**13.9**	**14.3**	**14.5**	**14.5**

Source: EICV2 data.

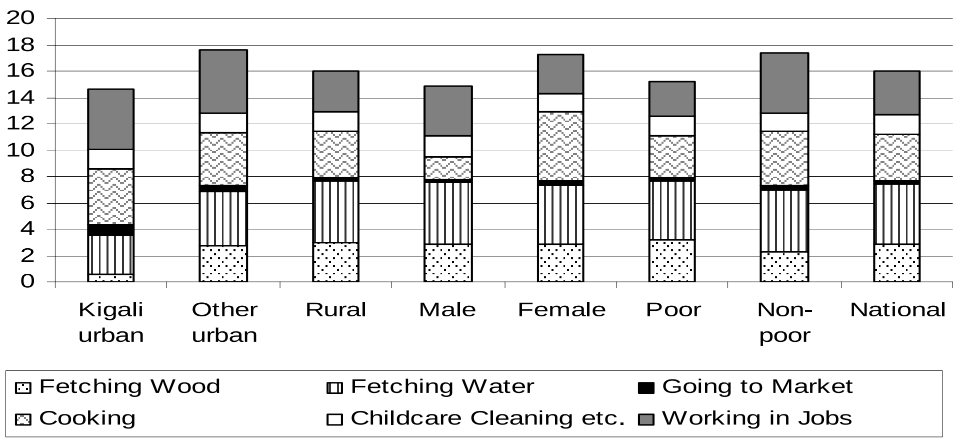
The EICV2 survey provides information on the type of domestic duty carried out by household members over the age of six years. People over six years old spend an average of 15 hours per week on domestic tasks, aggregated by all age groups nationally; females spend 21 hours and males seven. The results given in Table 11.2 show that cooking and childcare explain a large proportion of the gender differences found in 2005/06. Women and girls spend 15 hours a week on these two tasks alone; the time spent on cooking varies very little through the strata, however fetching wood and water take much longer in rural areas, while cleaning and childcare take more time in urban areas.

Figure 11.1 Time use per week – adults over 21 years



Source: EICV2 data.

Figure 11.2 Time use per week – Children 11 to 15 years



Source: EICV2 data.

References

Ministry of Finance and Economic Planning (MINECOFIN) (2007), 'EICV poverty analysis for Rwanda's EDPRS'. This is a detailed technical study which analyses in depth a number of topics on economic and social development using the EICV2 survey. The focus is on issues which relate to the Government of Rwanda's forthcoming Economic Development and Poverty Reduction Strategy. Apply to MINECOFIN for further details.

National Institute of Statistics (NIS) (2006), 'Preliminary Poverty Update Report'. This contains the initial findings from the EICV2 survey on a broad range of issues and it is aimed at readers with some technical understanding of poverty assessment. It is available on the NIS website at http://www.statistics.gov.rw/IMG/pdf/Master_Report.pdf (link correct as of May 2007).

Annex A Technical information

Sampling procedure

Introduction

The sampling frame for the EICV1 was based on the data and cartographic materials from the 1991 Rwanda Census of Population and Housing, while the EICV2 was based on the 2002 Rwanda Census frame. There were significant changes in the areas considered urban between the two censuses, but these geographic changes are taken into account in the comparative analysis between the EICV1 and EICV2 data. The sample design for EICV1 is described in the report on *Enquête Intégrale sur les Conditions de Vie des Ménages (Avec Volet Budget - Consommation) - Plan de Sondage* (Scott, July 1997). A detailed description of the EICV2 sample design is found in the report on Recommendations on Sample Design and Estimation Methodology for the Rwanda *Enquête Integrale sur les Conditions de Vie des Ménages* 2005. (Megill, June 2004).

A stratified two-stage sample design was used for both the EICV1 and EICV2. The primary sampling units (PSUs) were the enumeration areas or *zones de dénombrement* (ZDs) defined for the census. The sample of ZDs in each stratum was selected with probability proportional to size, where the measure of size was based on the number of households from the census frame. A new listing of households was conducted in each ZD, and a sample of households was selected at the second sampling stage. The units of analysis are the households and the individual members of the household.

One of the objectives of EICV1 and EICV2 was to provide reliable estimates of household consumption and other characteristics at the level of the 12 old provinces, as well as at the national level, City of Kigali, and other urban and rural. Later the country was divided into five new provinces; given the larger size of the new provinces, the corresponding estimates will have better precision than those at the old provincial level.

Stratification

The stratification of the sampling frame for both EICV1 and EICV2 was designed to improve the efficiency of the sample design and ensure a sufficient sample size for the major geographic domains of analysis. The sampling frame for these surveys was stratified by the 12 old provinces, as well as by urban and rural areas. At the national level three residential strata were defined: (1) City of Kigali, (2) other urban, and (3) rural. In the case of EICV1, the ZDs in the urban and rural strata for each province were ordered geographically to provide a corresponding implicit stratification.

In the case of the City of Kigali, there is a higher variability in socioeconomic characteristics compared to the other domains. Therefore a socioeconomic stratification was defined for the ZDs in the EICV2 sampling frame for the City of Kigali, using an indicator of *bien-être* (well-being) based on housing characteristics in the 2002 Rwanda Census data. The ZDs were coded by four socioeconomic quartiles, and this was used as a sorting variable to provide a corresponding implicit stratification. A new stratification code for "semi-rural" was introduced into the sampling frame for EICV2 to identify urban ZDs with at least 70 percent of households with agricultural operations (based on the 2002 Rwanda Census data). This "semi-rural" code was used as one of the sorting criteria for the sampling frame of the City of Kigali and the other urban stratum in each province. Within each stratum, the ZDs in the sampling frame were further sorted geographically to provide an additional level of implicit stratification.

Given that the rural economy is primarily agricultural, the socioeconomic characteristics of the rural households are generally correlated with the crop and livestock activities found in the different bio-climatic zones. Therefore the EICV2 sampling frame for rural strata was sorted by the ten bio-climatic zones as well as geographic codes to provide an effective implicit stratification.

Sample size and allocation

The sample size for EICV1 and EICV2 was determined by the precision required for the survey estimates for each domain, as well as by the resource and operational constraints. The total sample size for EICV1 was 570 ZDs and 6,450 households. For EICV2 this sample size was increased to 620 ZDs and 6,900 households, in order to provide a larger sample for the urban strata. One reason for increasing the urban sample for EICV2 was because of the expansion of urban areas following the 2002 Rwanda Census. The effective sample size for EICV1 was actually 6,420 households, since 30 non-interviews were not replaced for this survey.

Given that one of the objectives of these surveys was to produce reliable estimates for each of the 12 old provinces, a total of 40 sample rural ZDs was allocated to each province. A larger sample was allocated to the City of Kigali because of the larger variability of socioeconomic characteristics; 80 sample ZDs were selected in this domain for EICV1 and 100 ZDs for EICV2. In the case of the other urban strata, a sample of 50 ZDs for EICV1 and 80 ZDs for EICV2 were allocated to the 11 other provinces proportionately to their urban population. Table A.1 presents the distribution of the sample for EICV1, and Table A.2 shows the corresponding distribution for EICV2.

Table 4 shows the distribution of the urban sampling frame for EICV 2005 by province, “de facto” urban and semi-rural substrata.

Table A.1 Distribution of Segments and Households in Frame and Sample for EICV 2000-2001, by Stratum

DOMAIN	Frame		EICV Sample	
	No. *Cellules*/ Segments	Number of Households	No. *Cellules*/ Segments	Number of Households
RWANDA	9,136	1,587,495	570	6,450
URBAN TOTAL	571	92,312	130	1,170
Kigali-ville	402	52,956	80	720
Other Urban	169	39,356	50	450
RURAL TOTAL	8,565	1,495,183	440	5,280
Butare	615	135,573	40	480
Byumba	615	148,289	40	480
Cyangugu	680	99,005	40	480
Gikongoro	851	94,294	40	480
Gisenyi	826	237,591	40	480
Gitarama	1,079	157,160	40	480
Kibungo	641	127,686	40	480
Kibuye	627	84,277	40	480
Kigali (Rural)	1,339	166,112	40	480
Ruhengeri	923	168,791	40	480
Umutara	369	76,405	40	480

Table A.2 Allocation of Sample ZDs and Households by Province, Urban and Rural, for EICV 2005

PROVINCE	Total		Urban		Rural	
	No. ZDs	No. Hhs.	No. ZDs	No. Hhs.	No. ZDs	No. Hhs.
RWANDA	620	6,900	180	1,620	440	5,280
Kigali_Ville	100	900	100	900	-	-
Kigali ngali	46	534	6	54	40	480
Gitarama	54	606	14	126	40	480
Butare	54	606	14	126	40	480
Gikongoro	43	507	3	27	40	480
Cyangugu	45	525	5	45	40	480
Kibuye	45	525	5	45	40	480
Gisenyi	47	543	7	63	40	480
Ruhengeri	48	552	8	72	40	480
Byumba	47	543	7	63	40	480
Umutara	42	498	2	18	40	480
Kibungo	49	561	9	81	40	480

For EICV1 the number of households selected per sample ZD was nine for the City of Kigali and the other urban stratum, and 12 for the rural stratum. This was an effective sampling strategy given that the urban strata generally have more variability between ZDs and homogeneity of households within ZDs. This approach also provided a reasonable workload for the enumerators in the urban and rural ZDs based on the data collection procedures each cycle. Therefore this same sampling strategy was used for EICV2.

Sample selection procedures

For both EICV1 and EICV2 the ZDs within each stratum were selected systematically with probability proportional to size, where the measure of size was based on the number of households in the ZD from the corresponding census frame (1991 for EICV1 and 2002 for EICV2). Following a new listing of households in the sample ZDs at the second stage, nine sample households were selected systematically in each sample urban ZD and 12 sample households were selected in each rural ZD. This sampling strategy provided an approximately self-weighting sample (that is, the sampling weights were similar) within each stratum. A sample of possible replacement households was also selected systematically within each sample ZD. Whenever an original sample household could not be interviewed for any reason, it was substituted by one of the random replacement households.

Deviation from sample design

As indicated above, any household that was not interviewed as per the original listing and selection was replaced with a reserve household. Each Enumeration Area (EA) had four households on reserve. A total of 522 households were replaced over the course of the survey. In addition, several EAs were swapped from their scheduled cyclic visit due to seasonal accessibility problems.

Table A.3 Cyclical visits swapped

Cluster	From	To
337	Cycle 6	Cycle 2
364	Cycle 8	Cycle 2
131	Cycle 6	Cycle 3
269	Cycle 5	Cycle 3
270	Cycle 5	Cycle 3
264	Cycle 3	Cycle 5
271	Cycle 3	Cycle 5
132	Cycle 3	Cycle 6
327	Cycle 2	Cycle 6
362	Cycle 2	Cycle 8

Response rates

Out of the 6900 household sample, 92.4% responded. All 7.6% of households that were not interviewed (for the reasons provided below) were replaced.

Table A.4 Reasons for houses not interviewed

Reasons for response/non-response	Households	%
Yes	**6378**	**92.4**
No, address not found or uninhabited dwelling	**254**	**3.7**
No, change of residence	**139**	**2.0**
No, sick or deceased	**29**	**0.4**
No, refused	**27**	**0.4**
No, other	**73**	**1.1**
Total	**6900**	**100.0**

The City of Kigali and the old province of Butare had the highest refusal rates, with about 14% of the original selected households being replaced. The primary reason given for replacement was the inability to positively identify the dwelling (or the selected dwelling was found uninhabited).

Weighting

In order for the estimates from each survey to be representative at the national level, it is necessary to apply sampling weights to the survey data. The weights for the sample households were calculated as the inverse of the overall probability of selection, taking into account each sampling stage. Given the nature of the sample design and the new listing of households, the weights vary by sample ZD. An Excel spreadsheet with all the sampling frame information for the sample ZDs was used for calculating the weights, which were then attached to the corresponding records in the survey data files.

Details on the sample design and weighting procedures used are available on the CD Rom Data Archive for the EICV available for the NISR.

Annex B Data treatment

EICV1 and EICV2 are not directly comparable. EICV1 collects information about individuals' economic activity, in their main and secondary jobs. EICV2 collects information about all the jobs that an individual does, and the individual is not asked which job is the main job. The analysis of the EICV2 starts with the identification of the individuals main and secondary jobs, and attempts as far as possible to replicate the definitions of main job used in EICV1.

In line with international norms, two types of economic activity are defined, one for the long reference period and one for the short.

- Main current job is the main job in the last 7 days
- Main usual job is the main job in the last 12 months

The following logic was used:

1. Persons with only one job over the reference period are allocated that job as the main job.
2. Persons with more than 1 job, for the long reference period take the number of months worked, and use one with most months. For the short reference period the number of hours worked. In the event of a tie,
    a. Most hours worked in the last week (long reference period)
    b. In the event of a tie jobs are ordered by most days worked, followed by non-farm jobs taking precedence over farm jobs. Secondary jobs are numbered from 1 to a maximum of 4 jobs.

B.1 Economic activity status

For each person usual economic activity status was created. Step one is to identify all full time students, either in school or training. If no work was carried out over the week or year then they were a student, otherwise working. If no work had been done in the last week or year and the person was wanting work then coded as unemployed. If not in work, not a student and not seeking work then person was economically inactive. Five categories were created:

1. Working
2. Unemployed
3. Student
4. Under 7 years old
5. Inactive - other

B.2 Constructing usual work status

The main challenge was to construct a work status variable which corresponds with data collected in EICV1. In EICV2 the employment status question S4BQ14 is used as the main source and this is combined with the occupation group. Group 6 identifies farming as an occupation. Where the answer to S4Q14 is missing, then the records of working people have been coded according to the best possible solution.

The questions in Section A Q2 to Q5, in both surveys act as a guide but have been found to be very unreliable when compared with both the occupation and work status for the main job. The unreliability of these first series of questions is found in both surveys. It is recommended that these questions do not be used as filters in the future. The internal consistency between some of the sections is weak, more training and exhaustive skips are required in future surveys.

The variable work status was created with six categories to reflect the structure of the workforce, some problems were identified between the surveys, primarily in the treatment of the independent farmer, self employment and family enterprise workers on farms. To maintain consistency with the EICV2, independent farmers were restricted to one per households, and allocated to the head.

Usual Work Status (workstats)

1 = Salaried and a farming occupation

2 = Employer or Independent, and farming occupation

3 = Family worker or apprentice and farming occupation

4 = Salaried and non-farming occupation

5 = Employer or Independent, and non-farming occupation

6 = Family worker or apprentice and non-farming occupation

Variable and Value Names Usual Working Status (WorkStats)

1 'Wage farm'
2 'Independent farm'
3 'Unpaid farm worker'
4 'Wage non farm'
5 'Independent non-farm'
6 'Unpaid non farm worker'.