



The Republic of Rwanda



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Labour Force Survey

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Foreword

Labour statistics play an essential role in the efforts of the country to achieve decent work for all. These statistics are needed for the development of policies towards this goal and for assessing progress towards decent work.

In the context of Rwanda's commitment to achieve its overarching objective set in vision 2020 of transforming Rwanda into a middle income country, the Second Economic Development and Poverty Reduction Strategy (EDPRS 2) sets a target of creating 200,000 off-farm jobs annually to speed up employment growth. At the same time, labour market indicators of the sustainable development goals are also to be monitored. To monitor progress towards these goals and targets, relevant, reliable, coherent, timely and accessible labour statistics have to be produced.

The National Institute of Statistics of Rwanda introduced the labour force survey (LFS) program to provide key stakeholders, Ministry of Public Service and Labour, Ministry of Finance and Economic Planning, the Ministry of Education, International Labour Organization and other users, with needed labour statistics.

The ultimate goal of the labour force survey is to collect data on employment and labour underutilization characteristics of the population on a continuous basis, providing bi-annual estimates of the main labour force aggregates.

The survey programme begun with a pilot survey conducted in February 2016. After the pilot survey, the first round of the Rwanda labour force survey was conducted in August 2016 to derive estimates of the main labour force aggregates. The present report is for the second round whose data collection started in February and ended in April 2017.

NISR congratulates all those who contributed in one way or the other in this exercise. In particular, NISR expresses its gratitude to the Government of Rwanda and the World Bank for resourcing the survey under the Programme for Results, the Ministry of Public service and labour for the close collaboration throughout the survey and the Rwanda – German Development Cooperation for providing technical assistance by Farhad Mehran in the design and analysis of the survey as part of its technical cooperation project GIZ Eco-Emploi.



Yusuf MURANGWA
Director General of NISR

Executive summary

Rwanda conducted its first national labour force survey (LFS) in August to September 2016 and it was followed by the second round conducted in February to April 2017. The main objective of the survey was to collect current data on the size and characteristics of the labour force, employment, unemployment and other labour market characteristics of the population. The survey was also designed to measure different forms of work, in particular, own-use production work and other components of labour underutilization including time-related underemployment and potential labour force in line with the new international standards, adopted by the 19th International Conference of Labour Statisticians (ICLS) in 2013.

According to the new international standards, employment includes only persons working for pay or profit, excluding persons engaged wholly or mostly in subsistence foodstuff production. The effect of this is to lower the count of employment (according to the old definition) and to higher the count of unemployment because some of the subsistence foodstuff producers would be looking and available for work for pay or profit and thus be classified as unemployed. The comparison of some key indicators using old and new definition is presented in this section as well as in the tables at the end of the section.

The survey also collected data on certain particular labour-market related issues such as working children 5 to 17 years old, income from employment, migrant workers and workers with disabilities.

The scope of the survey covered all persons living in private households, excluding the institutional population permanently residing in places such as hostels, health resorts, correctional establishments etc., as well as persons living at their work-sites and in seasonal dwellings. The survey was designed as part of a regular survey programme to be conducted twice a year, in February and August of each year, using a rotation sample scheme with a sample size of 9,344 households per round, selected by means of a stratified two-stage probability design based on information from the Population and Housing Census 2012 updated at the second stage of sampling with fresh listing of the selected enumeration areas. The resulting estimates of the main labour force indicators at the national level have standard errors of about 0.6 percent.

The survey results are analyzed in this report under fourteen headings and sub-headings. The main highlights are described below. Key summary indicators are presented at the end of this section.

Labour force, employment and unemployment

According to the survey results, among the 6,709,000 persons 16 years old and over living in private households, about 3,626,000 persons representing 54 percent were in the labour force, either employed (3,019,000) or unemployed (607,000). The remainder 3,084,000 persons were outside the labour force including some 1,766,000 persons engaged wholly or mostly in subsistence foodstuff production, not classified as employment according to the new international standards on statistics of work, employment and labour underutilization.

The unemployment rate stood at 16.7 percent, indicating that roughly for six persons in the labour force there was one person unemployed. The unemployment rate was higher among women (17.5 percent) than among men (16.1 percent) and higher among young people (21.0) than among adults (13.3%). It was also higher in the urban areas (18.1 percent) than in the rural areas (16.2 percent). This situation is different from the one in August 2016, where the unemployment rate was higher in rural areas (19.8 percent) than in urban areas (16.4 percent). This confirms the fact that during the low season of agriculture a substantial number of people who are normally involved in subsistence agriculture in rural areas are looking for an alternative job as they are waiting for the next agricultural season. The median duration of seeking employment was only 4.2 months but about 32 percent of the unemployed were seeking employment for 12 months or more (long-term unemployment).

Other components of labour underutilization

The unemployment rate is not the only indicator of the unmet needs for employment. Other indicators combine unemployment and time-related underemployment and potential labour force. In total there were 904,000 persons classified as time-related underemployed and 1,415,000 persons as potential labour force. The composite measure of labour underutilization including unemployment was 58 percent, more than a half of the extended labour force was either unemployed, time-related underemployed or in the potential labour force (persons outside the labour force who were available for employment but were not seeking employment during the reference period as well as others outside the labour force who were seeking employment during the reference period but were not currently available for work).

Subsistence foodstuff producers

The unemployment rate obtained in the February 2017 labour force survey under the new international standards (16.7 percent) differed considerably from the rate (4.5 percent) that would have been obtained under the old definitions used in past household surveys and population censuses of Rwanda. The main reason explaining the difference is the statistical treatment of subsistence foodstuff producers in the definition of employment. The effect of this is to lower the count of employment according to the old definition (by 2,131,000 persons) and to higher the count of unemployment (by 365,000 persons).

Branches of economic activity

Under the new international standards, agriculture employment includes only those who produce agriculture good intended mainly for sale or barter. Agriculture employment was still predominant even under the new international standard with a proportion of 45.9%. The branch of economic activity with the next highest number of employed persons was trade (14.9 percent) followed by construction (7.9 percent) and activities of households as employers of domestic personnel (7.1 percent). Using the broad branch of economic activity, the share of industry was 14 percent and 40 percent in services.

Occupations

The occupation category with the highest proportion (57 percent) was elementary occupations involving the performance of simple and routine tasks. This is followed by services and sales workers (17.2 percent), followed by craft and related trades workers (8.2 percent) and professionals (5.6 percent).

Status in employment

The employed population consisted of employees, paid apprentices and interns (72 percent), employers (1 percent), own-account workers (22.5 percent), contributing family workers (4 percent) and members of producers' cooperatives (0.5 percent).

Informal sector and informal employment

The results of the survey show that there were about 2,355,000 employed persons in the informal sector, corresponding to about 83 percent of total employment. There were in total 2,748,000 person with informal employment at main job, constituting almost 91 percent of total employment. A significant result was the presence of some 241,000 person with informal jobs in formal sector.

Working time

The average and median number of hours usually worked at all jobs were 39.1 and 36 hours per week respectively, and the corresponding hours actually worked during the reference week were 33.3 hours for the average and 30 hours for the median. For most people (58.7 percent), the weekly usual and actual hours of work at all jobs were the same. For others, the usual hours of work was higher than the actual hours of work due to various reasons, including vacation or holidays or sickness during part or the whole of the reference week (38.7 percent). For the remaining, the hours usually worked was lower than the hours actually worked. The total volume of employment in terms of actual hours worked at all jobs in the reference week was 97 million hours.

The combination of usually working hours in employment and in foodstuff production give the number of usually working hours according to the old definition of employment. The corresponding mean and median usually working hours were 40.7 and 40.0 hours per week.

Income from employment

The average income from paid employment of employees at main job was about 55,934 RFW per month while the median was 20,800 RWF. The national average hourly cash income from employment of employees at main job was 394 RWF per hour. The corresponding values were 228 RWF per hour in agriculture, 529 RWF per hour in industry and 604 RWF per hour in services.

Population outside the labour force

The number of persons of working age who were outside the labour force was about 3,084,000 the majority of them being subsistence foodstuff producers (57 percent). A large part of the population outside the labour force considered themselves to be unemployed (27 percent), or fulfilling domestic tasks in their household (28 percent). The remainder (45 percent) considered themselves as pupil, student, post-graduate, in retirement, or permanently unable to work due to disabilities or other health problem.

Women and equal opportunities

Women accounted for close to 46 percent of the labour force, mostly engaged as crop farm labourers, domestic cleaners and helpers, stall and market salespersons, and shopkeepers. Among employed persons with managerial positions, 27 percent were women. The analysis of the survey data also showed that, after controlling for differences in characteristics of males and females as well the differences in their jobs, there is no gender pay gap in hourly earnings.

Youth and education

The unemployment rate among young persons 16 to 30 years old was 21.0 percent. The survey showed an increasing pattern of youth unemployment rate from about 16.6 percent for young people with no educational attainment to 35.3 percent for youth with secondary education with a slight decline to 27.7 percent among youth who completed university education.

Participation in training programmes

In total an estimated 576,000 persons completed a trade or technical vocational course in the past. The most popular training courses were tailoring, masonry with participation rates of 29 percent, 22 percent, respectively, as well as culinary art and carpentry with about 7 percent each. Among the training courses with more than 1 percent of the graduates, Domestic electricity was the most successful training course with current employment rate of 78 percent, followed by welding carpentry, automobile body repair and hair dressing, with current employment rates of 71, 65.9 and 63.2 percent, respectively. Graduates in Technical and Vocational Education Training were more successful than graduates in general education at the labour market. The proportion of employed population among those who completed TVET was 58% while the corresponding proportion among those who followed general education was 42%. The unemployment rate among both TVET and general education graduates was relatively the same (19 percent).

Working children

In many countries, children below the legal working age are engaged in economic activity, earning money in a variety of casual or informal jobs or helping without pay in family enterprises. Not all work performed by children is however *child labour*. According to the international standards concerning statistics of child labour adopted by the 18th ICLS in

2008, the term *child labour* refers to the engagement of children in prohibited work and, more generally, in types of work to be eliminated as socially and morally undesirable as guided by national legislation and relevant ILO conventions and recommendations.

The RLFS was not designed to measure child labour, however, the survey collected some data on children aged 5 to 17 that allows estimating some aspects of work activities of children. The survey results show that there were 351,350 working children 5 to 17 years old during the reference period, representing 9.3 percent of the total number of children in that age category. Only 0.3 percent of children 5 to 12 years old were working and the majority of them were working 20 hours or less per week. The corresponding rates for those aged 13 to 15 years old and 16 to 17 years old were 14.3 percent and 41.5 percent respectively. The major part of the working children was engaged in agriculture activities (75%), and working 20 hours or less per week (60 percent).

Own-use producers

About 82 percent of the working age population engaged in one or more types of own-use production work, spending on average 19.1 hours of work per week in such activities, for example household chores including shopping, preparing meals (9.2 hours per week), looking after children and elderly (7.3 hours per week), searching for fodder for domestic animals (7.5 hours per week), manufacturing household goods for own or family use (5.5 hours per week), constructing own dwelling or making major repairs (4.8 hours per week), collecting firewood (4.6 hours per week), and fetching water for the household including travel time (4.0 hours per week).

Migrant workers

The stock of the migrant population at the time of the survey was 1,342,000 persons, representing 11.6 percent of the total population. Among them, an estimated 651,000 were internal migrant workers, the bulk were internal migrant workers engaged as domestic workers (24 percent), or in agriculture (21 percent), in wholesale and retail trade (15 percent) and in construction (9 percent).

Workers with disabilities

In total there were 394,963 persons five years old and over with disabilities, representing a prevalence rate of slightly less than 3.4 percent. About a quarter (24.5 percent) of the working age persons with disabilities were labour force participants, but the unemployment rate of persons with disabilities (18.5 percent) was significantly higher than the unemployment rate of the working age population at large (16.7 percent).

Rwanda Labour force survey February 2017: Summary labour force indicators

Working age population 16 years old and over (WAP)									
6,709,183 persons									
Children 5 to 17 years old = 3,798,000 Working children = 351,000 (9.3%) 5-12 yrs: 0.3% ; 13-15 yrs: 14.3% ; 16-17 yrs: 41.5%	Outside the labour force 3,083,653 persons		Labour force (LF) 3,625,532 persons Labour force participation rate =LF/WAP 54.0%						
			Employed (E) (All who worked for pay or profit) 3,018,532 persons Employment to population ratio=E/WAP 45.0%			Unemployed (U) (All not employed but seeking and available to work for pay or profit) 606,997 persons Unemployment rate=U/LF 16.7			
	Others outside the labour force	Subsistence foodstuff producers	Agriculture excluding subsistence foodstuff production	Industry	Services	Primary education or below	Secondary education	Tertiary education	
	42.7%	57.3%	45.9%	14.4%	39.7%	70.3%	23.6%	6.0%	
Supplied weekly labour: 97 million hours									
Labour underutilization (2,926,000persons): Unemployed (607,000) + Time-related underemployed (904,000) + Potential labour force (1,415,000) Composite measure of labour underutilization (58.0%)									

Comparison of General and Technical and Vocational education

Level of attained	Employment to population ratio			Unemployment rate		
	General education	TVET	Total	General education	TVET	Total
None		61.4	45.7		11.8	14.4
Primary	42.7	59.1	44.9	16.3	15.9	16.2
Lower secondary	23	49.3	27.3	22.2	28.8	24.2
Upper secondary	43.3	57.4	45.5	26.3	28.8	26.8
University	72.9	73.1	72.9	15.4	20.9	15.9
Young/Adult						
Young (16-30)	33.4	54.4	41.3	23.8	25.2	21
Adults (31+)	55	61.3	48.3	13.3	15.2	13.3
Total	42.1	58.3	45	18.6	19.5	16.7

Comparison of old and new definitions

Indicators	Old definition			New definition		
	Total	Urban	Rural	Total	Urban	Rural
Labour force participation rate	80.4	70.7	83.3	54.0	64.5	50.8
Employment to population ratio	76.8	61.1	81.5	45.0	52.9	42.6
Unemployment rate	4.5	13.6	2.1	16.7	18.1	16.2
Youth Unemployment rate	7.1	17.4	3.9	21.0	21.0	20.9
Average usually working hours	37.0	47.7	34.6	39.0	50.5	34.8
Median usually working hours	36.0	48.0	31.0	36.0	48.0	35.0

OCCUPATION	Old definition			New definition		
	Total	Urban	Rural	Total	Urban	Rural
Managers	0.7	3.3	0.2	1.3	3.8	0.3
Professionals	3.3	9.1	2.0	5.6	10.5	3.8
Technician and Associate Professional	0.9	3.5	0.3	1.6	4.1	0.6
Clerical and support workers	0.6	2.6	0.1	1.0	3.0	0.3
Service and sales workers	10.1	20.9	7.6	17.2	24.1	14.6
Skilled agricultural	44.6	14.7	51.4	5.4	1.3	7.0
Craft and related trade workers	4.8	9.0	3.9	8.2	10.4	7.4
Plant and machines operators	1.6	4.6	0.9	2.7	5.3	1.7
Elementary occupations	33.4	32.4	33.6	57.0	37.5	64.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Economic activity	Old definition			New definition		
	Total	Urban	Rural	Total	Urban	Rural
Agriculture, forestry and fishing	68.3	22.6	78.8	45.9	10.5	59.4
Mining and quarrying	0.8	0.2	0.9	1.3	0.3	1.8
Manufacturing	2.7	5.0	2.1	4.5	5.8	4.1
Electricity, gas, steam and air conditioning supply	0.2	0.5	0.1	0.3	0.6	0.2
Water supply, sewerage and waste management	0.2	0.3	0.1	0.3	0.3	0.2
Construction	4.7	7.2	4.1	7.9	8.4	7.8
Wholesale, retail trade, repair of motor vehicles	8.8	19.1	6.4	14.9	22.1	12.2
Transportation and storage	2.5	6.5	1.6	4.3	7.5	3.1
Accommodation and food service activities	0.8	2.8	0.3	1.3	3.2	0.6
Information and communication	0.2	0.6	0.1	0.3	0.6	0.1
Financial and insurance activities	0.5	1.8	0.1	0.8	2.1	0.3
Real estate activities	0.1	0.2	0.0	0.1	0.3	0.1
Professional, scientific and technical activities	0.4	1.8	0.1	0.7	2.0	0.2
Administrative and support service activities	0.9	2.6	0.5	1.5	3.0	0.9
Public administration and defense	1.0	3.1	0.6	1.8	3.6	1.1
Education	2.1	3.8	1.7	3.5	4.4	3.2
Human health and social work activities	0.9	3.0	0.4	1.5	3.5	0.8
Arts, entertainment and recreation	0.1	0.4	0.1	0.2	0.5	0.1
Other service activities	0.9	2.1	0.6	1.5	2.4	1.1
Activities of households as employers	4.1	16.1	1.4	7.1	18.6	2.7
Activities of extraterritorial organizations and bodies	0.1	0.4	0.0	0.2	0.5	0.1
Total	100	100	100	100	100	100

Trend of Labour force survey Main indicators

Indicators	Aug-16	Feb-17
Labour force participation rate	50.6%	54.0%
Foodstuff production participation rate(outside LF)	25.3%	26.3%
Proportion of labour force who completed at least secondary school education	14.0%	16%
Employment to population ratio	41.1%	45.0%
Percentage of employed population in market oriented agriculture	37.3	45.9
Percentage of employed population in industry	19.0%	14.3
Percentage of employed population in services	43.8%	39.7
Number of off-farm jobs(main and secondary job)	1,753,523	1,691,408
Informal employment rate	91%	91%
Proportion of informal employment in non-agriculture employment	86.2%	84.1%
Median weekly hours actually worked	30	30
Median weekly hours usually worked	40	36
Supplied labour in hours (In employment) during the reference week	93,404,352	97,079,517
Unemployment rate	18.8%	16.7%
Unemployment rate among university graduates	17.2	15.9
Unemployment rate among secondary school graduates	25	26.8
Unemployment rate among females	22.7	17.5
Unemployment rate among males	15.7	16.1
Unemployment rate among TVET graduates	18%	19.5
Unemployment rate among general education graduates	20%	18.6
Unemployment rate among persons with disability	20.8	18.5
Youth unemployment rate	20.9%	21%
Time related underemployment rate	31.4%	29.9%
Combined rate of labour underutilization	62.3%	58.0%
Average monthly salary from paid employment	55,737 Frw	55,934 Frw
Average monthly salary in agriculture	20,478 Frw	22,244 Frw
Average monthly salary in industry	64,306 Frw	75,668 Frw
Average monthly salary in services	91,505 Frw	103,821 Frw
Proportion of TVET graduates who are employed	59%	58.3
Proportion of General education graduates who are employed	40%	42.1
Share of women in non -agricultural paid employment	29.30%	33.0%
Share of youth in non-agricultural paid employment	53.60%	52.30%
Manufacturing employment as a proportion of total employment	5.80%	4.50%
Economic dependency ratio	143	124

Table of Contents

Foreword	i
Executive summary	iii
Table of Contents	xi
List of Table	xiii
List of statistical tables	xv
List of Figures	xix
Introduction	1
Chapter 1. Main labour force indicators.....	3
Chapter 2. Population, labour force and subsistence foodstuff producers	9
Chapter 3. Labour force participation	13
Chapter 4. Employment.....	15
4.1. Branches of economic activity and occupations.....	16
4.2. Informal sector and informal employment	21
4.3. Working time and income from employment.....	23
Chapter 5. Unemployment and labour underutilization	29
Chapter 6. Persons outside the labour force	35
Chapter 7. Women and equal opportunities	39
Chapter 8. Youth	43
8.1. Youth and education	43
8.2. Youth neither in paid or market employment, nor in education or training (NEET)	44
Chapter 9. Participation in training programmes	47
Chapter 10. Working children	51
Chapter 11. Own-use producers	57
Chapter 12. Migrant workers	63
Chapter 13. Workers with disabilities	69
Chapter 14. Main indicators at district level	73
14.1. Labour force participation	73
14.2. Unemployment	76
Annex A. Main concepts and definitions	79
Annex B. Survey methodology and data quality	85
Annex C. Statistical Tables	104
Annex D. Questionnaire	174
Annex E. List of officials involved in the survey	175

List of Table

Table 1.1: Main labour force indicators, February 2017	3
Table 4.1: Employed persons by branch of economic activity in main job.....	17
Table 4.2: Employed persons by occupation in main job	19
Table 4.3: Four digits occupation with high segregation.....	21
Table 4.4: Cross-classification of employment by informal or formal job and informal or formal production unit	22
Table 4.5: Usual and actual hours of work at main and secondary jobs.....	24
Table 4.6: Period of coverage of last income payment of paid employees at main job	26
Table 4.7: Size distribution of harmonized monthly income from employment at main job	27
Table 5.1: Duration of unemployment: Elapsed duration of job search	30
Table 6.1: Main source of livelihood of persons outside the labour force by sex and age group	36
Table 7.1: Gender wage gap using extended Mincer earning equation	40
Table 7.2: Women and men in managerial positions.....	41
Table 10. 1: Distribution of working children by age group, working hours and type of work	52
Table 10. 2: Distribution of working children aged 14-17 years old by economic activity according to age group	53
Table 10. 3: Distribution of working children by economic activity, according to weekly working hours	54
Table 11.1: Average time spend per week on own-use production	58
Table 11.2: Average time spend per week on subsistence foodstuff production.....	60
Table 12.1: Province of current residence and province of last move of internal migrants.	64
Table 12.2: Province of current residence and country of last move of international migrants. .	64
Table 13.1: Prevalence of disabilities by type of disability.	69

List of statistical tables

Table 1: Summary labour force indicators, February 2017	105
Table 2: Comparison of old and new definition	106
Table 3: Population by sex, age group and urban/rural area, February 2017	108
Table 4: Households by household size, sex of head of household and urban/rural area, February 2017	109
Table 5: Disabled persons by sex, age group, urban/rural area and type of disability, RLFS February 2017	110
Table 6: Disabled working age persons by status in employment and type of disability, RLFS February 2017	110
Table 7: Population 16 years old and over by education status and urban/rural area, February 2017	111
Table 8: Population 16 years old and over by sex, level of educational attainment and urban/rural area, February 2017	111
Table 9: Population 16 years old and over with respective field of education by sex, urban/rural area, February 2017	112
Table 10: Population 16 years old and over in trade or training courses by sex, duration of training, and urban/rural area, February 2017	113
Table 11: Population 16 years old in/attended trade and technical training by sex, technical skills, and urban/rural area, February 2017	114
Table 12: Population 16 years old and over who received trade and technical training by sex, place of the training, main sponsor, Outcome of the Training and urban/rural area, February 2017	116
Table 13: Population 16 years old and over by labour force status, sex, age group, and urban/rural area, February 2017	117
Table 14: Population 16 years old and over by labour force status, sex, educational attainment, and urban/rural area, February 2017	119
Table 15: Population 16 years old and over by labour force status, sex, marital status, and urban/rural area, February 2017	119
Table 16: Employed population by sex, age group, and urban/rural area, February 2017	120
Table 17: Employed population by sex, occupation group, and urban/rural area, February 2017	121
Table 18: Employed population by sex, current education attendance, and urban/rural area, February 2017	122
Table 19: Employed population by sex, educational attainment, and urban/rural area, February 2017	122
Table 20: Employed population by sex, occupation group and level of educational attainment, February 2017	123
Table 21: Employed population by sex, branch of economic activity, and urban/rural area, February 2017	125
Table 22: Employed population by sex, branch of economic activity and level of educational attainment, February 2017	127
Table 23: Employed population by sex, status in employment, and urban/rural area, February 2017	130

Table 24: Employed population by sex, hours usually worked per week at all jobs, and urban/rural area, February 2017	130
Table 25: Employees by sex, duration of employment contract at main job and urban /rural area, February 2017	131
Table 26: Employed population by sex, formal/informal sector employment, status in employment at main job and urban/rural area, February 2017	132
Table 27: Formal and informal employment by sex, branch of economic activity, February 2017	134
Table 28: Formal and informal Sector by sex, branch of economic activity, February 2017 ...	135
Table 29: Average number of hours usually worked per week at main job by sex, branch of economic activity, urban/rural area February 2017	136
Table 30: Average monthly cash income from employment of employees at main job by sex, age group, level of educational attainment, occupation group and urban/rural area, February 2017	137
Table 31: Median monthly cash income from employment of employees at main job by sex, age group, level of educational attainment, occupation group and urban/rural area, February 2017	139
Table 32: Size distribution of monthly cash income from employment of employees at main job by sex and urban/rural area, February 2017	140
Table 33: Median/Mean cash income from employment of employees at main job by Quintiles sex and urban/rural area, February 2017	141
Table 34: Youth and Young Population by sex, and residential area, February 2017	142
Table 35: Young population 16–30 years old by sex, level of educational attainment, labour force status and urban/rural area, February 2017	142
Table 36: Youth Unemployed by sex, duration of seeking employment, and urban/rural area, February 2017	144
Table 37: Young Unemployed by sex, duration of seeking employment, and urban/rural area, February 2017	144
Table 38: Youth not in employment and not currently in education or training by sex, age group, and urban/rural area, February 2017	145
Table 39: Unemployed population by sex, broad age group and urban/rural area, February 2017	145
Table 40: Unemployed population by sex, level of educational, and urban/rural area, February 2017	146
Table 41: Unemployed population(who looked for a job) by sex, method of seeking employment, and urban/rural area, February 2017	146
Table 42: Unemployed population (who looked for a job) by sex, duration of seeking employment, and urban/rural area, February 2017	147
Table 43: Time related under employment by age group sex and area of residence	148
Table 44: Time-related underemployed persons by sex, main branch of economic activity and urban-rural areas	148
Table 45: Population outside the labour force by sex, degree of labour market attachment, and urban/rural area, February 2017	149

Table 46: Population outside the labor force by sex, main source of livelihood, and urban/rural area, February 2017	150
Table 47: Working age population, by reported status of non-employment	151
Table 48: Average time spent in own-use production work by sex, type of own-use production and urban/rural area, February 2017	151
Table 49: Average time spent per week on own-use production of goods of working age population by sex, age group, employment status, and urban/rural area, February 2017	153
Table 50: Average time spent per week on own-use provision of services of working age population by sex, age group and urban/rural area, February 2017	153
Table 51: Children 5-17 years old by sex, school attendance, current work status and urban/rural area, February 2017	154
Table 52: Migrants by sex, age group, urban/rural area and place of residence prior to migration, RLFS February 2017	155
Table 53: Internal and international migrants by labour force status, sex, urban/rural area, RLFS February 2017	157
Table 54: Internal and international migrants by labour force status and main reason for migration, RLFS February 2017	158
Table 55: Migrant workers by sex, urban/rural area, prior place of residence and branch of economic activity, RLFS February 2017	160
Table 56: Summary labour force indicators, RLFS February 2017(City of Kigali).....	161
Table 57: Summary labour force indicators, RLFS February 2017(South province).....	162
Table 58: Summary labour force indicators, RLFS February 2017(West province).....	163
Table 59: Summary labour force indicators, RLFS February 2017(North province).....	164
Table 60: Summary labour force indicators, RLFS February 2017(East province)	165
Table 61: Employment by sex, urban/rural area and branch of economic activity, RLFS February 2017(City of Kigali).....	166
Table 62: Employment by sex, urban/rural area and branch of economic activity, RLFS February 2017(South province).....	167
Table 63: Employment by sex, urban/rural area and branch of economic activity, RLFS February 2017(West province).....	168
Table 64: Employment by sex, urban/rural area and branch of economic activity, RLFS February 2017(North province).....	169
Table 65: Employment by sex, urban/rural area and branch of economic activity, RLFS February 2017(East province)	170
Table 66: Labour market indicators and educational type (general and Technical).....	171
Table 67: Labour market indicators by attained level of education by those who completed TVET	172

List of Figures

Figure 1. 1: Labour force participation rate, Employment-to-population ratio and Unemployment rate. New definition versus Old definition	5
Figure 1.2: Regional variations of Labour force participation rate, Employment-to-population ratio and Unemployment rate	6
Figure 1.3: Seasonal variations of employment, unemployment and labour force participation ('000).....	7
Figure 2. 1: Labour force and subsistence foodstuff producers.....	3
Figure 2. 2: Demographic and educational characteristics of labour force versus subsistence foodstuff producers.....	10
Figure 2. 3: Employment and own-use production of goods.....	11
Figure 3. 1: Labour force participation rate by sex and age group	13
Figure 3. 2: Educational attainment of the labour force	14
Figure 3. 3 Distribution of labour force by education attainment among young and adult population	14
Figure 4. 1: Status in employment at main job	15
Figure 4. 2: Share of work force by broad branch of economic activity	18
Figure 4. 3: Top twelve branches of economic activity of employed persons at main job	18
Figure 4. 4: Top twelve occupations of employed persons at main job	20
Figure 4. 5: Usual and actual hours of work of employed persons at all jobs	25
Figure 4. 6: Average hourly cash income from employment of employees at main job by broad branch of economic activity (RWF per hour)	27
Figure 5. 1: Unemployment rate by level of educational attainment.....	29
Figure 5. 2: Composition of labour underutilization	31
Figure 5. 3: Composite measure of labour underutilization by urban/rural area, sex, age group and educational attainment	32
Figure 6. 1: Persons outside the labour force by self-reported main status	35
Figure 6. 2: Past work experience and reason for stopping last employment of persons outside the labour force.....	37
Figure 7. 1: Labour force participation by marital status and sex	39
Figure 8. 1: Youth (16-30 years old) labour force participation rate and unemployment rate by educational attainment.....	43
Figure 9. 1: Reported benefits after completing vocational training	49
Figure 10.1: Child work rate by age group	52

Figure 10.2: Working children by type of work	54
Figure 10.3: Working children by sex	55
Figure 10.4: Percentage distribution of working children by sex and type of work.....	55
Figure 10.5: School and work among children (5-17 years old)	56
Figure 11. 1: Proportion of working age population who are own use producers by sex	58
Figure 11. 2: Average number of hours spent in own use production activities by type and sex	59
Figure 11. 3: Proportion of working age population engaged in Own use production of services by residential area and activity	60
Figure 11. 4: Percentage distribution of the use of household production	61
Figure 11. 5: Participation of paid workers in subsistence agriculture	62
Figure 12. 1: Size of the migrant and migrant workers populations.....	63
Figure 12. 2: Labour force status of internal and international migrants.....	65
Figure 12. 3: Employed migrant workers by branch of economic activity.	67
Figure 13.1:Demographic characteristics and work status of persons with disabilities relative to the general population.	71
Figure 13.2:Main labour force indicators: Working age persons with disabilities versus working age population at large.	72

Introduction

The National Institute of Statistics of Rwanda, as the coordinator of the National Statistics System (NSS), has launched a regular labour force survey programme (LFS) starting in 2016.¹ The survey programme is part of the second National Strategy for the Development Statistics (NSDS2) covering the period 2014/15 to 2018/19.² It is conducted in partnership with the Ministry of Public Service and Labour (MIFOTRA), and with technical support from the Rwanda-German Development Cooperation as part of its Technical Cooperation program GIZ Eco-Emploi.

The main objective of the survey programme is to monitor the trend of employment and labour underutilization including unemployment at the national and province levels, and to the extent possible also at district level. The survey programme is also meant to provide relevant data for the design, implementation and evaluation of economic and social policies related to employment creation, income generation, skills development including vocational education and training, and related decent work policies. It is further designed to provide data on particular categories of persons such as women and youth and on required data for other bodies of statistics such as volume of work and labour input for national production accounts and calculation of labour productivity.

The survey programme began with a pilot survey conducted in February 2016. The principal objective of the pilot LFS was a full rehearsal of the operations of a national labour force survey including sample selection, listing of sample enumeration areas, household interviewing, data processing and report writing. The first round of the full-fledge Rwanda labour force survey was conducted in August 2016.

The analysis of the LFS 2016 results is presented in the main body of the report organized into 13 Chapters. Chapter 1 presents the main results at the national level and comparisons with the past surveys. Chapter 2 examines the age structure of the population, the labour force and its relation to the subsistence foodstuff producers. Chapter 3 examines the labour force participation of the working age population. Chapter 4 presents the data on employment and its composition in terms of status in employment, branch of economic activity, occupation, informal sector and informal employment, and working time and income from employment.

Chapter 5 deals with unemployment and other components of labour underutilization (time-related underemployment and potential labour force) and compares the unemployment rate with broader indicators of labour underutilization. Chapter 6 presents the data on the characteristics of the population outside the labour force, including main source of livelihood and past work experience. The other seven chapters examine the labour market situation of particular categories of workers, namely, women (Chapter 7), young persons (Chapter 8), participants in training programmes (Chapter 9), own-use producers (Chapter 10), working children (Chapter

¹ NISR, *Labour Statistics Framework of Rwanda*, National Institute of Statistics of Rwanda Kigali, 2014.

² NISR, *National Strategy for the Development of Statistics, 2014/15-2018/19*, National Institute of Statistics of Rwanda, Kigali, September 2014.

11), migrant workers (Chapter 12) , workers with disabilities (Chapter 13), and District level results (chapter 14).

The survey methodology and data quality is documented in Annexes A and B. The main concepts and definitions used in the survey are described in Annex A, including the working age population, employment, unemployment and other components of labour underutilization, and own-use producers. The definitions of other concepts are presented in the body of the report including hours actually or usually worked, status in employment, informal sector and informal employment. Annex B describes the survey design and quality of the data, in particular, sampling errors, coverage errors, non-responses and response errors. The annex also describes the questionnaire design and issues experienced during the field operations. The statistical tables are presented in Annex C.

A specimen of the survey questionnaire is reproduced in Annex D and the list of officials involved in the survey design and operations is given in Annex E.

Chapter 1. Main labour force indicators

The main results of the LFS February 2017 are shown in Table 1.1 below. According to these results, among the 6,709,000 persons 16 years old and over living in regular households, about 3,626,000 persons were in the labour force, either employed (3,019,000) or unemployed (607,000). The remainder 3,084,000 persons were outside the labour force including some 1,766,000 persons engaged wholly or mostly in subsistence foodstuff production, not classified as employment according to the 2013 new international standards on statistics of work, employment and labour underutilization.

The national labour force participation rate, that is the percentage of the working age population engaged in the labour force, was 54.0 percent, indicating that slightly more than half of the working age population was either working for pay or profit or seeking employment. The male labour force participation rate was 62.7 percent, higher than the female rate of 46.4 percent. At the same time, the labour force participation rate in urban areas (64.5 percent) was higher than the rate in rural areas (50.8 percent).

Table 1.1: Main labour force indicators, February 2017

Indicators ('000)	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Population 16 years old and over	6,709	3,138	3,571	1,573	5,136	3,578	3,131
Labour force	3,626	1,967	1,658	1,015	2,611	1,812	1,813
- Employed	3,019	1,651	1,367	832	2,187	1,447	1,571
- Unemployed	607	316	291	183	424	365	242
Outside labour force	3,084	1,170	1,913	558	2,525	1,766	1,318
Labour underutilization	2,926	1,268	1,657	533	2,393	2,059	867
- Unemployed	607	316	291	183	424	365	242
- Time-related underemployed	904	432	472	109	795	625	279
- Potential labour force	1,415	520	894	241	1,174	1,069	346
Labour force participation rate	54,0	62,7	46,4	64,5	50,8	50,6	57,9
Employment-to-population ratio	45,0	52,6	38,3	52,9	42,6	40,4	50,2
Time-related underemployment rate	29.9%	26.1%	34.5%	13.1%	36.3%	43.2%	17.7%
LU1 - Unemployment rate	16,7	16,1	17,5	18,1	16,2	20,1	13,3
LU2 - Combined rate of unemployment and time-related underemployment	41.7%	38.0%	46.0%	28.8%	46.7%	54.6%	28.7%
LU3 - Combined rate of unemployment and potential labour force	40.1%	33.6%	46.4%	33.8%	42.2%	49.8%	27.2%
LU4 - Composite measure of labour-underutilization	58,0	51,0	64,9	42,5	63,2	71,5	40,1

Source: RLFS February 2017

The employment-to-population ratio, i.e., the percentage of the working age population who is employed, is an indicator of the performance of the national economy in providing employment to its growing population. The ratio was 45.0 percent according to the survey results. Similar to the labour force participation rate, the employment-to-population ratio was higher among men than women, and higher in urban areas than in rural areas.

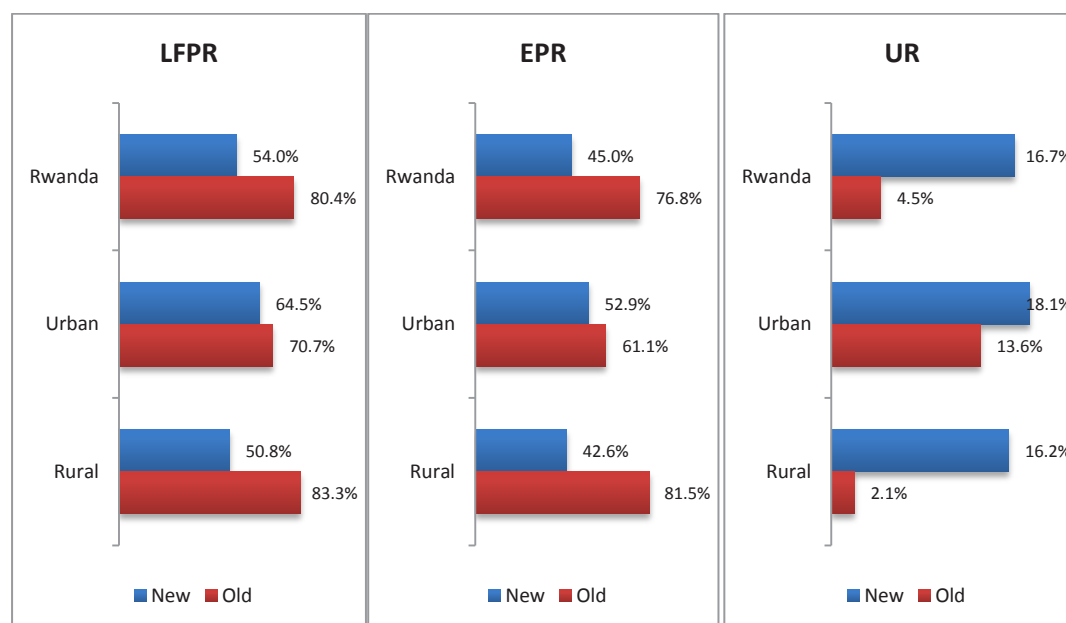
The unemployment rate represents the percentage of the labour force that is unemployed. The rate shown in Table 1.1 as LU1 stood at 16.7 percent, indicating that roughly for six persons in labour force there was one person unemployed. The female unemployment rate (17.5 percent) was slightly higher than the male rate (16.1 percent) and that the unemployment rate in urban areas (18.1 percent) was higher than the one in rural areas (16.2 percent).

The unemployment rate is not the only indicator of the unmet needs for employment. Other indicators combine unemployment and time-related underemployment and potential labour force. The potential labour force includes persons who were available for employment but were not seeking employment during the reference period as well as persons who were indeed seeking employment during the reference period but were not currently available for work.

According to the LFS results, the combined rate of unemployment and time-related underemployment (LU2) was 41.7 percent more than the unemployment rate. The combined rate of unemployment and potential labour force (LU3) was 40.1 percent. The composite measure of labour underutilization (LU4) that combines unemployment, time-related underemployment and potential labour force was 58.0 percent indicating that more than half of the labour force was affected by some form of labour underutilization. In general, labour underutilization affected female workers more than male workers, and rural areas more than urban areas.

The results presented here under the new definitions in line with the 2013 international standards differ considerably from those that would have been obtained under the old definitions used in household surveys and population censuses of Rwanda, in line with the 1982 international standards. Figure 1.1 compares the main labour market indicators under the new and old definitions. The labour force participation rate under the new definition, 54.0 percent, is significantly lower than the rate under the old definition, 80.4 percent. Even more pronounced is the difference between the employment-to-population ratio, 45.0 percent under the new definition, and 76.8 percent under the old definition. By contrast, the unemployment rate is considerably higher under the new definition, 16.7 percent, than the rate under the old definition, 4.5 percent.

Figure 1.1: Labour force participation rate, Employment-to-population ratio and Unemployment rate. New definition versus Old definition



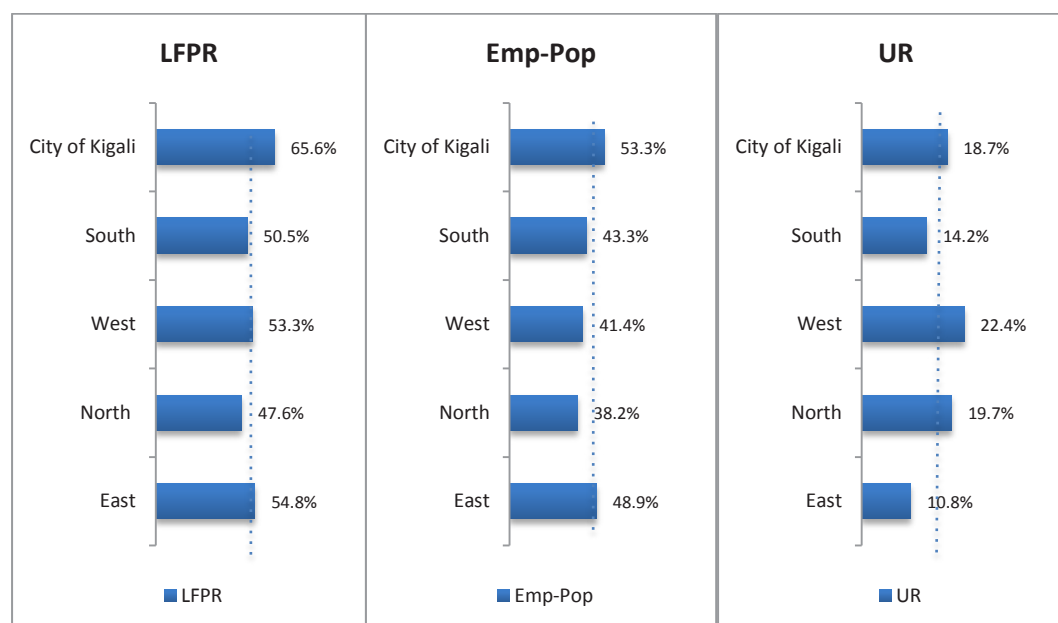
Source: RLFS February 2017

The main reason explaining the difference is the statistical treatment of subsistence foodstuff producers in the definition of employment. According to the new international standards, employment includes only persons working for pay or profit, excluding persons engaged wholly or mostly in subsistence foodstuff production. The effect of this is a lower count of the number of employed and a higher count of the number of unemployed because some of the subsistence foodstuff producers would be looking and available for work for pay or profit and thus be classified as unemployed.

It can be observed on Figure 1.1 that the differences between the labour market indicators under the new and old definitions are much less pronounced in urban areas than in rural areas where subsistence foodstuff production is vastly more widespread. The difference between the labour force participation rate under the old and new definitions in urban areas is 6.2 percentage points while it is 32.5 percentage points in rural areas. The difference between the employment-to-population ratio under the old and new definitions in urban areas is 8.2 percentage points while it is 38.9 percentage points in rural areas. The difference between the unemployment rate under the old and new definitions in urban areas is only 4.5 percentage points while the gap is much wider at 14.1 percentage points in rural areas.

Labour market situation varies from one part of the country to another. Figure 1.2 shows the main labour force indicators for the five regions of Rwanda. More detail regional data are presented in the Statistical Annex C, and District level results are discussed in chapter 14. It can be observed that the labour force participation rate in February 2017 was considerably higher than the national average in the City of Kigali (65.6 percent). The rate was about average in the South (50.5 percent), West (53.3 percent), and East (54.8 per cent), and much lower in the North (47.6 percent).

Figure 1.2: Regional variations of Labour force participation rate, Employment-to-population ratio and Unemployment rate



Source: LFS February 2017.

Note: Dotted line represents the national average of corresponding indicator.

A similar pattern may be observed with respect to the employment-to-population ratio. It shows that the rate was higher than the national average in the City of Kigali (53.3 per cent) and in the East (48.9 per cent), and about average in the South (43.3 per cent) and in the West (41.4 per cent), but significantly lower in the North (38.7 per cent).

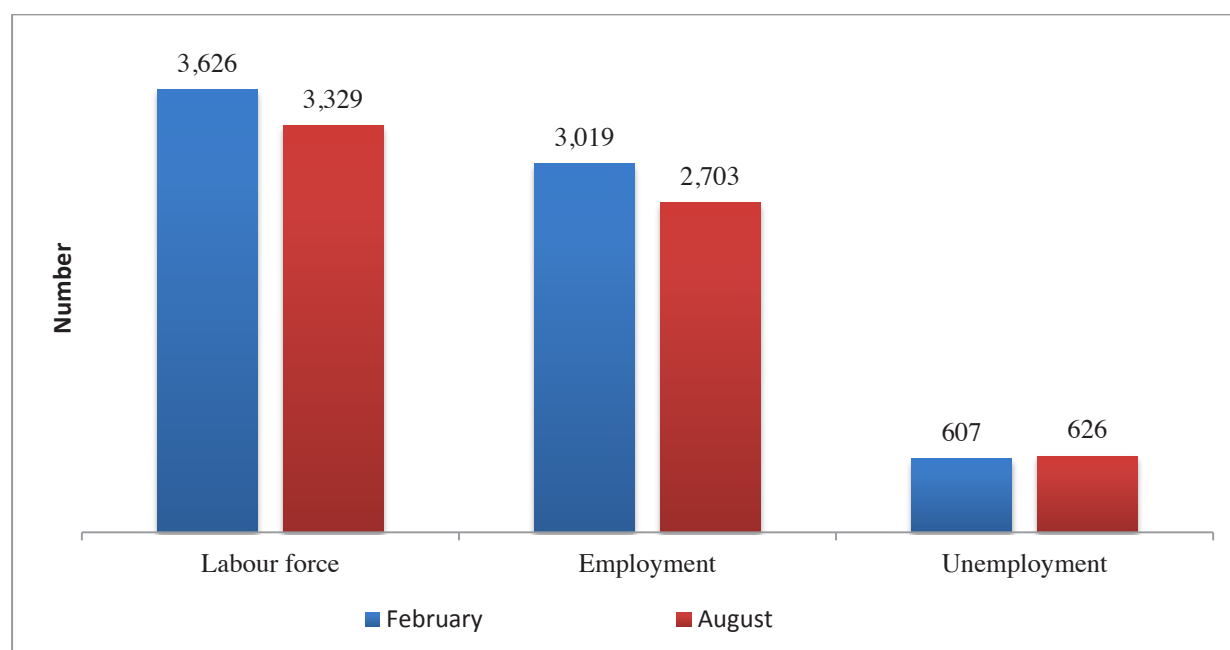
The unemployment rate shows an almost mirror image though not exactly, lowest in the East (10.8 per cent), about average in the South (14.2 per cent) and above average in the City of Kigali (18.7 per cent), the North (19.7 per cent) and highest in the West (22.4 per cent).

Overall, the regional pattern that emerges indicates significantly higher labour market activity in the City of Kigali in the form of employment work and in the West in the form of unemployment. The North shows the lowest labour market activity both in the form of employment work and unemployment, while East and South are about average. These results are essentially in line with the regional pattern of subsistence foodstuff production. Where there are relatively more subsistence foodstuff producers, employment is comparatively lower and vice versa where there are relatively less subsistence foodstuff producers, employment tends to be higher. The relationship with unemployment is however more complex.

The labour market of Rwanda is not only subject to regional variations in different parts of the country but also subject to seasonal variations over different periods of the year, particularly, the high and low season of agricultural activities. An idea of the effect of seasonality of the labour market may be obtained by comparing the results of the LFS February 2017 with those of LFS conducted in August 2016.

Figure 1.3 presents the main labour force aggregates obtained from the two surveys. According to these results, total employment shows significant change from August 2016 to February 2017 at about 315,000. Unemployment, however, was significantly higher in August 2016 (626,000) compared to February 2017 (607,000), resulting to a slightly higher labour force participation in February 2017 (3,626,000) as opposed to August 2016(3,329,000).

Figure 1.3: Seasonal variations of employment, unemployment and labour force participation ('000)



Source: RLFS August 2016 and RLFS February 2017

The main factor explaining the seasonal variations in the main labour force aggregates is the change in the number of subsistence foodstuff producers during the high and low season. In August 2016, corresponding to the low season of agriculture activity, the total number of subsistence foodstuff producers was about 3,256,000, while the number in February 2017, corresponding to the high season of agriculture activity, was 3,578,000, i.e., an increase of almost 322,000. Some of the subsistence foodstuff producers who were jobseekers got employment work in agriculture activity during the high-season, and as a result raising the level of employment. This process may have involved 33,000 workers, explaining the decrease of the total number of unemployed persons from 626,000 in August 2016 to 607,000 in February 2017.

Chapter 2. Population, labour force and subsistence foodstuff producers

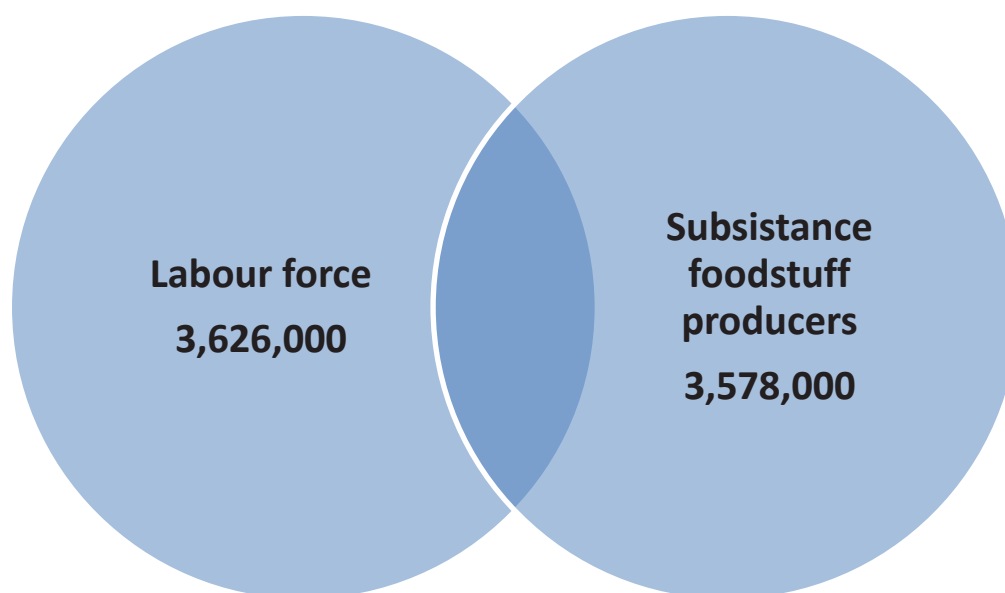
The population constitutes the human capital of a nation and defines its potential labour supply. From an economic point of view, the working population is a factor of production and its aptitude and skills level contribute to the productivity of the national economy. From a social point of view, different categories of the population form social groups of particular concern and meeting their needs are major challenges faced by public institutions and society at large.

The results of the LFS February 2017 show that the working age population 16 years old and over includes 6,709,000 persons of whom about 3,626,000 are in the labour force.

This means that slightly more than a half of the working age population is participating in the labour force; many others are engaged in subsistence foodstuff production not counted as employment according to the new international standards on statistics of work, employment, and labour underutilization.

Figure 2.1 shows the size of the labour force relative to the size of the subsistence foodstuff producers and the overlap between them. It can be observed that there are more persons in labour force (3,626,000) than in subsistence foodstuff producers (3,578,000). The overlap (1,812,000) represents the subsistence foodstuff producers who were engaged in an employment activity for pay or profit (1,447,000) or were seeking and available for employment during the reference period of the survey (365,000).

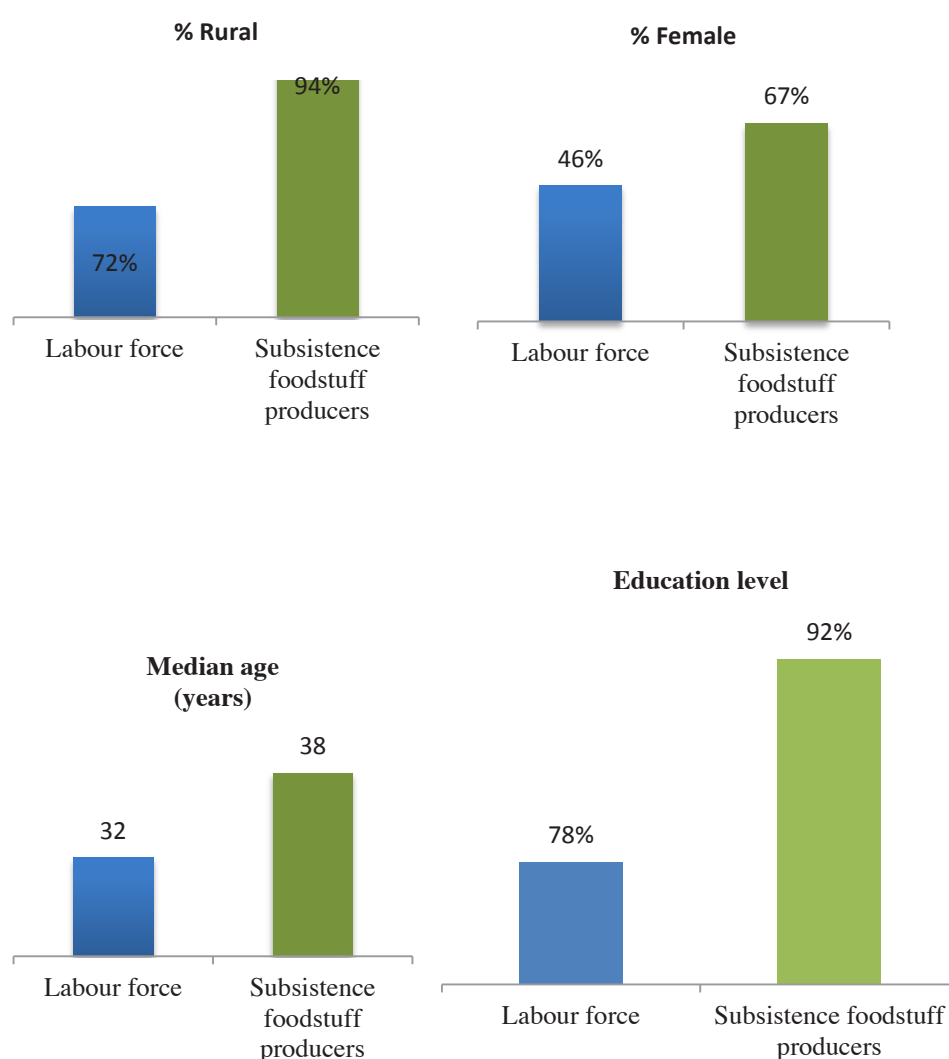
Figure 2.1: Labour force and subsistence foodstuff producers.



Source: RLFS February 2017

Figure 2.2 compares some of the demographic and educational characteristics of the subsistence foodstuff producers outside labour force with those of the labour force. In general, subsistence foodstuff producers were virtually all living in rural areas (94 percent) while the labour force was 72 percent rural and 28 percent urban. The majority of subsistence foodstuff producers were women (67 percent) while the share of women in the labour force was 46 percent. Subsistence foodstuff producers were generally older (median age 38 years old) and less educated (92 percent with primary education or below) than persons in the labour force (median age 32 years old and 78 percent with primary education or below).

Figure 2.2: Demographic and educational characteristics of labour force versus subsistence foodstuff producers.

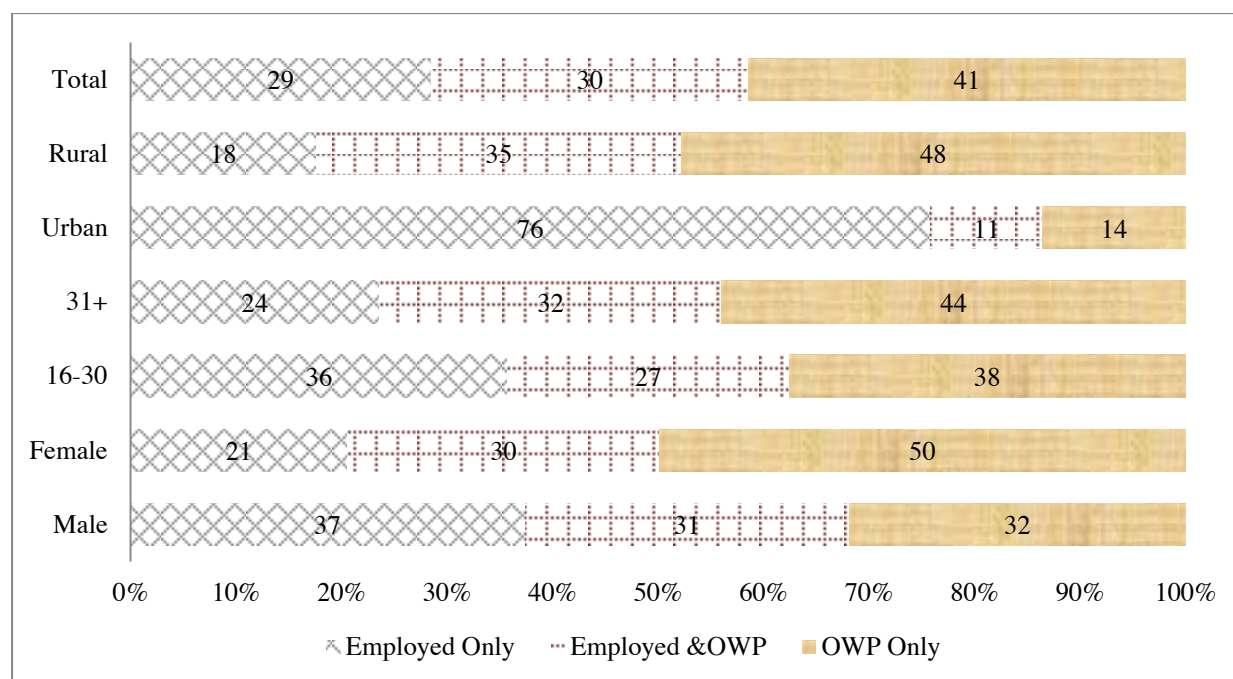


Source: LFS February 2017

The following figure shows the combination of employment work and own-use production of goods (Foodstuff production) among different categories of persons who were engaged in one or both of these forms of work. Overall, 29 percent were engaged only in employment work and 41 percent only in own-use production of goods. The remainder 30 percent was combining

employment work and own-use production of goods during the specified reference period. It should be mentioned that employment work were measured with reference to the last seven days while the reference period for the measurement of own-use production of goods was four weeks prior to the survey date.

Figure 2.3: Employment and own-use production of good



Source: LFS February 2017

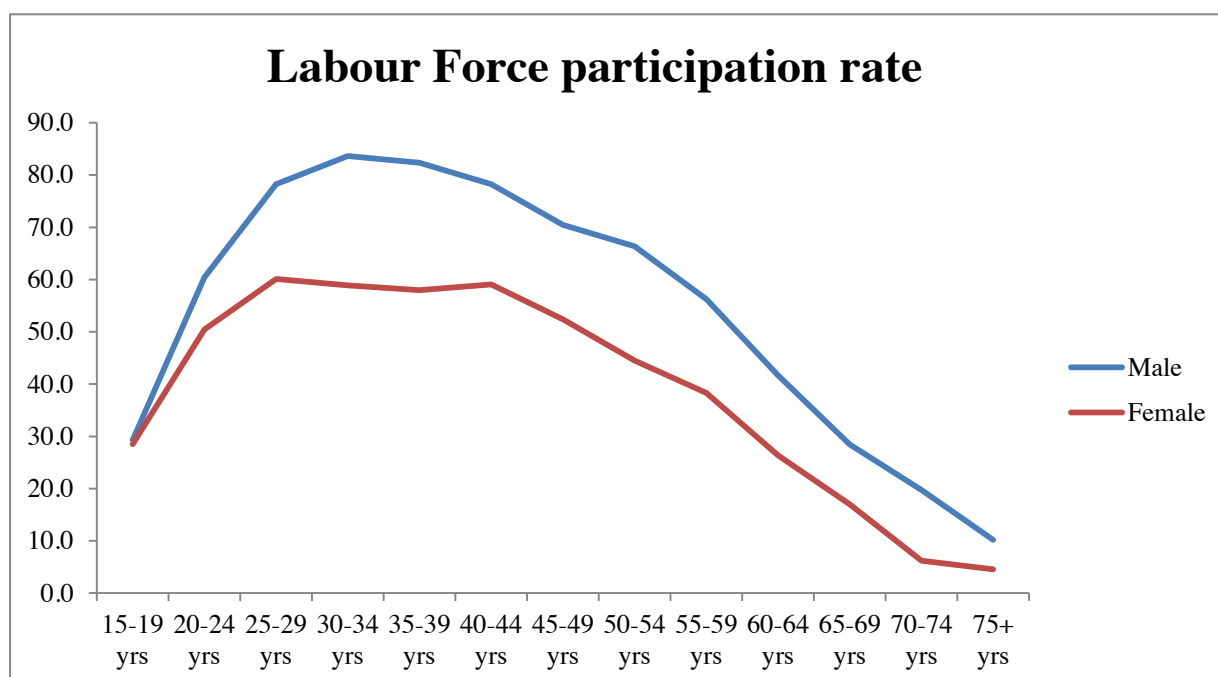
In terms of categories of persons, the data show that sole engagement in own-use production of goods was mostly among women, older persons 31 years old and over, and in rural areas. In contrast, engagement in employment work only was mostly in Urban area, among men, and young persons 16 to 30 years old. The relative size of persons engaged in both employment work and own-use production of goods was almost the same for all categories of persons and varies between 27 to 35 percent, except for persons living in urban areas where the percentage of persons combining the two forms of work was relatively low at about 11 percent.

Chapter 3. Labour force participation

The labour force participation rate, i.e., the ratio of the labour forces to the working age population expressed in percentage terms, is an indicator of the level of labour market activity. It measures the extent of the working age population who is in the labour force. The breakdown of the labour force participation rate by sex and age group gives a profile of the labour force participation as shown in Figure 3.1.

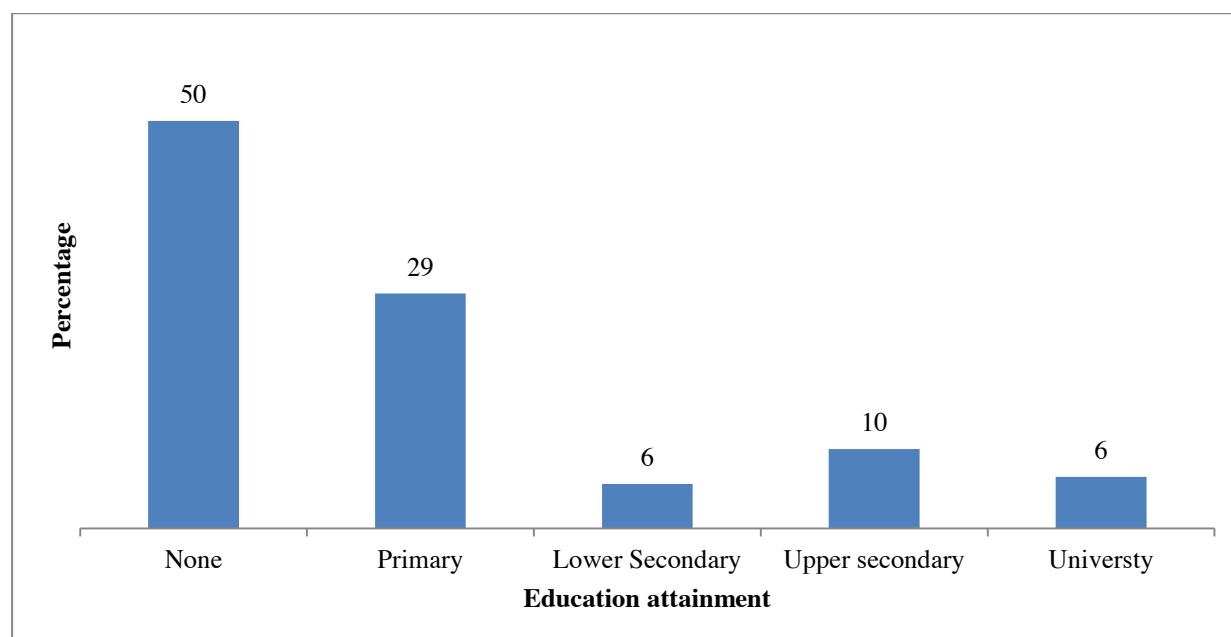
Like most national rates, the Rwanda labour force participation rate has an inverted-U shape. The male curve is above the female curve, reflecting a higher labour force participation of male at virtually all age groups. For each sex, the curve increases for young people when they leave school and enter the labour market. It reaches a peak in the age group 30-34 years for men and in the age group 25-29 for women. The fluctuation of the labour force participation rate among females aged between 25 and 40 years old may be attributable to exit and reentering the labour market due to marital and child bearing reasons. After 44 years old, the labour force participation rate decreases sharply for both men and women, as people leave and retire from the labour market at older ages.

Figure 3.1: Labour force participation rate by sex and age group



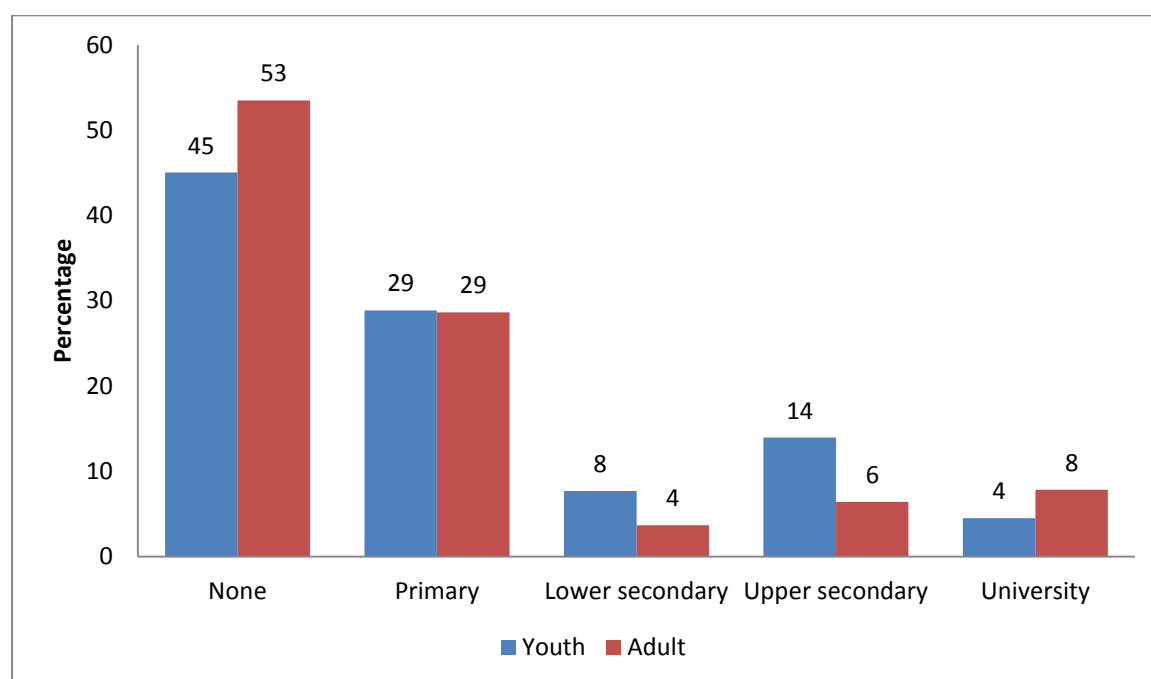
Source: LFS August 2016

The skill level of the labour force may be assessed by the educational attainment of the labour force participants. Figure 3.2 presents the distribution of the labour force by educational attainment. The level of educational attainment of the majority of the labour force (79 percent) was primary education or below. The share of the labour force with secondary education (lower and upper) was about 17 percent and the share with tertiary education was about 4%.

Figure 3.2: Educational attainment of the labour force

Source: LFS February 2017

The educational attainment of the youth population 16 to 30 years old in the labour force was higher than the overall labour force. About 26 percent of the youth labour force has lower secondary or higher education against 22 percent for the labour force as a whole and 18 percent for adults. The percentage of youth with no educational attained seems is lower than their adult counterpart

Figure 3.3 Distribution of labour force by education attainment among young and adult population

Source: LFS February 2017

Chapter 4. Employment

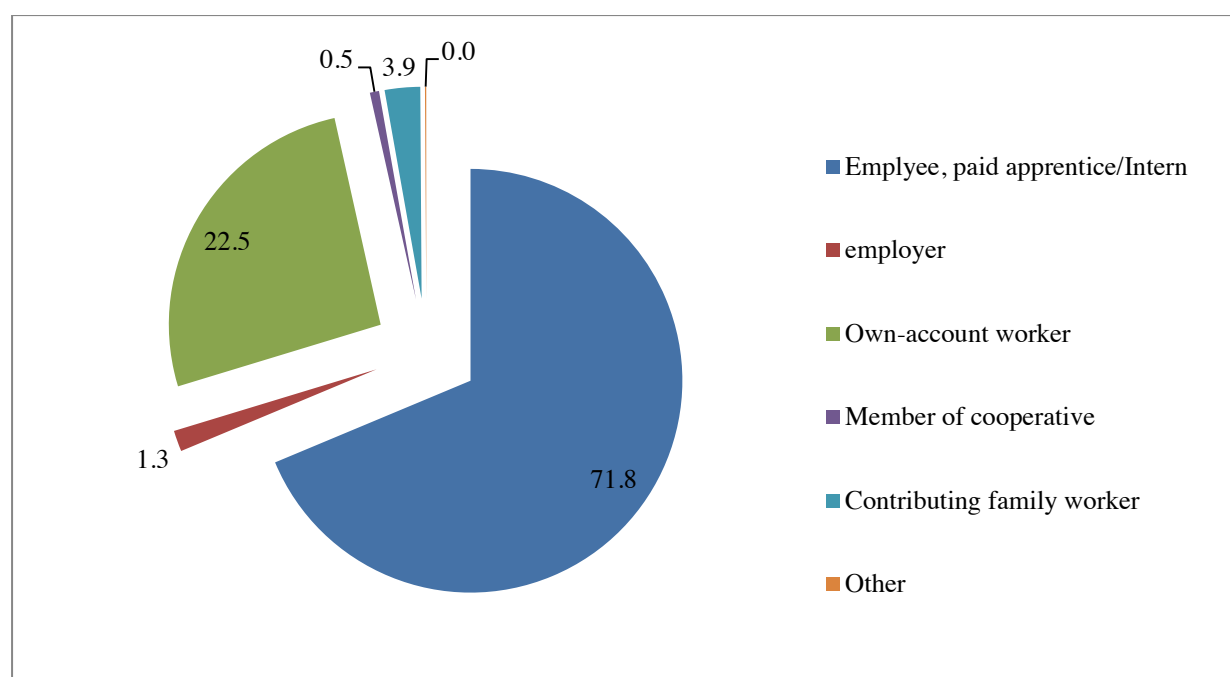
Aggregate employment generally increases with growing population. Therefore, the ratio of employment to the working age population is an important indicator of the capacity of the economy to provide employment to a growing population. A decline in the employment-to-population ratio is often regarded as an indicator of economic slowdown and a decline in total employment as an indicator of a more severe economic downturn. In February 2017, the employment-to-population ratio was 45.0 percent.

Status in employment classifies jobs held by persons at a given point of time with respect to the type of explicit or implicit contract of employment of the person with other persons or organizations. It may refer to the current job or jobs of an employed person or the last job of an unemployed person who had past work experience. The International Standard Classification of Status in Employment (ICSE-1993) identifies five main categories of persons with respect to their status in employment:³

- Employees: Persons working in “paid employment jobs”, i.e., holding explicit (written or oral) or implicit employment contract with remuneration not directly dependent upon the revenue of the unit for which they work. Remuneration could be in the form of wages or salaries, commission from sales, piece-rates, bonuses, or in-kind payments such as food, housing or training.
- Employers: Persons working on own-account or with one or a few partners in “self employment jobs”, i.e., (a) remuneration is directly dependent on the profits (or potential for profits) derived from the goods and services produced or for own consumption, and (b) engaging one or more “employees,” on a continuous basis.
- Own-account workers: Persons working on own-account or with one or a few partners in a “self employment job”, not engaging any “employees,” on a continuous basis.
- Contributing family workers: Persons working in a market-oriented establishment operated by a household member, who cannot be regarded as partner, in a “self employment job”, not engaging any “employee” on a continuous basis.
- Members of producers’ cooperatives: Persons working in a cooperative producing goods and services, in a “self employment job”, not engaging any “employee” on a continuous basis

Figure 4.1 shows the composition of the employed population by status in employment in main job according to the February, 2017 LFS. More than two-third of the employed population (71.8 percent) were employees or paid apprentices or trainees. The share of own-account workers was (22.5 percent), followed by contributing family workers (3.9 percent), employers (1.3 percent) and members of producers’ cooperatives (0.5%).

³ILO, *International Classification of Status in Employment, ICSE-93*, Fifteenth International Conference of Labour Statisticians, Geneva, <http://laborsta.ilo.org>.

Figure 4.1: Status in employment at main job

Source: LFS February 2017

The data disaggregated by gender show that there is no significant difference between males and females who were employed in dependent jobs as employees. The percentage of female employed as employees is 71.9 percent against 71.6 percent among males. But, the percentage of females employed in dependent jobs as contributing family workers was higher 6.8 percent against 1.5 percent among males.

The distribution of the employed population by sector of employment reveals that the majority of employment was in private sector (84.8 percent) or in household activities (6.3 percent). The share of employment in the public sector was about 6 percent and less than 1 percent in the mixed sector. The remaining part of the employed population was engaged in the cooperative sector (1 percent) or in international or local non-governmental organizations (less than 1 percent) or other institutions (less than 1 percent).

4.1. Branches of economic activity and occupations

Branch of economic activity refers to the activity of the establishment in which an employed person worked during the reference period. An establishment may be a farm, a mine, a factory, a workshop, a store, an office or a similar type of economic unit. It is important to distinguish enterprises from establishments. “Enterprise” is a broader concept than “establishment”. An enterprise is a legal entity (or group of legal entities) and may have a number of establishments with different economic activities and different locations.

Table 4.1 presents the distribution of the employed population by branch of economic activity in main job. The data show that agriculture employment was by far the most frequent branch of economic activity, comprising 45.9 percent of employment. The branch of economic activity with the next highest number of employed persons was trade (14.9 percent) followed by

construction (7.9 percent) and activities of households as employers of domestic personnel (7.1 percent). The other branches of economic activity comprised each less than five percent of total employment.

Table 4.1: Employed persons by branch of economic activity in main job

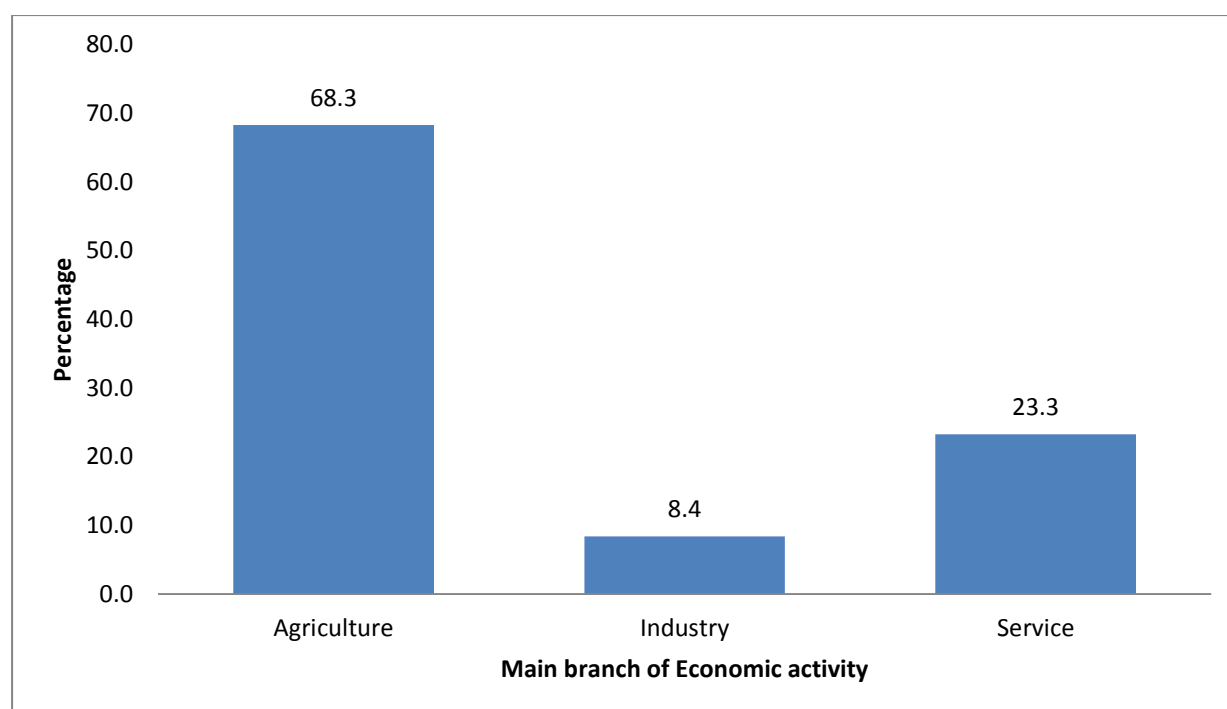
Branch of economic activity	Number	%
Total	3,018,532	100.0
Agriculture, forestry and fishing	1,385,421	45.9
Mining and quarrying	40,735	1.3
Manufacturing	137,201	4.5
Electricity, gas, steam and air conditioning supply	9,437	0.3
Water supply, sewerage and waste management	7,930	0.3
Construction	239,471	7.9
Wholesale, retail trade, repair of motor vehicles, motorcycles	451,178	14.9
Transportation and storage	131,077	4.3
Accommodation and food service activities	39,601	1.3
Information and communication	8,180	0.3
Financial and insurance activities	23,564	0.8
Real estate activities	3,449	0.1
Professional, scientific and technical activities	20,669	0.7
Administrative and support service activities	45,143	1.5
Public administration and defense	53,091	1.8
Education	106,087	3.5
Human health and social work activities	46,251	1.5
Arts, entertainment and recreation	6,427	0.2
Other service activities	44,275	1.5
Activities of households as employers	213,697	7.1
Activities of extraterritorial organizations and bodies	5,649	0.2

Source: LFS February 2017

A full account of agriculture activity requires the inclusion of subsistence foodstuff producers in the calculation.⁴ This means adding to agriculture employment (1,385,000), the number of workers engaged wholly in subsistence foodstuff production not already included in agriculture employment (estimated at 2,131,000 persons).

The result gives a total of 3,516,000 persons engaged in agriculture, representing 68.3 percent of total employment adjusted for subsistence foodstuff production and made comparable with past data. Figure 4.2 presents the composition of the work force by broad branch of economic activity.

⁴ In principle, a full account of the role of agriculture activities should also include agricultural employment in secondary jobs.

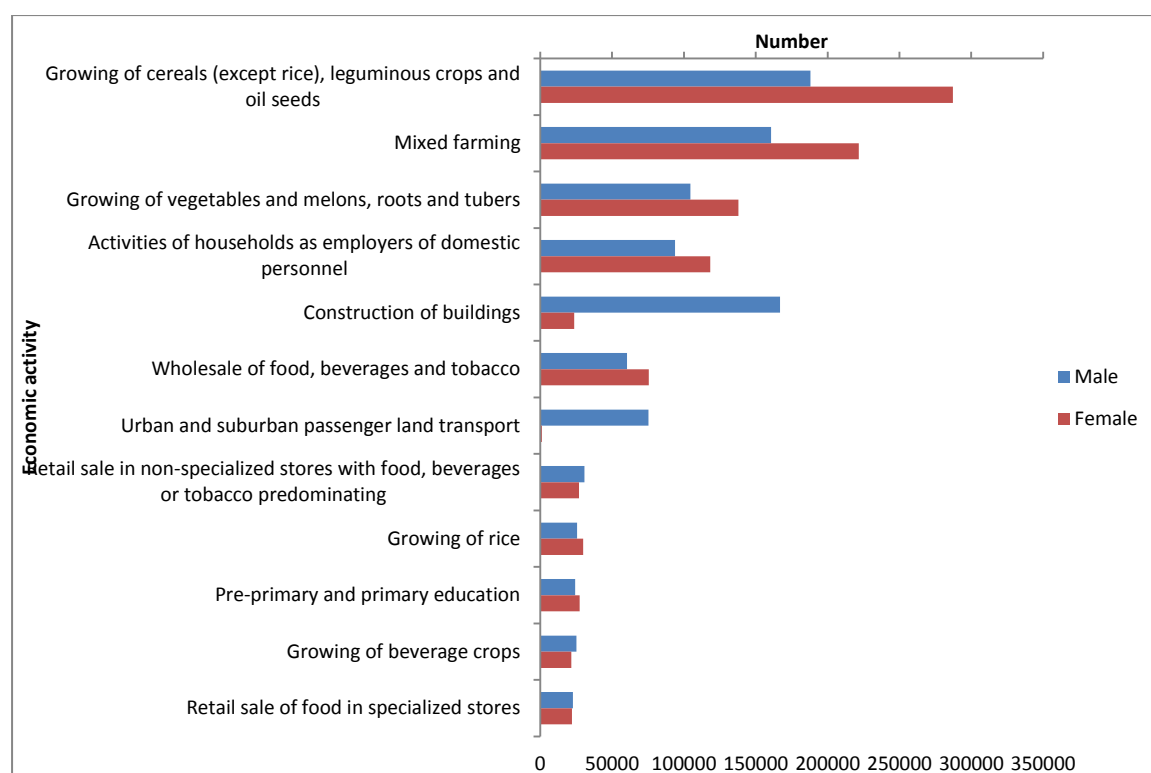
Figure 4.2: Share of work force by broad branch of economic activity

Source: LFS February 2017

Note: Agriculture includes forestry, fishing and animal husbandry. Industry includes Mining and quarrying, Manufacturing, Electricity, gas, steam and air conditioning supply, Water supply, sewerage and waste management, and Construction. Services cover the remaining branches of economic activity.

The results show that the share of agriculture workers was 68.3 percent in February 2017, the share of industry was 8.4 percent and that of services was 23.3 percent, agriculture sector remain high in employing many person.

Figure 4.3 shows the top twelve 4-digit branches of economic activity according to the LFS 2017. It is instructive to note that growing of cereals, mixed farming, growing of vegetables as well as households as employers of domestic personnel were branches of economic activity dominated by female workers, while construction of buildings, urban and suburban land transport as well as Retail sale in non-specialized stores were branches of economic activity dominated by male workers.

Figure 4.3: Top twelve branches of economic activity of employed persons at main job

Source: LFS February 2017

Similar data were obtained by occupation. Occupation refers to the kind of work done by a person employed (or the kind of work done previously or wanted if the person is unemployed), irrespective of the branch of economic activity or the status in employment of the person. Table 4.2 presents the distribution of the employed population by occupation category in the main job. The occupation category with the highest frequency (57.0 percent) was elementary occupations involving the performance of simple and routine tasks. It includes cleaners and helpers, agricultural, forestry and fishery labourers, labourers in mining, construction, manufacturing and transport, food preparation assistants, street and related sales and service workers and other elementary workers.

Table 4.2: Employed persons by occupation in main job

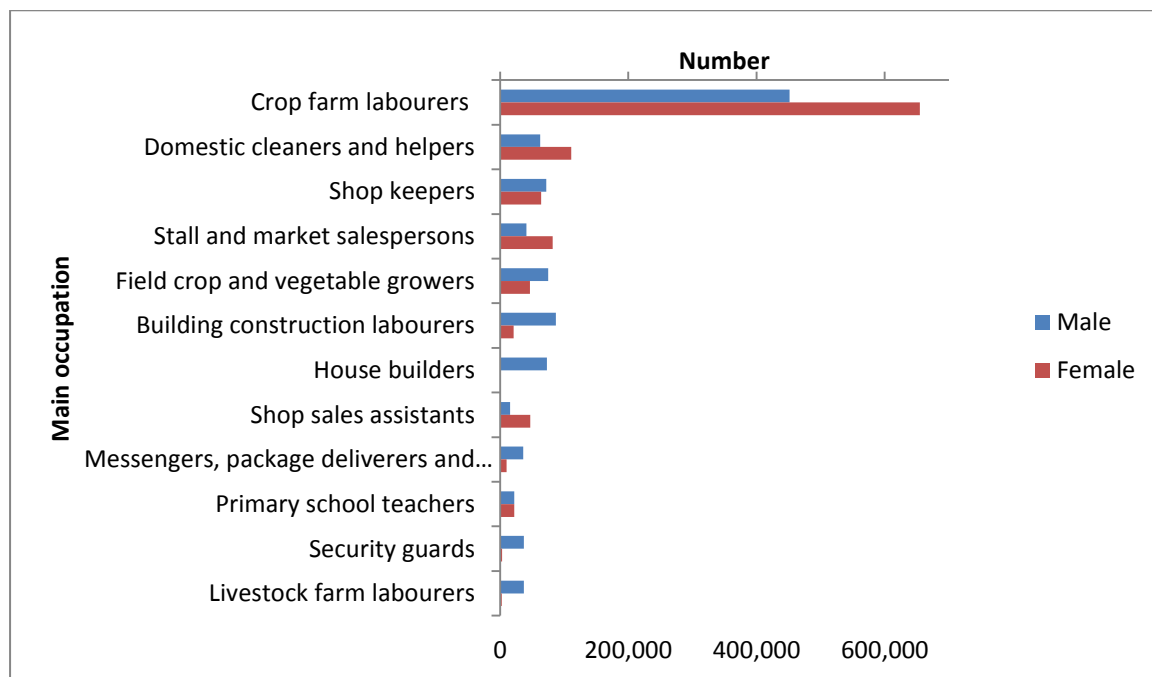
Major occupation group	Number	%
Total	3,018,532	100.0
Legislators, Managers and Senior Officials	38,617	1.3
Professionals	170,530	5.6
Technicians and Associate Professionals	47,681	1.6
Clerical Support Workers	30,652	1.0
Service and Sales Workers	518,946	17.2
Skilled Agricultural, Forestry and Fishery Workers	163,450	5.4
Craft and Related Trades Workers	248,444	8.2
Plant and Machine Operators and Assemblers	80,178	2.7
Elementary Occupations	1,720,033	57.0

Source: LFS February 2017

The occupation category with the second highest frequency was services and sales workers (17.2 percent), followed by craft and related trades workers (8.2 percent), Professionals (5.6 percent) and agricultural (5.4 percent). The other occupation categories each covered less than 5 percent of the employed population.

Figure 4.4 lists the top twelve 4-digit occupations and compares their frequency among male and female employed persons. It can be observed that there were more women than men employed as crop farm labourers, domestic cleaners and helpers, stall and market sales person and Shop sales assistants.

Figure 4.4: Top twelve occupations of employed persons at main job



Source: LFS February 2017

There were more men than women employed as Shop keepers, field crop and vegetable growers, house builders. House builders, security guards and livestock farm labourers were virtually all men.

The degree of segregation of occupations by sex may be measured with the occupational segregation index. It measures extent to which labour markets are separated into “male” and “female” occupations. The occupational segregation index (D) is commonly used as a proxy indicator for equality of opportunity in employment and occupation.⁵ It is defined by

$$D = \frac{1}{2} \sum_i \left| \frac{n_{Ai}}{n_A} - \frac{n_{Bi}}{n_B} \right|$$

where n_{Ai} and n_{Bi} are, respectively, the number of men and women in a given occupational i and n_A and n_B are, respectively, the total number of men and women in all occupations. The value of

⁵ILO, *Decent Work Indicators Concepts and definitions, ILO Manual (First version)*, May 2012, pp. 127-130.

the index ranges from zero to one, zero indicating no segregation and one indicating complete segregation. The index may be interpreted as the fraction of persons that need to change occupations to achieve zero segregation. According to the results of the February 2017 LFS, the segregation index was 0.16 indicating that 16 percent of the male and female employed population need to exchange occupations to eliminate occupational segregation in Rwanda.

Among the 326 distinct 4-digit occupations coded in the survey, seven contributed more than half of total index of occupational segregation in the country. There were:

Table 4.3: Four digits occupation with high segregation

Occupation	Number of employed persons	
	Male	Female
Crop farm labourers	451,490	654,823
House builders	73,329	1,279
Building construction labourers	87,150	21,157
Domestic cleaners and helpers	62,804	111,108
Stall and market salespersons	41,412	82,041
Hand and pedal vehicle drivers	38,796	0
Motorcycle drivers	36,875	0

Source: LFS February 2017

It can be observed from these data that building construction labourers, house builders, hand pedal vehicle drivers and motor cycle drivers were male-dominated occupations while crop farm labourers, stall and market salespersons and domestic cleaners and helpers were female dominated occupations. .

4.2. Informal sector and informal employment

The concept of informal sector is broadly characterized as unincorporated enterprises owned by households.⁶ In such economic units the fixed capital and other assets of the enterprise do not belong to the production units as such but to their owners, and may be used both for production and personal purposes. Production expenditure can hardly be separated from household expenditure. In practice, in the LFS, employment in the informal sector was defined as all persons 16 years of age and over who were engaged in unregistered private business enterprises that did not keep written record of accounts. Unregistration meant not registered with the Rwanda Revenue Authority or not paying PAYE/TPR. Domestic workers engaged by households were excluded from the classification of employment in the informal sector.

The results of the survey show that there were about 2,354,870 employed persons in the informal sector, corresponding to about 78.0 percent of total employment. The employed persons in the informal sector were mostly male (53.7 percent), employees (66.0 percent) or own-account workers (27.7 percent). Employment in the informal sector was mostly in

⁶ILO, *Resolution on the measurement of employment in the informal sector*, Fifteenth International Conference of Labour Statisticians (ICLS), Geneva, 1993.

agriculture (55.7 percent), followed by whole sale and retail trade; repair of motor vehicles and motorcycles (16.8 percent) and Construction (8.6 percent)

Parallel to the concept of employment in the informal sector, there is the separate concept of informal employment. While the concept of informal sector refers to production units as observation units, the concept of informal employment refers to jobs as observation units.⁷In the case of employees, informal employment is defined in terms of the employment relationship. A job held by an employee is considered informal, if the job does not entail social security contribution by the employer, and is not entitled of paid sick leave and paid annual leave.

In the case of own-account workers and employers, the informal employment status of the job is determined by the informal sector nature of the enterprise. Thus, own-account workers (without hired workers) operating an informal enterprise are classified as in informal employment. Similarly, employers (with hired workers) operating an informal enterprise are classified as in informal employment. All contributing family workers are classified as having informal employment, irrespective of whether they work in formal or informal sector enterprises.

According to the February, 2017 LFS, there were in total 2,747,901 persons with informal employment at main job, constituting almost 91 percent of total employment. Informal employment jobs were held mostly by male workers (53.8 percent).

The joint analysis of the informal or formal sector status of production units and the informal or formal status of jobs reveals the existence of a significant number of persons with informal employment engaged in the formal sector. Table 4.4 gives the cross-classification of the employed population according to informal or formal sector status of the production unit and informal or formal status of the job.

Table 4.4: Cross-classification of employment by informal or formal job and informal or formal production unit

Classification of production units	Classification of jobs		Total
	Formal employment	Informal employment	
Informal sector	28,515	2,326,355	2,354,870
Formal sector	241,560	241,073	482,633
Household	556	180,474	181,030
Total	270,631	2,747,901	3,018,532

Source: LFS February 2017

The results show that there were few people with formal employment working in the informal sector (28,515 persons). But, there were a significant number of persons with informal employment in the formal sector (241,073 persons). An example of this category of persons is an employee with short-term contract without social security contribution by the employer working in, a large private corporation.

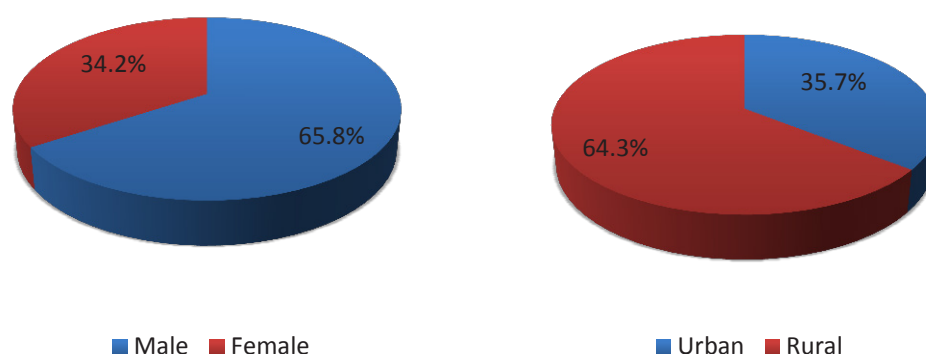
⁷ILO, *Guidelines concerning a statistical definition of informal employment*, Seventeenth International Conference of Labour Statisticians, Geneva, 2003.

- **Informal sector outside agriculture**

The share of the informal sector in non-agriculture employment (71 percent) is substantially lower than the corresponding share in total employment (83 percent). This is because there is relatively few agriculture holdings that are formal, most being informal this raising the share of the informal sector in total employment. Informal sector employment outside agriculture is almost equally composed of own-account workers (48.2 percent) and employees (44.7 percent), the remainder being contributing family workers (5.4 percent), employers (1.4 percent) and members of producers' cooperation or others (0.3 percent). The bulk is engaged in services, particularly in retail trade including shopkeepers, street vendors, and market and stall sales persons.

The following diagram shows the Composition of non-agriculture informal sector employment by sex, and by urban and rural areas. The left panel indicates that men make-up almost two-third of employment in the informal sector outside agriculture (65.8 percent). This is in contrast with the share of men in total informal sector employment (53.7 percent), suggesting that there are relatively fewer men than women engaged in informal agriculture holdings.

Figure 4. 5: Composition of non-agriculture informal sector employment by sex and urban/rural area



Source: LFS February 2017

The right panel of the diagram gives the urban-rural breakdown. It shows that about one-third of informal sector employment outside agriculture is urban (35.7 percent), a value almost twice the percentage of urban employment in total informal sector, agriculture and non-agriculture combined (19.1 percent). This result is in line with the expectation that employment in informal agricultural holdings is relatively lower in urban areas than in rural areas.

4.3. Working time and income from employment

The international definition of employment is expansive covering even one hour of work during the reference week. It is thus important that employment is analyzed in conjunction with data on hours of work in order to distinguish the various intensities of employment. Data on hours of

work are also necessary to calculate time-related underemployment and hourly income from employment so that the resulting income data are comparable across different categories of workers. The February, 2017 LFS measured two concepts of hours of work:

- **Hours actually worked:** The time spent in a job for the performance of activities that contribute to the production of goods and services during the specified reference period. It includes the direct hours that the person is engaged in the activities, as well as the related hours such as waiting time, on-call, resting time, coffee break, prayer, etc. It excludes annual leave, public holidays, sick leave and other leave, as well as commuting time between work and home, longer breaks such as meal breaks and educational activities, even if authorized by the employer.
- **Hours usually worked:** The hours actually worked in a job during a typical week (or in general any specific reference period). In principle, it is calculated as the most frequent number of hours that a person actually worked per week during the past month.

According to the results shown in Table 4.5, the average number of hours usually worked per week by employed persons in their main job was 38.6 hours. The corresponding average number of hours actually worked during the reference week was 33.0 hours. Around 103,818 persons representing 3.0 percent of the employed population reported to have been engaged in secondary jobs during the reference week. The average number of hours usually worked on secondary jobs was 14.7 hours per week while the average number of hours actually worked on secondary jobs was 12.9 hours during the reference week.

Table 4.5: Usual and actual hours of work at main and secondary jobs

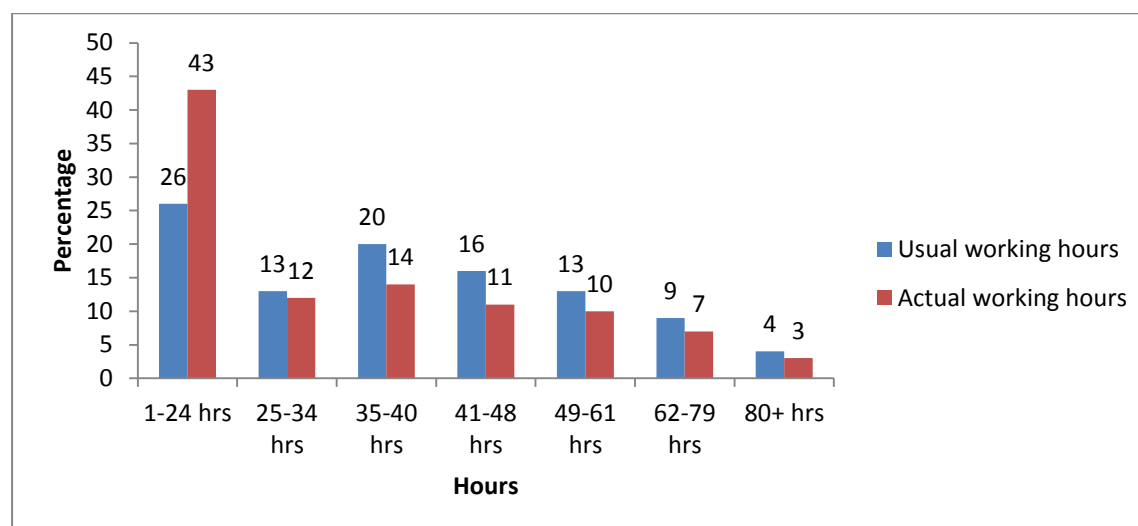
Job category	Number of employed persons	Average hours usually worked per week	Average hours actually worked in reference week
Main job	3,018,532	38.6	31.7
Secondary job	103,818	14.7	12.9
All jobs	3,018,532	39.1	33.0

Source: LFS February 2017

The average number of hours usually worked at all jobs was 39.1 hours per week and the corresponding number of hours actually worked during the reference week was 33.0 hours. For most people (58.7 percent), the weekly usual and actual hours of work at all jobs were the same. While others (36.1 percent), the usual number of hours worked was higher than the actual number of hours due to various reasons, including vacation or holidays or sickness during part or the whole of the reference week. Some 2.7 percent of the employed persons had a job but were temporarily absent from work during the reference week and therefore had zero hours actually worked during the reference week. Finally, for 5.2 percent of the employed persons, the usual number of hours worked was lower than the actual number of hours of work. In total, the volume of employment in terms of actual hours worked at all jobs in the reference week was 97 million hours.

Figure 4.6 shows the size distribution of total weekly usual and actual hours of work of the employed population. The percentage of persons working part-time or short hours (lower than 35 hours per week) was 39 percent measured in terms of usual hours worked and 55 percent measured in terms of actual hours of work.

Figure 4.6: Usual and actual hours of work of employed persons at all jobs



Source: LFS February 2017

The percentage of persons working long hours was about 26 percent, when measured in terms of actual hours of work and 20 percent when measured in terms of usual hours of work. Excessive hours of work are defined as usual hours of work more than 48 hours per week at all jobs. Very long or excessive hours of work is a threat to physical and mental health, interfering with the balance between work and family life, reducing productivity and often signaling an inadequate hourly pay.⁸ The data show that male workers are affected relatively more by excessive hours of work than female workers (31 percent for male against 20 percent for female).

An attempt has been made in the LFS to measure income from employment in cash and in-kind at the main job for both paid employees and self-employed workers. Because of the differences in the nature of income generation in self-employment and paid employment jobs, the international definition of *employment-related income* distinguishes between paid employment and self-employment.⁹ In the case of paid employment, the concept is defined in terms of its components, namely, remuneration in cash and in kind, profit-related pay and current receipts of employment-related social benefits. In the case of self-employment, the concept is defined as the difference between gross value of output and operating expenses.

Given that respondents are generally reluctant about providing information on their income in surveys, the LFS questionnaire was designed in a way so as to make response as easy as possible.

⁸[ILO, *Decent Work Indicators Concepts and definitions, ILO Manual (First version)*, May 2012, pp. 86-87.

⁹ILO, *Resolution concerning the measurement of employment-related income*, Sixteenth ICLS, October 1998. For the sake of simplicity, the term “income from employment” is used in this chapter in preference to the more exact term “employment-related income”.

The series of questions (D12 to D19) thus begun by asking paid employees the amount earned at their main job in cash the last time they were paid and then by asking the period it covered. If the respondent refused to provide the information or did not know the amount, another question was asked phrased in terms of income ranges rather than exact figures. Similar questions were designed for in-kind income and income from self-employment.

The results showed that despite the special questionnaire design, responses to the questions on income from self-employment and on in-kind income from employment were erratic, exhibiting wide variations and large outliers. It was therefore decided to limit the analysis of the data on cash income from employment of employees at main job for which more reliable data could be obtained. The data were processed on this basis as presented in Annex B.5 of this report

Table 4.6 shows the period of coverage of last payment of paid employees at main job. About 30.4 percent of employees reported that their last cash payment covered one month. For another 2.6 percent paid employees, the last payment covered two weeks, 7 percent covered one week, and 59.7 percent covered one day. The remaining less than 1 percent paid employees received their last cash payment for other time periods. The corresponding median monthly cash payment was 30,000 RWF, the median two-week cash payment was 14,000 RWF, the median one-week cash payment was 3,800 RWF and the median daily cash payment was 800 RWF.

Table 4.6: Period of coverage of last income payment of paid employees at main job

Period of payment	Cash income from employment		In-kind income from employment	
	Number of responses	Median income	Number of responses	Median income
Total	7,104	-	393	-
Month	2,720	30,000	107	20,000
Two weeks	168	14,000	5	3,000
One week	470	3,800	42	1,050
One day	3,741	800	215	800
Other(specify)	5	23,000	24	700
Not stated	1	1,600	-	

Source: LFS February 2017

Note: Un-weighted numbers and medians

Based on these results, it was decided to use the conversion factor 1 for monthly payments, 2 for two-weekly payments, 52/12 for weekly payments, and 26 for daily payments to calculate the monthly income. For payments on other time periods, the fix conversion factor of 10 was used. The factor 10 was derived by calculating the ratio of median income from employment for those reporting “monthly” period of payment to the corresponding median for those reporting “other” period of payment.

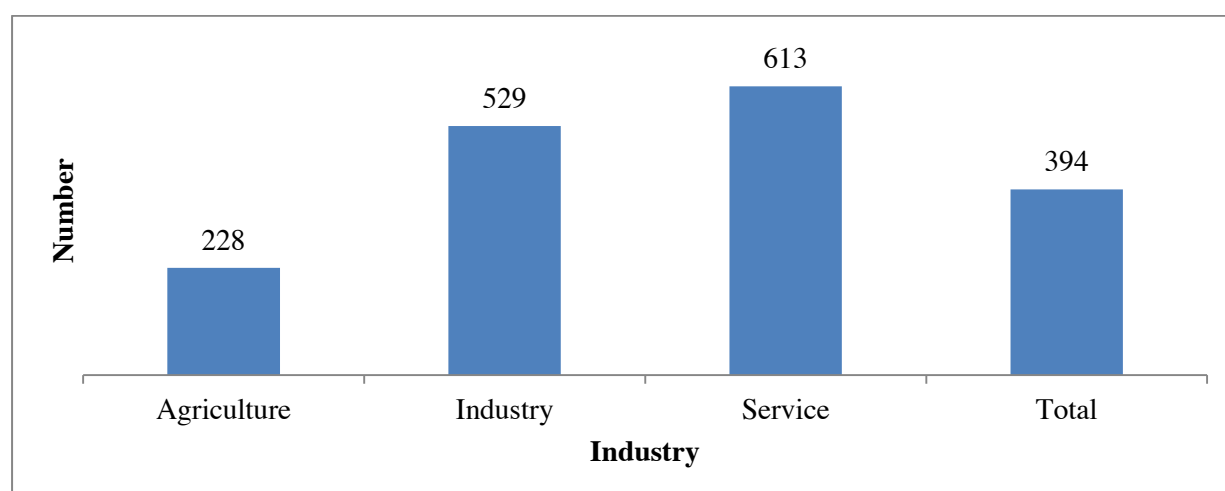
Table 4.7 presents the resulting size distribution of cash monthly income from employment of employees at main job. According to these results, the median income from paid employment of employees at main job was about 20,800 RWF per month while the mean monthly income was 55,934 RWF.

Table 4.7: Size distribution of harmonized monthly income from employment at main job

Monthly income from employment (RWF)	Number of paid employees
Total	2,165,992
Less than 20,000 RWF	947,024
20,000 – 29,999 RWF	509,456
30,000 – 49,999 RWF	236,098
50,000 – 99,999 RWF	207,632
100,000 RWF and above	249,066
Median	20,800 RWF
Average	55,938 RWF

Source: LFS February 2017

Finally, the average hourly cash income from employment of employees at main job was calculated by broad branch of economic activity. The results are shown in Figure 4.7. The overall average hourly cash income from employment of employees at main job was 394 RWF per hour, and the corresponding values were 228 RWF per hour in agriculture, 529 RWF per hour in industry and 613 RWF per hour in services.

Figure 4.7: Average hourly cash income from employment of employees at main job by broad branch of economic activity (RWF per hour)

Source: LFS February 2017

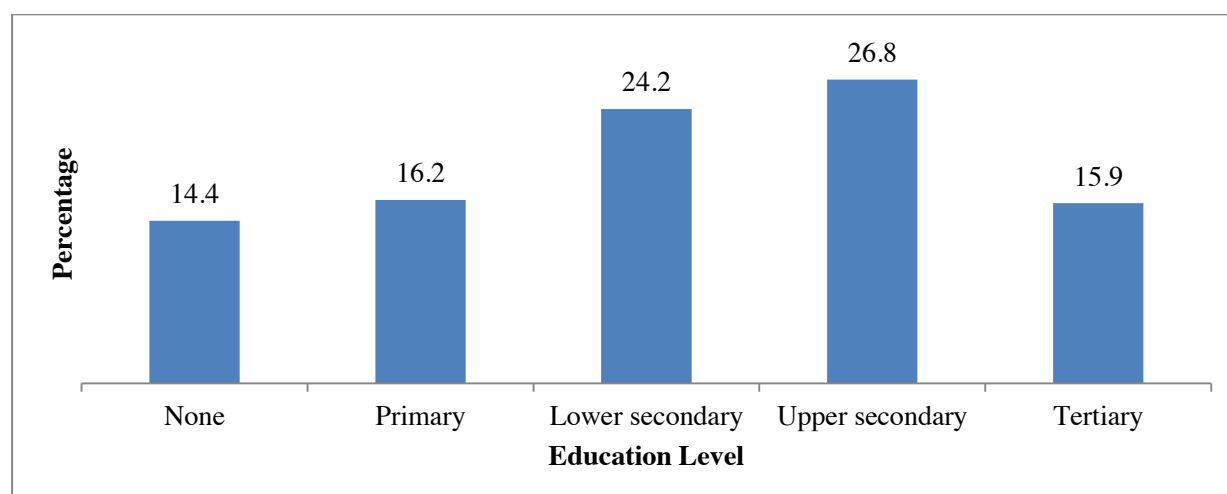
Chapter 5. Unemployment and labour underutilization

Unemployment is a particular form of labour underutilization. It reflects the pressure on the labour market as it is measured in terms of the number of persons without employment, actively seeking and available for employment. Labour underutilization is a more general concept. It refers to mismatches between labour supply and demand, which translate into an unmet need for employment among the population. Labour underutilization includes unemployment, time-related underemployment, and the potential labour force referring to persons not in employment who express an interest in this form of work but for whom existing conditions limited their active job search and/or their availability.

The unemployment rate, defined as the ratio of the number of unemployed persons to the total labour force, is the most commonly used indicator of the labour market. It is sometimes used in a general sense as an indicator of the health of the economy, not just the labour market. According to the results of the February 2017 LFS, the unemployment rate in Rwanda stood at 16.7 percent compared to 18.8 percent in August 2016 LFS. It was higher in the urban areas (18.1 percent) than in the rural areas (16.2 percent). This situation is different from the one in August 2016, where the unemployment rate was higher in rural areas (19.8 percent) than in urban areas (16.4 percent). This confirms the fact that during the low season of agriculture a substantial number of people who are normally involved in subsistence agriculture in rural areas are looking for an alternative job as they are waiting for the next agricultural season. Similarly, the unemployment rate was higher among the female labour force (17.5 percent) than the male labour force (16.1 percent), and among the youth 16 to 30 years old (21.0 percent) than in adults (13.3 percent).

In terms of educational attainment, the results shown in Figure 5.1 indicate that the unemployment rate was highest among persons with upper secondary education (26.8 percent) followed by lower secondary education (24.2 percent). It was lowest among persons with no level of education (14.4 percent) and with Tertiary or higher education (15.9 percent), followed by persons with primary education (16.2 percent).

Figure 5.1: Unemployment rate by level of educational attainment



Source: LFS February 2017

On average each unemployed person used 1.6 methods for seeking employment during the specified reference period. The most frequent method of job search was applying to employers directly, checking at worksites, farms, factory gates, placement (43.9 percent), followed by seeking the assistance from friends, relatives or other types of intermediaries (24.4 percent) and arranging for financial resources, applying for permits, licenses (9.1 percent). Other methods of job search were placing or answering newspaper or online job advertisements or response to job advertisements (8.1percent), looking for land, premises, machinery, supplies, farming inputs (4.7percent) and registering with or contacting public or private employment services 3.5 percent).

The survey provides also data on duration of job search that can be used to estimate long-term unemployment. Long-term unemployment refers to unemployed persons with duration of search for employment lasting 12 months or more, including the reference period. Duration of search for employment is measured from when the unemployed person began carrying out activities to seek employment, or from the end of the last job, whichever is shorter. Duration of unemployment is the length of time that an unemployed person has been without employment, available for employment, and actively seeking employment.

Table 5.1 shows that about 31.9 percent of the unemployed who reported duration of job search were long-term unemployed, i.e., seeking employment for 12 months or more. Most unemployed persons were however seeking employment for the period between one and three month (22.9 percent) or less than one month (21.0 percent). The general shape of the curve of unemployment by duration of job search is U-shaped with concentration at the two tails of the distribution.

Table 5.1: Duration of unemployment: Elapsed duration of job search

Elapsed duration of job search	Number of unemployed reporting duration of job search	%
Total	574,682	100.0%
Less than 1 month	120,702	21.0%
1 – less than 3 months	131,777	22.9%
3 – less 6 months	85,876	14.9%
6 – less 12 months	53,040	9.2%
1 – less 2 years	74,838	13.0%
2 years or more	108,449	18.9%

Source: LFS February 2017

The median reported duration of search for employment by the unemployed was about 4.2 months. It is the median duration of job search until the date of the survey.¹⁰ The duration of unemployment however continues after the survey. The median duration of completed spells of unemployment may be estimated as twice the duration of the interrupted spells of unemployment ($2 \times 4.2 = 8.4$ months).

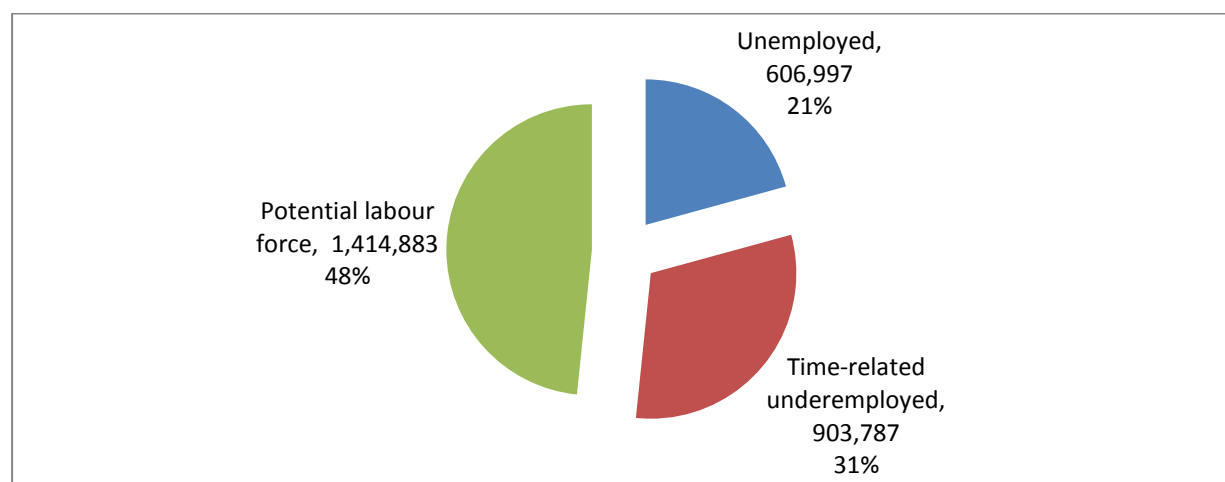
¹⁰Kiefer, Nicholas, M & Lundberg, Shelly J & Neumann, George R, "How Long Is a Spell of Unemployment? Illusions and Biases in the Use of CPS Data," *Journal of Business & Economic Statistics*, American Statistical Association, vol. 3(2), April 1985, pp. 118-128.

This figure is considerably higher than the corresponding estimate of completed spells of unemployment under steady state conditions obtained by the ratio of total (574,682) to the number of unemployed with short-duration of job search less than 1 month (120,702), generally considered more accurately measured in surveys. The steady-state estimate gives $574,682/120,702 = 4.76$ months. It suggests that respondents tend to exaggerate their duration of unemployment.

Unemployment is a particular form of labour underutilization. As mentioned earlier, other forms of labour underutilization include time-related underemployment and potential labour force. Time-related underemployment refers to the situation when the working time of persons in employment is insufficient in relation to alternative employment situations in which they are willing and available to engage. Time-related underemployment is measured here as all persons in employment who, during the specified reference period of the survey (a) wanted to work additional hours, (b) were working in all jobs less than 35 hours during the reference week, and (c) were available to work additional hours given an opportunity for more work. Potential labour force is defined as all persons of working age outside the labour force who, during the reference period, were neither in employment nor in unemployment but who were considered as either (a) *unavailable jobseekers* (seeking employment but not currently available) or (b) *available potential jobseekers* (currently available for employment but did not carry out activities to seek employment).

Potential labour force together with time-related underemployment and unemployment are different dimensions of labour underutilization. Figure 5.2 shows the composition of labour underutilization. It is instructive to note that unemployment was only a small part of labour underutilization in Rwanda comprising 606,997 persons and representing about 21 percent of labour underutilization. By far, the largest part of labour underutilization was the potential labour force close to 1.4 million persons, representing 48 percent of labour underutilization. The potential labour force consists of persons outside the labour force who were currently available for employment but did not carry out activities to seek employment during the specified reference period as well as those seeking employment but not currently available for work.

Figure 5.2: Composition of labour underutilization



Source: LFS February 2017

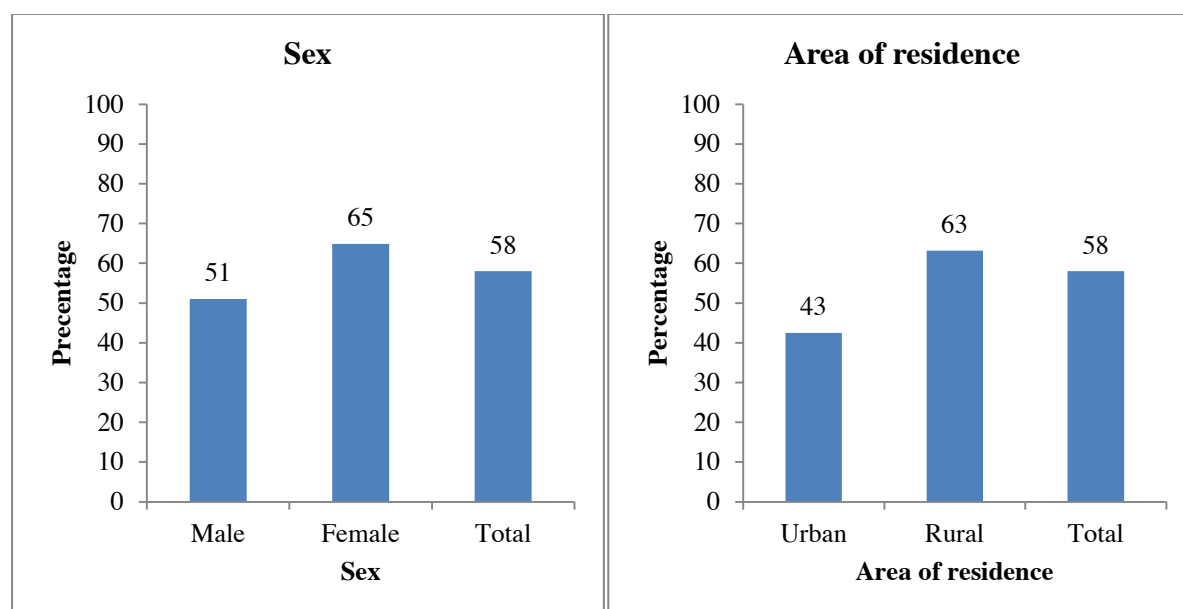
The other part of labour underutilization includes the time-related underemployed, consisting of 903,787 persons or about 31 percent of labour underutilization.

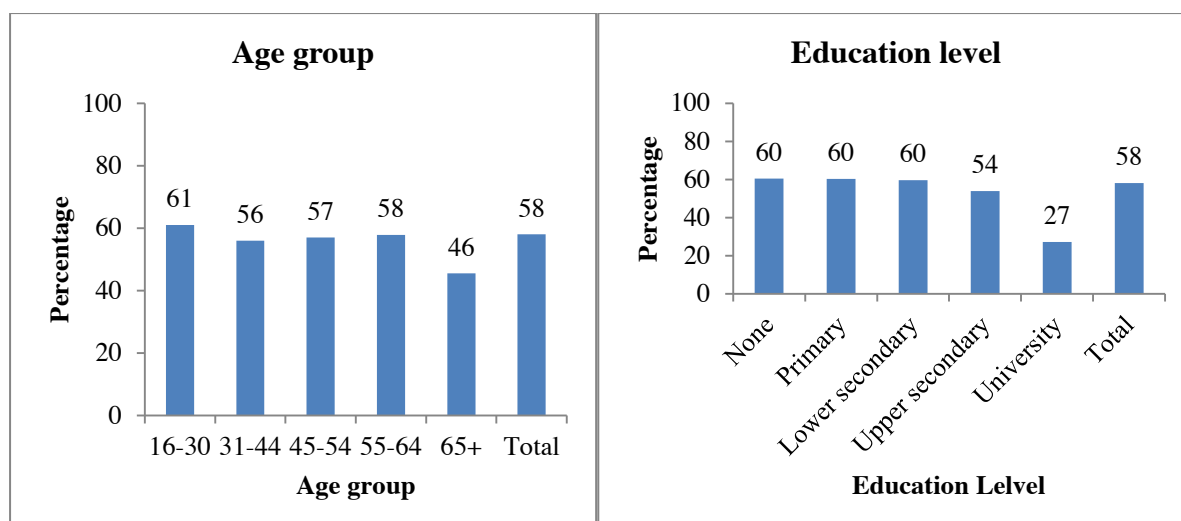
An important sub-category of the potential labour force is the discouraged jobseekers, i.e., those outside the labour force who did not “seek employment” for labour market-related reasons, such as past failure to find a suitable job, lack of experience, qualifications or jobs matching the person’s skills, lack of jobs in the area, considered too young or too old by prospective employers). According to the current LFS there were about 1,002,291 discouraged jobseekers in Rwanda in February 2017 representing around 32.5 percent of those out of the labour force.

The international standards further suggest the identification of a separate group of persons outside the labour force who expressed interest in employment. They are called *willing non-jobseekers* and defined as persons neither employed or unemployed who wanted employment but did not seek employment and were not currently available for work. The estimate of the number of willing non-jobseekers obtained from the February 2017 LFS was 107,373 representing less than 3.5 percent of the population outside the labour force.

Figure 5.3 shows the composite measure of labour underutilization for different socio-demographic characteristics of the population. While the unemployment rate (LU1) is the narrowest measure of labour underutilization, the composite measure (LU4) is the broadest measure of labour underutilization. It is the ratio of total labour underutilization to the extended labour force, calculated as the sum of the labour force and the potential labour force.

Figure 5.3: Composite measure of labour underutilization by sex, urban/rural area , age group and educational attainment





Source: LFS February 2017

In terms of gender and age group, the composite measure of labour underutilization closely follows the pattern of the unemployment rate though at a much higher level. The female rate of labour underutilization (65 percent) is relatively higher than the male rate (51 percent). Similarly, the youth (16 to 30 years of age) are affected by labour underutilization at a relatively higher rate (61 percent) than most of other age population groups (56 percent for persons 31 to 44 years old, 57 percent for persons 45 to 54 years old and 46 percent for persons 65+ years old). It is important to note that the population in age group 16-30 years is the most affected by the labour underutilization (61%).

According to area of residence, the rate of labour of underutilization is higher in rural areas (63.2 percent) than in urban areas 42.5 percent). This is because there is a large of pool of subsistence foodstuff producers in the rural areas outside the labour force, who is available for employment but not seeking work.

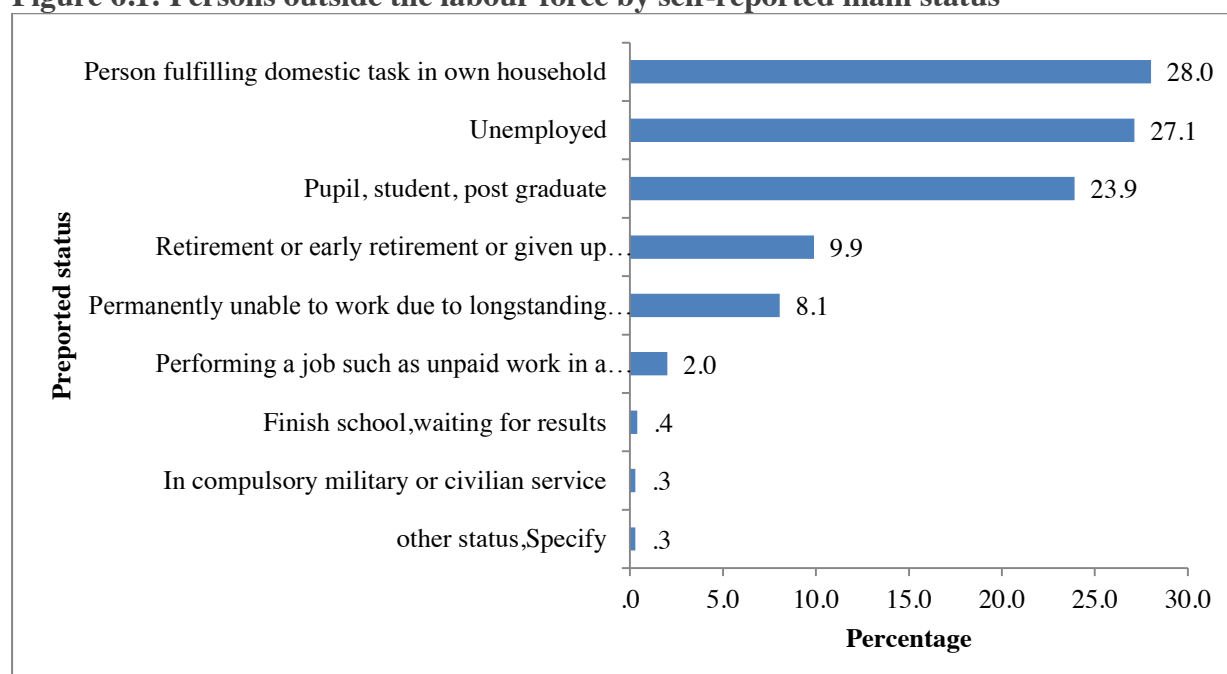
In terms of level of educational attainment, the composite measure of labour underutilization differs from the pattern of the unemployment rate. While the unemployment rate is highest among persons with upper and lower secondary, the rate of labour underutilization is highest among persons with no educational attainment or primary education.

Chapter 6. Persons outside the labour force

A particular characteristic of countries with large subsistence foodstuff production is the fact that the size of the working age population outside the labour force may be as big or larger than the size of the labour force itself. In Rwanda, the LFS_February 2017 shows that the number of persons 16 years old and over who are outside the labour force is about 3,084,000 against 3,626,000 in the labour force. More than the majority of the persons outside the labour force are subsistence foodstuff producers (57 percent).

The survey identifies the main status of people outside labour force as self-reported. The largest group consisted of persons who considered themselves fulfilling domestic tasks in their household (28 percent). The next largest group was persons who reported to be unemployed (27 percent)

Figure 6.1: Persons outside the labour force by self-reported main status



Source: LFS February 2017

The survey also included a question on main source of livelihood of persons outside the labour force. Table 6.1 shows the results by sex and broad age group. For most people outside the labour force, the main source of livelihood was own-production irrespective of sex and age group, except for the young population between 16 and 24 years old outside the labour force, for whom the main source of livelihood was from their parents. Table 6.1 also shows that for elderly persons 65 years old and above who were outside the labour force, the main source of livelihood after own production was from their children or other family members. The percentage of those who were supported by FARG, church or other non-government organizations was around one percent of the persons outside labour force.

Table 6.1: Main source of livelihood of persons outside the labour force by sex and age group

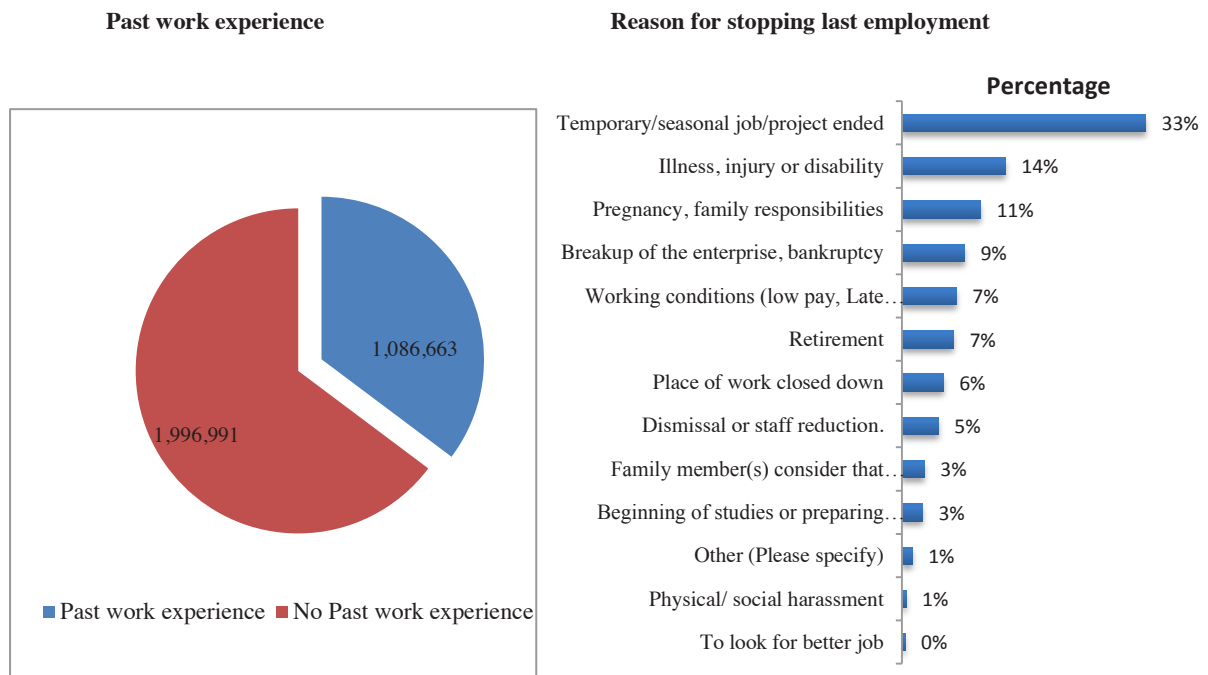
	Sex			Age group				
	Total	Male	Female	16-24 yrs	25-34 yrs	35-54 yrs	55-64 yrs	65+ yrs
Total	3,083,654	1,170,383	1,913,271	1,162,896	546,872	670,220	328,459	375,207
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Parents	30.2	38.7	24.9	71.6	15.3	1.8	0.6	0.2
Husband/Wife	9.7	4.6	12.7	2.9	22.4	13.8	7.8	6.2
Child	2.8	1.3	3.7	0.0	0.2	1.2	5.4	16.0
Other family members	7.4	7.8	7.1	12.4	5.3	2.4	2.2	8.2
Pension	0.3	0.5	0.2	0.1	0.0	0.0	1.2	1.5
Own production	43.7	40.8	45.5	9.8	50.1	75.5	76.5	54.2
Assistance received [VUP]	0.9	0.5	1.3	0.0	0.2	0.4	0.7	6.3
Assistance received [FARG]	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.3
Assistance received [Church, Other NGO]	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1
Assistance from friends	1.2	0.8	1.5	0.4	1.4	1.3	1.5	3.0
Revenue from own property/Savings	1.4	1.7	1.2	0.2	1.2	2.0	2.2	3.4
Past work	1.2	1.8	0.8	0.6	2.6	1.2	1.4	0.7
Scholarship	0.8	1.2	0.6	1.8	1.0	0.0	0.0	0.0
Others (Please specify)	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.0

Source: LFS February 2017

Persons outside the labour force have different degrees of attachment to the labour force. Some are in the potential labour force as discussed in the preceding section. Others may not be in the potential labour force but have had past work experience or were willing to work although they were not currently seeking or available for work.

Among the population outside the labour force, about 1,086,663 persons representing 35 percent reported to have had past work experience. Thirty three percent of the population who had past work experience reported that the reason for stopping employment was the nature of their jobs which was temporally or seasonal. For others the main reason was, illness/injury or disability (14percent), or pregnancy, family responsibilities (10.7 percent), breakup of the enterprise, bankruptcy (8.5 percent) and other reasons such as low pay, late payment of wages, difficult work, or faraway place of work.

Figure 6.2: Past work experience and reason for stopping last employment of persons outside the labour force



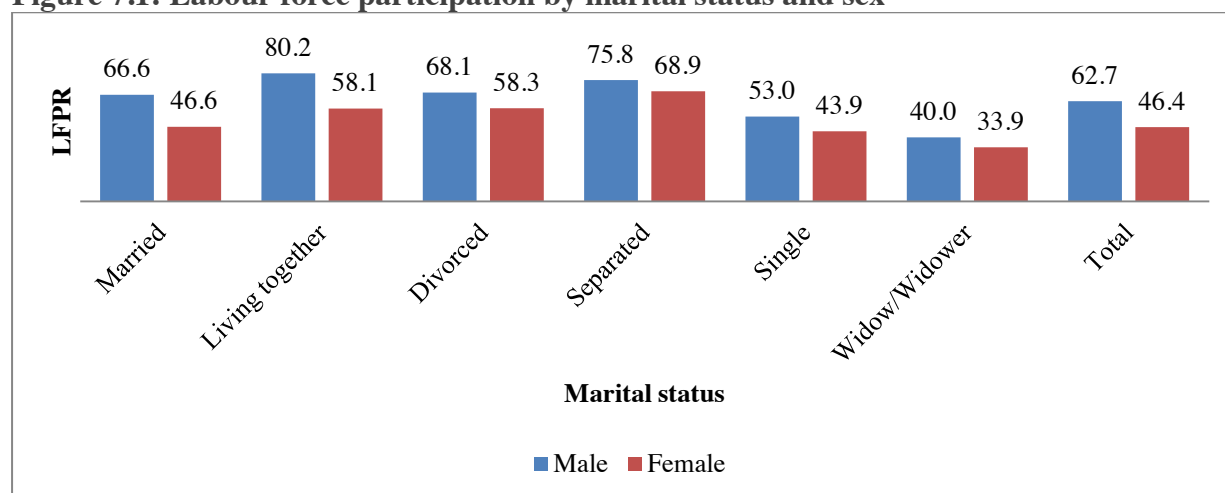
Source: LFS February 2017

Chapter 7. Women and equal opportunities

Women account for close to 46 percent of the labour force in Rwanda. The February, 2017 LFS provides a rich set of current information on their labour force participation. Here a few aspects are examined: female labour force participation rate by marital status, pay gap between women and men, and the proportion of women in managerial positions.

The overall female labour force participation rate was 46 percent. As shown in Figure 7.1 below, the labour force participation rate was lower for female widower (34 percent) and much higher for female separated (69 percent).

Figure 7.1: Labour force participation by marital status and sex



Source: LFS February 2017

Gender pay gap measures the relative difference between the male average hourly pay and the female average hourly pay for doing the same type of work. In line with the ILO decent work indicator, gender pay gap may be measured as the difference between the gross average hourly earnings of male and female employees expressed as percentage of gross average hourly earnings of male employees.¹¹ The limitation in this methodology is that it overlooks different factors that may be the source of wage gap such as the level of education, length of work experience, occupation etc. Not taking into account these factors may result to the over estimation of gender wage gap. In this report the extended Mincer equation¹² have been used to control those differences in individuals characteristics as well as differences in their jobs such as occupation, industry, formality status and the type of contract in order to compare, to the extent possible, the means wages of males and females working in similar jobs. The results for hourly earnings are shown in table 7.1 below. After controlling for the above mentioned variables, the results shows that there is no gender pay gap in hourly earnings. However, if the monthly earnings is used, we observe women are paid around 11% lower than the monthly salary of men. The different results in using hourly or monthly earning may indicates that the monthly working time of men is higher than the one of females.

¹¹ILO, *Decent Work Indicators Concepts and definitions, ILO Manual (First version)*, May 2012, pp. 130-131.

¹²Heckman, James J., Lochner, Lance J., and Todd, Petra E., "Fifty Years of Mincer Earnings Regressions," First draft June 1998, Revised March 19, 2003.

Table 7.1: Gender wage gap using extended Mincer earning equation

VARIABLES	(1) Employee hourly	(2) Employee hourly Public	(3) Employee hourly private	(4) Employee monthly
Female	-0.0008	-0.0549	0.0077	-0.1088***
	(-0.04)	(-0.96)	(0.37)	(-7.06)
Age	0.0371***	0.0330	0.0372***	0.0428***
	(8.30)	(1.31)	(8.16)	(12.22)
Age squared	-0.0004***	-0.0001	-0.0004***	-0.0005***
	(-6.85)	(-0.43)	(-7.02)	(-10.52)
Primary	0.1285***	0.5015***	0.1177***	0.1414***
	(5.34)	(2.79)	(4.86)	(7.97)
Lower_sec	0.3504***	0.5960***	0.3343***	0.3794***
	(6.52)	(3.66)	(5.84)	(9.11)
Upper_sec	0.5390***	0.9632***	0.4832***	0.5669***
	(10.75)	(7.42)	(8.55)	(13.74)
University	1.5376***	1.9892***	1.3525***	1.5109***
	(24.77)	(14.91)	(15.42)	(27.91)
Managers	0.9065***	0.7449***	1.0623***	0.9366***
	(9.95)	(4.42)	(8.07)	(10.79)
Professional	0.4446***	0.1721	0.7671***	0.4563***
	(6.96)	(1.23)	(8.22)	(8.09)
Technician	0.7043***	0.4968***	0.8819***	0.6340***
	(8.05)	(3.08)	(7.48)	(8.22)
Clerical	0.4990***	0.5038***	0.5361***	0.5968***
	(5.88)	(2.98)	(5.29)	(7.90)
Service	-0.0660	0.0576	-0.0804	0.2151***
	(-1.28)	(0.37)	(-1.45)	(5.30)
Agriculture	-0.0603	-0.1902	-0.0434	-0.0125
	(-0.33)	(-0.77)	(-0.22)	(-0.12)
Crafts_	0.6534***	0.8354***	0.6542***	0.6445***
	(12.94)	(4.48)	(12.55)	(15.55)
Plant	0.6290***	0.7914***	0.6084***	0.7906***
	(7.87)	(3.60)	(7.23)	(10.92)
Industry	0.2736***	-0.5100**	0.2844***	0.5189***
	(8.81)	(-2.15)	(8.99)	(20.23)
Services	0.0815**	-0.7230***	0.1101***	0.2642***
	(2.04)	(-3.54)	(2.63)	(8.49)
Formal	0.0226	0.0367	0.0236	0.2312***
	(0.71)	(0.46)	(0.68)	(8.35)
Permanent	-0.3007***	-0.1417*	-0.3083***	-0.0604**
	(-9.19)	(-1.94)	(-8.54)	(-2.16)
Constant	4.3521***	4.5380***	4.3655***	8.9588***
	(50.10)	(9.35)	(48.98)	(134.32)
Observations	6,714	764	5,949	6,714
R-squared	0.4453	0.5645	0.3748	0.6738

Robust t-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Women are gradually increasing their numbers as managers. A recent global report prepared by the ILO states that women own and manage over 30 percent of all businesses, ranging from self-employed (or own-account workers), micro and small enterprises to medium and large companies.¹³ Occupations in senior and middle management correspond to the ISCO sub-major occupation groups occupational categories 11 (Chief executives, senior officials and legislators) and 12 (Administrative and commercial managers).

The data in Table 7.2 show that there were 2,667 women working as chief executives, senior officials and legislators, about 4,996 women as administrative and commercial managers, , giving a total of 7,663 women in specialized managerial positions. The corresponding total for men was 12,217 persons. Thus, the overall share of women in managerial positions was 38.6 percent, a figure above the world average.

Table 7.2: Women and men in managerial positions

Sub-major occupation groups	Persons			%		
	Total	Male	Female	Total	Male	Female
Total Persons in managerial positions	19,878	12,217	7,663	100.0	61.4	38.6
Chief executives, senior officials and legislators	9,230	6,563	2,667	100.0	71.1	28.9
Administrative and commercial managers	10,650	5,654	4,996	100.0	53.1	46.9

LFS February 2017

¹³ILO, *Women in Business and Management Gaining Momentum*, Abridged version of the Global Report, Geneva, 2015.

Chapter 8. Youth

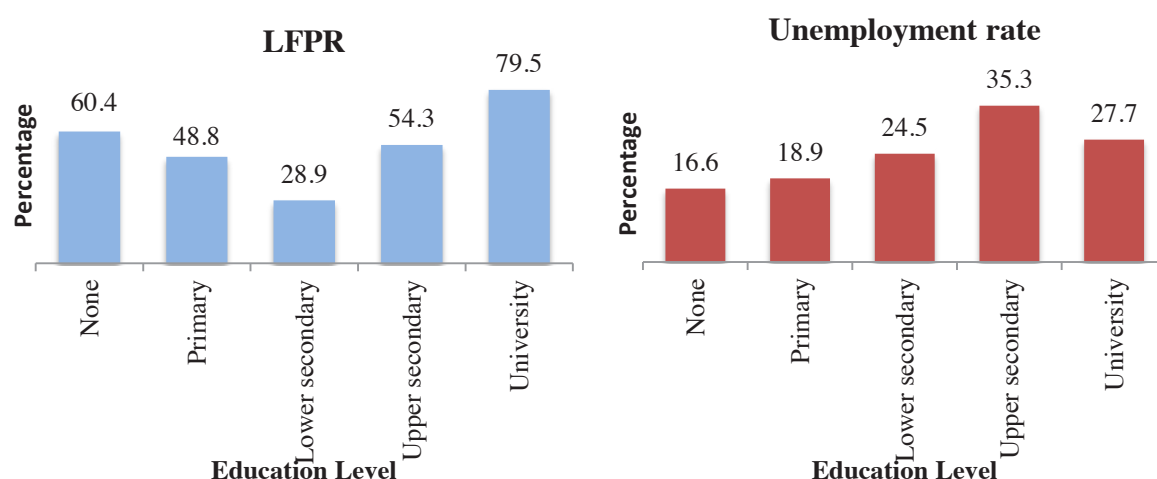
8.1. Youth and education

In general there is a two-way relationship between the education system and the labour market. The education system supplies the labour market with an educated labour force, while the labour market – through the wage structure of occupations and other labour market variables – transmits signals on the types of qualifications expected from the education system. The data collected by the February 2017 LFS contain the elements for carrying such types of analysis. This section focuses on two aspects: the relationship between educational attainment and labour force participation and unemployment, and the extent of skill mismatch among the youth population.

In Rwanda, youth is defined as young person's 16 to 30 years of age. The international definition of the youth population is “persons aged 15-24 years old.”¹⁴ To cover countries where entry into the labour market occurs at a later stage, the ILO extends the definition to include young adults aged 25-29 years old for certain purpose.

Figure 8.1 presents in the left panel the youth labour force participation rate by educational attainment and in the right the youth unemployment rate by educational attainment. The data show that the labour force participation rate was higher among the university graduates (80 percent) and for youth without any educational attainment (60 percent), and remain relatively the same on other levels of education (50 percent) except for young people with lower secondary education for whom the labour force participation rate was still lower at 29 percent.

Figure 8.1: Youth (16-30 years old) labour force participation rate and unemployment rate by educational attainment



Source: LFS February 2017

The relationship between educational attainment and the unemployment rate is also significantly different, showing a relatively positive slope. Unemployment shows an increasing

¹⁴ILO, *Global Employment Trends for Youth 2015*, Employment Policy Department, International Labour Office, Geneva, 2015.

rate from 16.6 percent for young people with no educational attainment to 35.3 percent for youth with secondary education and then a slight declining rate to 27.7 percent among youth who completed university education. This pattern suggests that the higher the educational attainment of a young person, the higher his or her risk of unemployment. One could think of a number of reasons for this phenomenon. First, persons with higher educational attainment have a higher reservation wage, preferring to wait for a suitable employment rather than accepting a job considered as inadequate or low paying. Another possible reason may be the existence of mismatch between the qualification of the young and the skill requirements of jobs in the labour market.

8.2. Youth neither in paid or market employment, nor in education or training (NEET)

A full accounting of the labour market situation of young people is important for the formulation of employment policies regarding the youth. Of the total youth population of 3,137,719 persons, the LFS February 2017 shows that 781,553 were in education or training, and 1,294,345 were in employment during the reference week, including about 60,180 persons in both employment and in education or training. The number of young persons who were neither in employment, nor in education or training was 1,061,821 corresponding to about 33.8 percent of the youth population. This is also a reflection of the new unemployment definition where those subsistence farming or unpaid/nonmarket work are not considered as employment. This figure provides a measure of the youth who are outside the educational system and not in employment (NEET). The NEET rate is an ILO decent work indicator and serves as a broader measure of potential youth labour market entrants than youth unemployment.¹⁵

Among the NEET population are the youth unemployed or in the potential labour force who are not in the educational system, 320,215 and 580,069, respectively. The remaining 161,557 are not accounted for. Some may want employment but not seeking, nor currently available for work. An accounting of the youth population is given in the following table for young men and young women, separately:

Table 8. 1: Accounting for the youth population (16-30 yrs) with respect to employment and education or training, February 2017

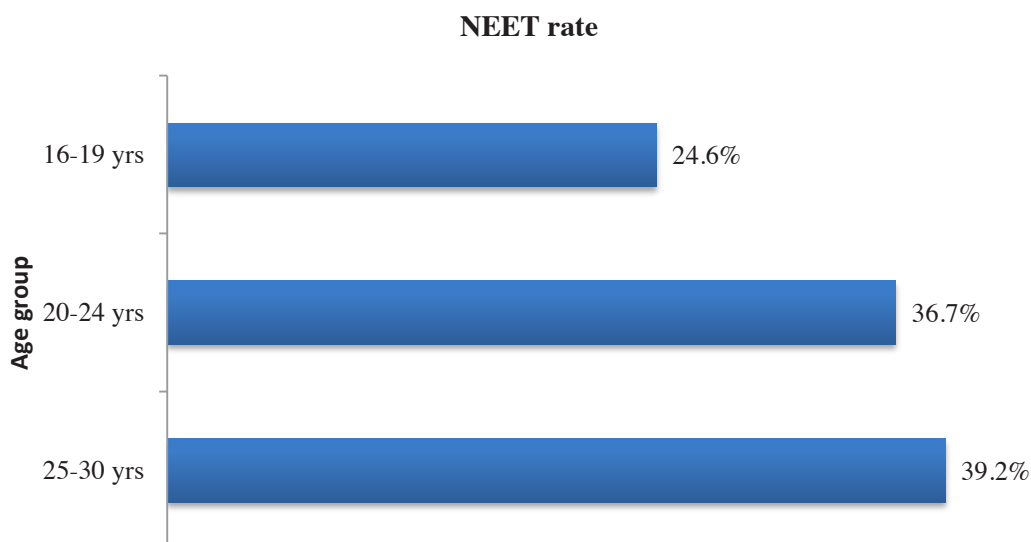
	Count			Percentage		
	Total	male	Female	Total	male	Female
Total youth population (16-30 yrs)	3,137,719	1,502,056	1,635,663	100	100	100
In education or training	781,553	412,522	369,031	24.9	27.5	22.6
In employment	1,234,165	662,814	571,351	39.3	44.1	34.9
In both employment and education or training	60,180	36,793	23,387	1.9	2.4	1.4
Not in employment nor in education/training	1,061,821	389,927	671,894	33.8	26.0	41.1
- Unemployed	320,215	150,401	169,814	30.2	38.6	25.3
- Potential labour force	580,069	192,386	387,683	54.6	49.3	57.7
- Other	161,537	47,140	114,397	15.2	12.1	17.0

Source: LFS February 2017

¹⁵ ILO, *Decent Work Indicators Concepts and definitions, ILO Manual (First version)*, International Labour Office, Geneva, May 2012, pp. 51-53.

As expected, the NEET rate is higher among young women (41.1 percent) than among young men (26.0 percent), as relatively more women than men remain outside the labour force after completing their education or training. Many of them are however in the potential labour force, available to take up employment under suitable conditions. The following diagram shows the variation of the NEET rate as a function of age:

Figure 8. 2: Young people not in employment and not in education or training



Source: LFS February 2017

It indicates that the percentage of young people not in employment and not in education or training increases with age, starting at 24.6 percent in the age group 16 to 19 years and reaching 39.2 percent in the age group 25-30 yrs. As mentioned earlier, the overall average is 33.8 percent.

Chapter 9. Participation in training programmes

The role of training for insertion or reinsertion into the labour market is widely recognized. In order to assess the outreach of training among the youth and adults as well as to understand the nature of the demand for training in terms of subject of courses and type of training providers, the LFS February 2017 questionnaire included a series of four questions (B07-B10) on current participation or past acquisition of in any trade or technical vocational course among all eligible respondents.

In total an estimated 576,187 persons completed a trade or technical vocational course in the past. Table 9.1 gives the distribution of training courses completed and the current status of employment of the participants. The most popular training course was tailoring with participation rate of 29 percent, followed by masonry with participation rates of 22 percent and culinary art and carpentry with 7 percent each. There were in total 14 training course subjects that covered more than 1 percent each of the total number of graduates.

Table 9.1: Participation in trade or technical vocational course and current employment status

Technical vocational course	Participated in vocational training		Currently working	
	Number of persons	%	Number of persons	%
Total	576,187	100	335,943	58.3
Tailoring	164,506	28.6	84,426	51.3
Masonry	129,055	22.4	75,340	58.4
Culinary arts	38,469	6.7	18,516	48.1
Carpentry	38,024	6.6	24,260	63.8
Automotive body repair	37,466	6.5	24,684	65.9
Hairdressing	28,672	5	18,126	63.2
Welding	19,562	3.4	13,923	71.2
Domestic Electricity	15,948	2.8	12,463	78.1
Crochet embroidery	14,630	2.5	7,834	53.5
Automotive technology.	10,749	1.9	7,004	65.2
Engine mechanics	6,805	1.2	5,164	75.9
Plumbing	6,405	1.1	3,633	56.7
Motor vehicle engine mechanics	6,386	1.1	4,299	67.3
Biding and Jewelries	6,151	1.1	2,560	41.6
Software Development	5,629	1	2,726	48.4
Computer maintenance	5,189	0.9	2,731	52.6
Front office	3,634	0.6	2,349	64.6
Industrial electricity	3,549	0.6	1,989	56
Painting and decoration	3,271	0.6	1,982	60.6
Food & Beverage services	3,130	0.5	2,456	78.4

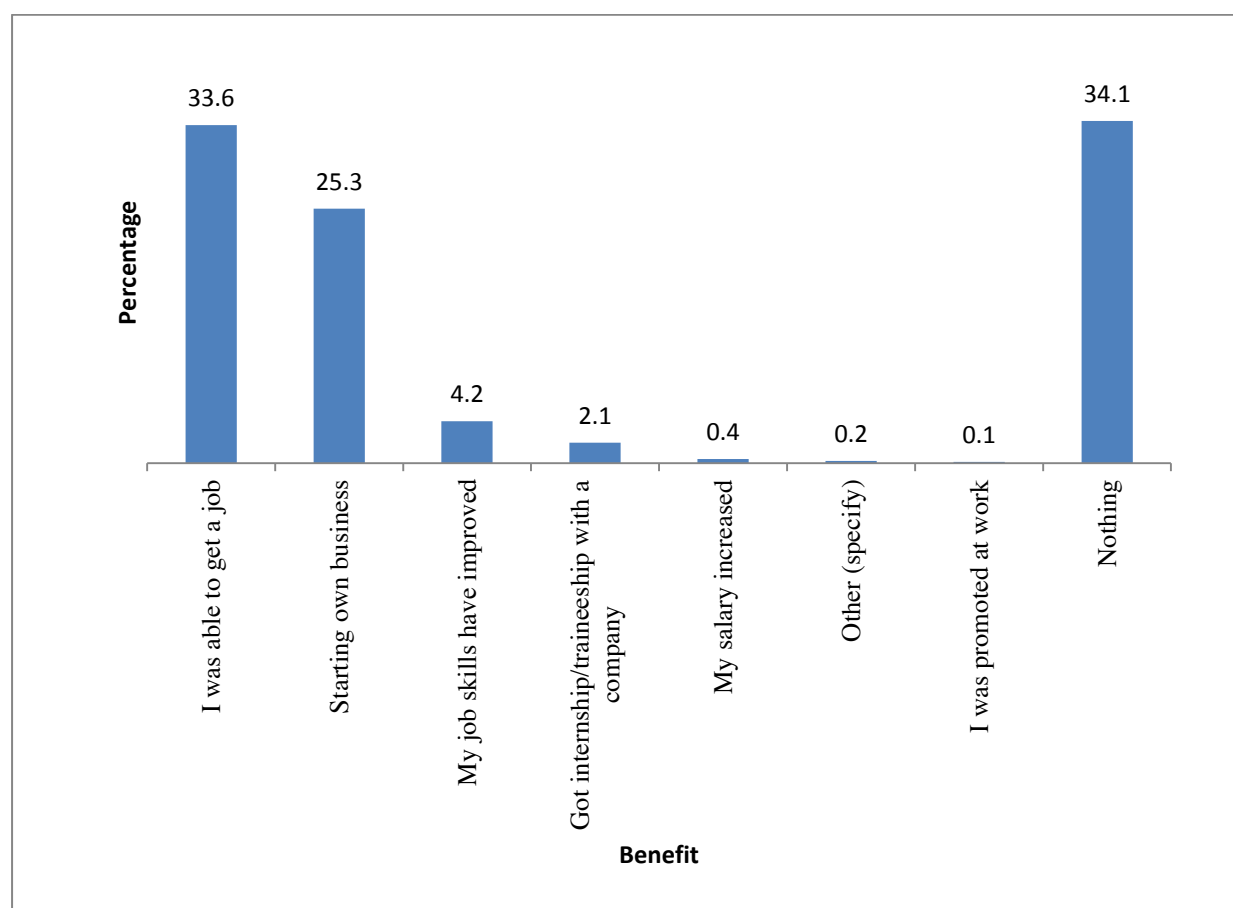
Technical vocational course	Participated in vocational training		Currently working	
	Number of persons	%	Number of persons	%
Civil construction	2,500	0.4	1,863	74.5
Networking	2,490	0.4	1,301	52.2
Leather craft	2,390	0.4	523	21.9
Pottery	2,316	0.4	1,929	83.3
Food processing	2,081	0.4	1,974	94.9
Agri-Business	1,576	0.3	1,106	70.2
Livestock	1,344	0.2	913	68
Animal health	1,251	0.2	1,125	89.9
Nursery growing	993	0.2	993	100
Sport and Medical Massage	846	0.1	699	82.6
Film making	808	0.1	-	0
Auto- Electricity	732	0.1	622	84.9
Multimedia	557	0.1	460	82.7
Screen printing	548	0.1	393	71.7
NCDs and Palliative Care Community Health	523	0.1	303	58
Beauty therapy	416	0.1	55	13.2
Milk processing	396	0.1	268	67.5
House keeping	370	0.1	233	62.9
Music	243	0	151	61.9
Forestry	235	0	-	0
Manicure and Pedicure	180	0	180	100
Crop production	147	0	147	100
Concrete masonry	75	0	75	100
Horticulture production	-	0	-	0
Agriculture Mechanization	-	0	-	0
Bee Keeping	-	0	-	0
Other	5,939	1	4,164	70.1

Source: LFS February 2017

Evaluating the success or non-success of the training courses in terms of the current employment status of the graduates, it may be said that training courses with the highest percentage of graduates currently employed were the most successful, and training courses with the lowest percentage of graduates currently employed were the least successful. In this sense, it appears that among the training courses with more than 1 percent of the graduates, Domestic electricity was the most successful training course with current employment rate of 78 percent, followed by engine mechanics, welding, motor vehicle engine mechanics, and automotive body repair, with current employment rates of 75.9, 71.2, 67.3 and 65.9 percent, respectively.

The LFS February 2017 also included a question (B14) on the success of the training course in terms of “what happened after the completion of the course”. The results presented in Figure 9.1 show that 59 percent of the graduates reported improvement in their situation after finishing the training course. These included 34 percent who managed to get a job or were able to find a job following the training course. By contrast a considerable portion (25 percent) reported no particular improvement in their situation after completion of the training course.

Figure 9.1: Reported benefits after completing vocational training



Source: LFS February 2017

The data on participation in training courses may be further analyzed in terms of the length of training course and the year of its completion as well as in terms of the type of institution providing the training course and the main sponsor.

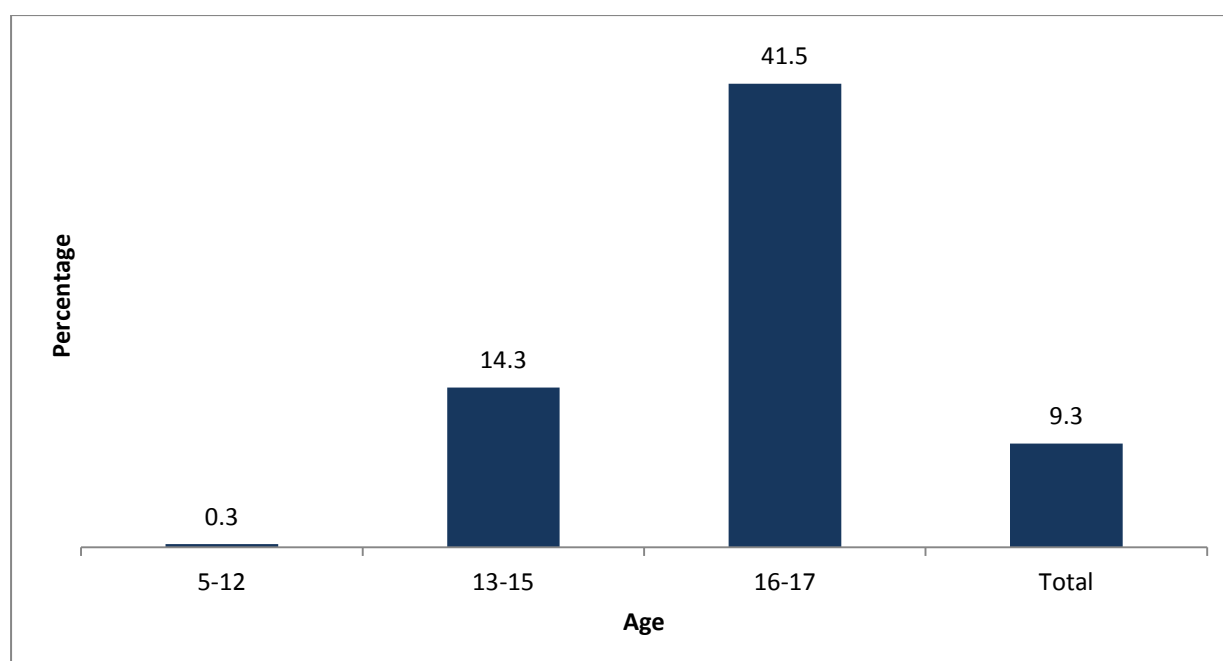
Chapter 10. Working children

In many countries, children below the legal working age are engaged in economic activity, earning money in a variety of casual or informal jobs or helping without pay in family enterprises. Not all work performed by children is however *child labour*. According to the international standards concerning statistics of child labour adopted by the 18th ICLS in 2008, the term *child labour* refers to the engagement of children in prohibited work and, more generally, in types of work to be eliminated as socially and morally undesirable as guided by national legislation and relevant ILO conventions and recommendations.

According to the Ministerial guidelines N° 02 of 10th May 2016 related to the elimination of child labour in Rwanda, children in age group 5-12 are allowed to participate in non-paid activities performed for the household such as carrying household harvest from fields, preparing kitchen garden etc, provided that the allocated time in those activities does not exceed 20 hours per week. The same guidelines stipulates that those aged 13-15 years old are allowed to work not more than 20 hours per week in light non-paid agricultural related activities performed for the household as well as in paid light activities performed outside the household such as selling newspapers, selling air times, hair cutting etc. Children aged 16-17 years old are allowed to work in all activities which don't harm their life during the same working hours as the adult persons aged 18 years and above. The mentioned guidelines provides more example of light works allowed for children aged 5-15 and the list of worst form and hazardous works as well as industries prohibited for all children including those aged 16-17 years old. While the RLFS was not designed to measure child labour, the survey collected data on work activities of children 5-13 years old, in addition to the labour force data on the population 14 years old and over. Thus, some aspects of the activities of all children 5-17 years old can be estimated using the current RLFS data while the full analysis of child labour will be subject to future investigations.

According to the survey results, there were in total 3,798,346 children 5 to 17 years old. Among them, 351,350 representing 9.3 percent were working either inside or outside of their households during the reference period. This rate is lower than the world average (11.8 percent) and also below the average rate in Sub-Saharan Africa (26.2 percent) estimated for 2012 by the ILO.¹⁶ It is important to mention that this number includes all working children irrespective of whether they were employed or involved in subsistence agriculture. However, the following information will shed more light on some work characteristics covered by the survey. Figure 10.1 presents the distribution of working children by age group for children 5 to 17 years old. According to these results, the percentage of working children in the age category 5 to 12 years old was only 0.3 percent and the majority of them were working 20 hours or less per week. In the age category 13 to 15 years old, the percentage of children who were working was 14.3 of which 79% were engaged in agriculture activities and 21% in non-agriculture activities. The rate of working children among 16-17 years old was 41.5 and the majority of them were also working in agriculture (76%). (Table 10.1)

¹⁶ ILO, *Global child labour trends 2008 to 2012*, Yacouba Diallo, Alex Etienne and Farhad Mehran, International Programme on the Elimination of Child Labour (IPEC), International Labour Office, Geneva, 2013.

Figure 10.1: Child work rate by age group

Source: LFS February 2017

From the table 10.1, it can be also observed that the number of working hours is highly associated with the working sector (agriculture/non-agriculture) and the age of children. While children who worked less hours are predominant in agriculture activities (eg:72% of children worked 20 or less hours and only 20% worked 30 or more hours), the majority of children who worked many hours is found among those who performed non-agriculture activities (67% worked 30 or more hours per week and only 24% worked 20 hour or less). In the same way, the proportion of children who worked relatively lower hours (1-14 hours) decreases with age of children, while it shows an increasing pattern, in general, for children who worked more than 14 hours.

Table 10. 1: Distribution of working children by age group, working hours and type of work

	Weekly working hours	Age group			Total
		5-12yrs	13-15yrs	16-17yrs	
All	1-14 Hours	50.4	56.5	41.3	46.7
	15-20 Hours	9.7	10.6	14.9	13.3
	21-29 Hours	11.3	8.8	7.9	8.3
	30-45 Hours	16	15	20.5	18.6
	46+ Hours	12.7	9.1	15.4	13.2
	Total	100	100	100	100
		6,423	119,740	225,187	351,350
	% of all children	0.3%	14.3%	41.5%	9.3%

Agriculture	Hours	5-12yrs	13-15yrs	16-17yrs	Total	
	1-14 Hours	0	67.9	49.7	56.2	
	15-20 Hours	0	10.2	18.1	15.3	
	21-29 Hours	0	7.5	8.8	8.3	
	30-45 Hours	0	13	20.3	17.7	
	46+ Hours	0	1.4	3.1	2.5	
	Total		100	100	100	100
			0	94,943	170,620	265,563

Non agriculture	children	5-12yrs	13-15yrs	16-17yrs	Total	
	1-14 Hours	50.4	13	14.9	17	
	15-20 Hours	9.7	12.2	4.7	7.3	
	21-29 Hours	11.3	13.6	5.2	8.1	
	30-45 Hours	16	22.7	21.3	21.3	
	46+ Hours	12.7	38.4	53.9	46.3	
	Total		100	100	100	100
			6,423	24,797	54,567	85,787

Some industries such as construction, mining, etc are not allowed to engage children below 18 years old. Table 10.2 shed light on the economic activities of working children aged 14-17 years old. Similarly to the information in the previous table the majority of working children in this age category were engaged in agriculture mostly within their households (78.0%). The remaining children were distributed in different non-agricultural sectors whose the most predominant are households as employers (12.5%), trade (4.2%) and construction (1.7 %).

Table 10. 2: Distribution of working children aged 14-17 years old by economic activity according to age group

Economic activities	14-15yrs	16-17yrs	Total(14-17 yrs)
Agriculture forestry and fishing	82.4	75.8	78.0
Mining and quarrying	0.4	0.7	0.6
Manufacturing	0.6	1	0.9
construction	0.1	2.6	1.7
Whole sale and retail trade; repair of motorcycles and motorcycles	4.1	4.2	4.2
Transportation and storage	1.2	1.2	1.2
Accommodation and food service activities	0.3	0.3	0.3
Financial and insurance activities	0	0.1	0.1
Other services	0.5	0.6	0.6
Activities of households as employers	10.4	13.5	12.5
Total	100	100	100
	114,629	225,187	339,816

Source: LFS February 2017

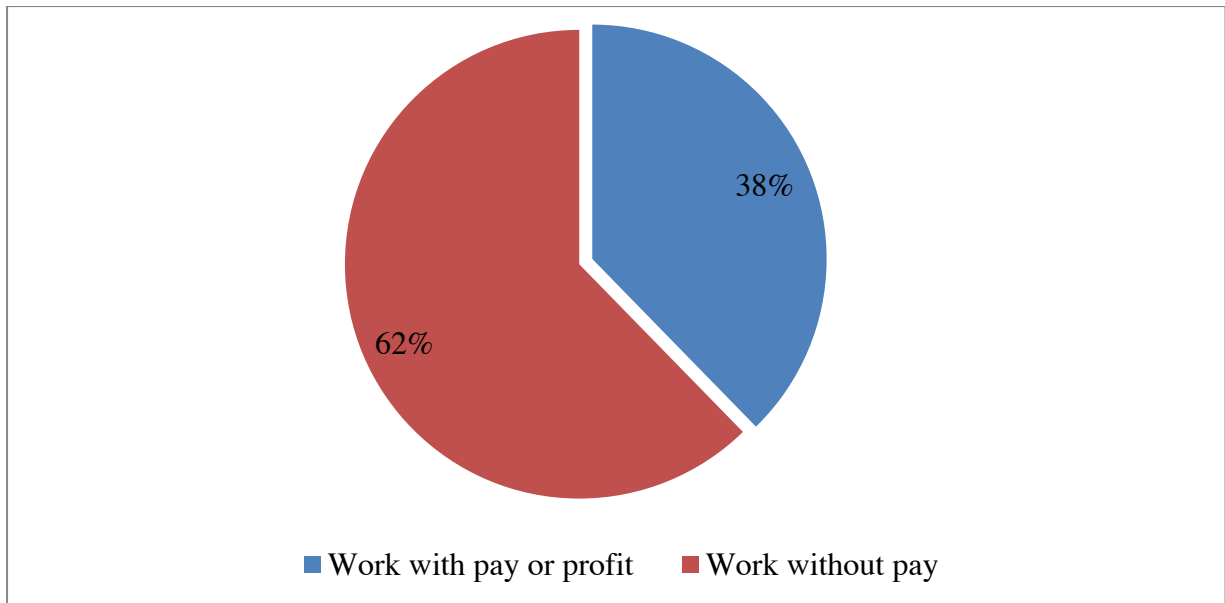
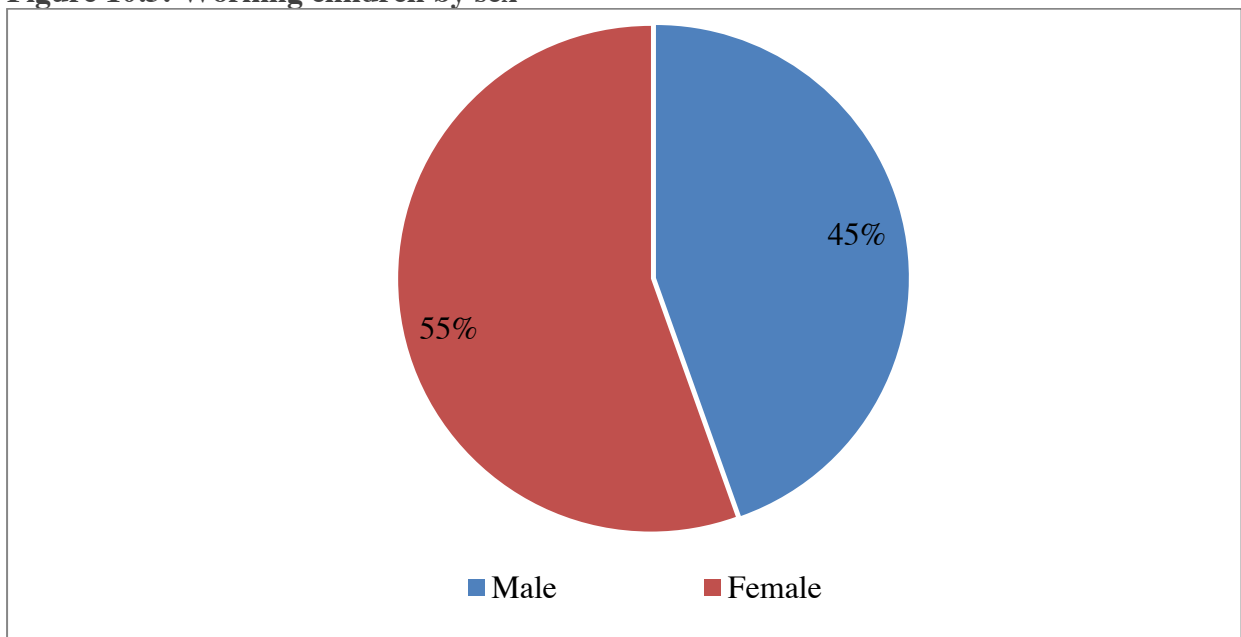
The following table shows the distribution of working children aged 14-17 years old by economic activity, according to working hours. The results shows that children who were working less hours (20 or less) were predominantly present in agriculture while those working excessive hours (46+ hours) were predominantly working for households as domestic workers.

Table 10. 3: Distribution of working children aged 14-17 years old by economic activity, according to weekly working hours

Economic activities	1-14 hrs	15-20 hrs	21-29 hrs	30-45 hrs	46+ hrs	Total
Agriculture forestry and fishing	93.6	88.9	83.1	73.8	14.7	78
Mining and quarrying	0.2	1	1.8	0.2	1.2	0.6
Manufacturing	1	0.3	2.3	0.9	0.1	0.9
Construction	0.6	0.9	0	2.6	6.5	1.7
Whole sale and retail trade; repair of motorcycles and Moto vehicles	2.4	7.1	4.5	4.5	6.8	4.2
Transportation and storage	0.6	1.9	1.4	0.9	3.2	1.2
Accommodation and food service activities	0.5	0	1	0	0	0.3
Financial and insurance activities	0	0	0	0	0.6	0.1
Other services	0.3	0	2.4	0.5	1.1	0.6
Activities of households as employers	0.7	0	3.6	16.6	65.8	12.5
Total	100	100	100	100	100	100
	159,036	45,701	26,475	63,540	45,065	339,816

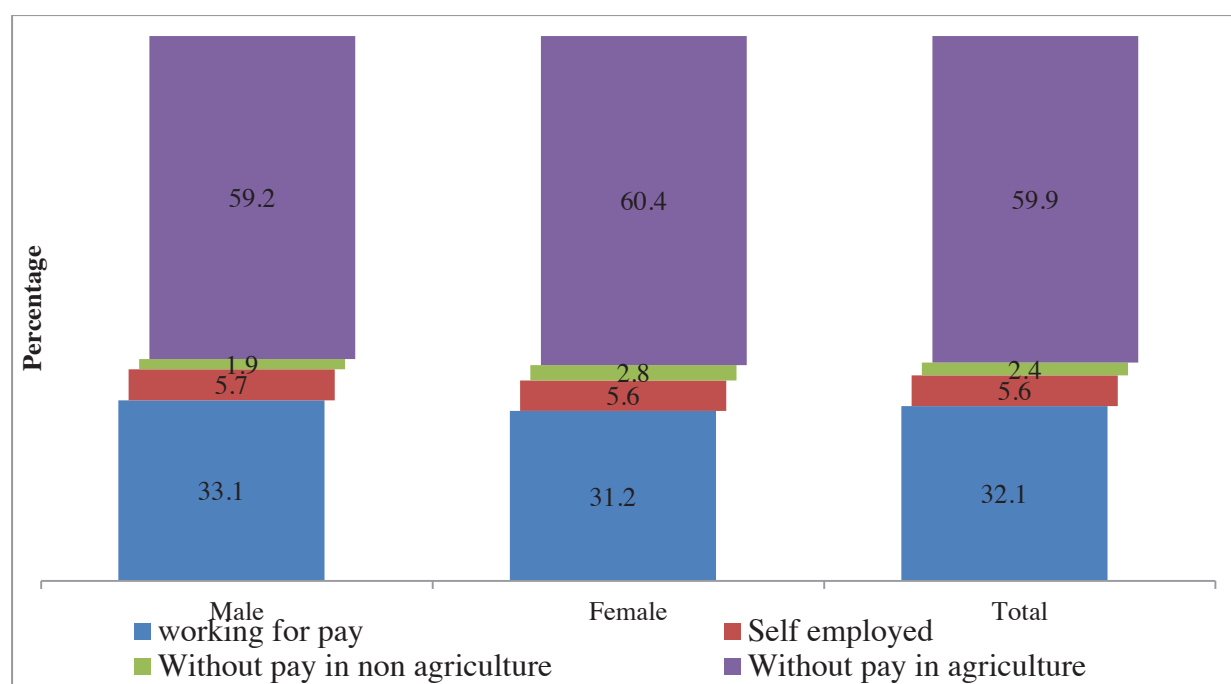
Source: LFS February 2017

The disaggregation of working children (5-17 years) by type of work (Figure 10.2), reveals that 62 percent of them were working without pay and 38 percent were working for pay or profit. Figure 10.3, shows that female constitutes the majority of working children (55 percent). In terms of type of work as presented in figure 10.4, male were engaged at higher rate in paying activities (33.1 percent) than female (31.2 percent). The proportion of female children worked in unpaid agricultural activities (60.4 percent) was slightly higher than the males (59.2 percent).

Figure 10.2: Working children by type of work**Figure 10.3: Working children by sex**

Source: LFS February 2017

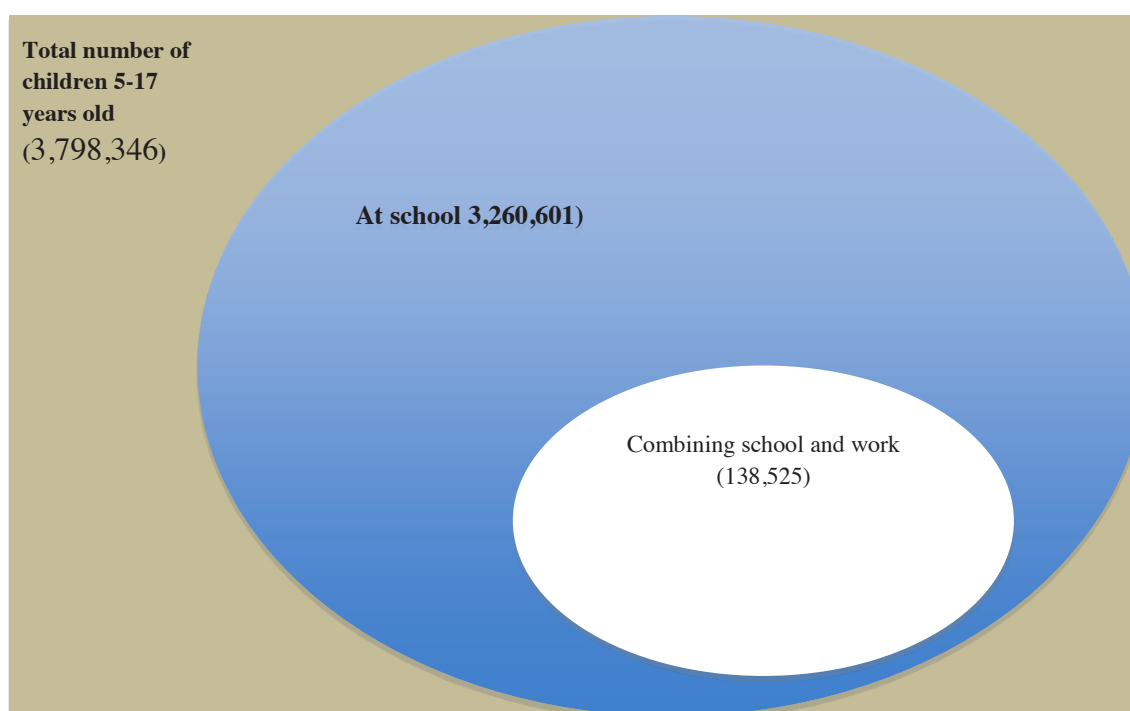
Figure 10.4: Percentage distribution of working children by sex and type of work



Source: LFS February 2017

As shown in figure 10.5, out of the total number of children 5 to 17 years old (3,798,000), the majority (3,260,600) representing 85.8 percent were attending school while 14.2 percent were not attending. Some 138,500 were combining school and work, and among those who were not studying, 213,000 were working.

Figure 10.5: School and work among children (5-17 years old)



Source: LFS February 2017

Chapter 11. Own-use producers

The international standards on statistics of work, employment and labour underutilization define *own-use producers* as all persons of working age who were engaged in own-use production work for at least one hour during the reference period. Own-use production comprises any activity to produce goods or provide services for own final use, interpreted to mean production where the intended destination of the output as self-declared is *mainly* for final use by the producer in the form of capital formation, or final consumption by household members, or by family members living in other households. In the case of agricultural, fishing, hunting or gathering goods intended mainly for own consumption, a part or surplus may nevertheless be sold or bartered.

Production of goods is within the SNA production boundary and covers: (i) producing or processing for storage agricultural, fishing, hunting and gathering products; (ii) collecting or processing for storage mining and forestry products, including firewood and other fuels; (iii) fetching water from natural and other sources; (iv) manufacturing household goods (such as furniture, textiles, clothing, footwear, pottery or other durables, including boats and canoes); (v) building, or effecting major repairs to, one's own dwelling, farm buildings, etc.

Provision of services is within the SNA general production boundary and covers (i) household activities of accounting and management, purchasing or transporting goods; (ii) preparing or serving meals, household waste disposal and recycling; (iii) cleaning, decorating and maintaining one's own dwelling or premises, durables and other goods, and gardening; (iv) childcare and instruction, transporting and caring for elderly, dependent or other household members and domestic animals or pets, etc.

Information about participation and time-spent in own-use production work is essential to inform a wide range of policies including those targeting employment creation in rural areas, poverty reduction, food security, and provision of a wide range of services, including water supply, child and elderly care, domestic services, etc. It is also essential for addressing gender issues in the world of work and for better understanding participation and access to labour markets, and related issues such as work-life balance.

The February 2017 LFS questionnaire contained 7 questions on time spent on different types of own-use production work excluding production or processing of food stuff. The results are shown in Table 11.1. The data indicate that about 5,361,035 persons 16 years old and over were engaged in at least one type of own-use production work during the reference week, representing 80 percent of the total working age population. They devoted on average 19.1 hours per week on these activities. The type of activity in which the highest numbers of persons were engaged was “doing household chores including shopping, preparing meals”, covering 60.4 percent of the working age population and involving on average 9.2 hours per week, followed by “fetching water for the household, including travel time” (44.3 percent of the working age population) and on average 4.0 hours per week.

Table 11.1: Average time spend per week on own-use production

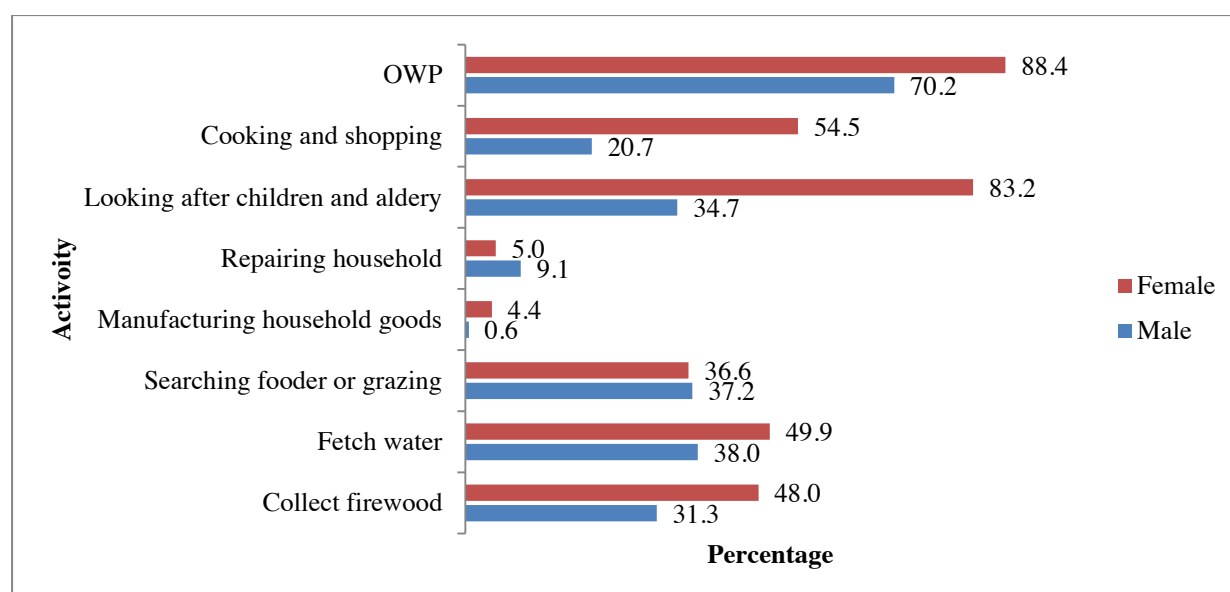
	Number of persons	Percent (%)	Average number of hours
Population 16 years old and over engaged in some type of own-use production work	5,361,035	80	19.1
Collecting firewood for the household including travel time	2,697,329	40.2	4.6
Fetching water for the household, including travel time	2,974,653	44.3	4.0
Searching for fodder or grazing for the household's animals	2,472,350	36.9	7.5
Constructing your dwelling, making major repairs on it, farm buildings, private roads, or wells	173,348	2.6	5.5
Manufacturing household goods for own or family use	461,592	6.9	4.8
Doing household chores including shopping, preparing meals	4,058,772	60.5	9.2
Looking after children and elderly	2,594,425	38.7	7.3
Own-use production work among the labour force			
Among labour force	2,851,376	42.4	18.1
Among employed	2,326,555	34.6	17.7
Among unemployed	524,820	7.8	19.9

Source: LFS February 2017

The table also shows that some 2,851,376 persons combined labour force activity with own-use production work. The average time spent per week on own-use production work by labour force participants was 18.1 hours. As expected, the average number of hours of own-use production work was lower among the employed and relatively higher among the unemployed.

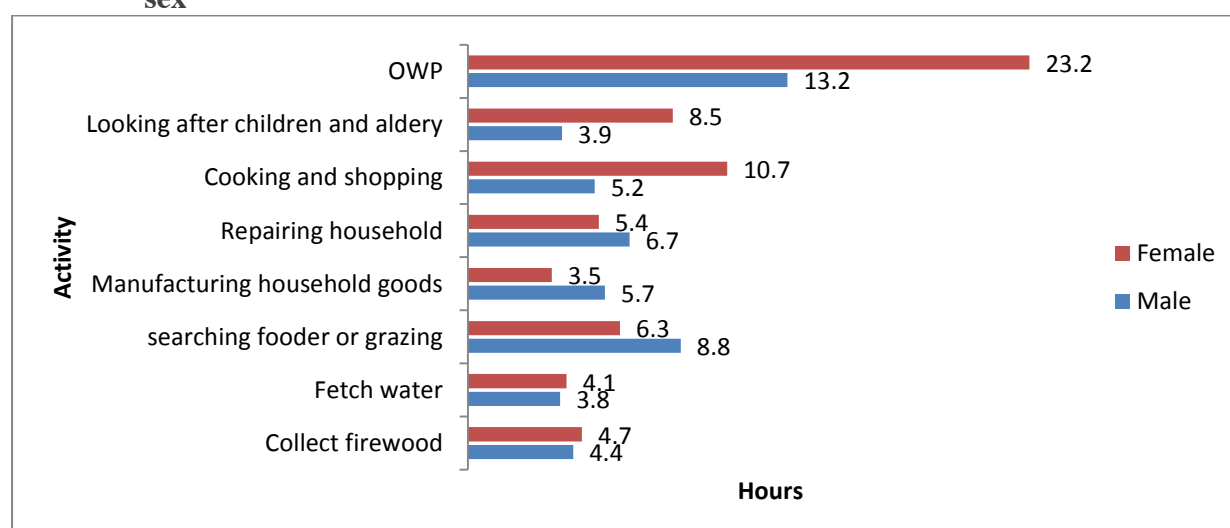
Using data on total hours usually worked at main and secondary jobs of the employed population, the combined hours of work in employment activity and own-use production work of the employed population was about 52.7 hours per week.

Figure 11.1 below illustrates the proportion of working age population who were engaged in own use production activities by sex. Females were more engaged in own-use production (88.4 percent) than males (670.2 percent). Except for construction of own dwelling, the proportion of working age females engaged in other type of own use production activities was higher than the proportion of working age males.

Figure 11.1: Proportion of working age population who are own use producers by sex

Source: LFS February 2017

Figure 11.2 presents the average number of time spent per week in own use production of different services by sex. The time spent by females (23.2 hours) was almost twice as high as the time spent by males (13.2 hours) in those activities. The activities in which females were spending more time were cooking and shopping (10.7 hours) followed by looking after children or elderly (8.5 hours) while males were spending more time in searching for food or grazing (8.8 hours) and repairing own houses (6.7 hours).

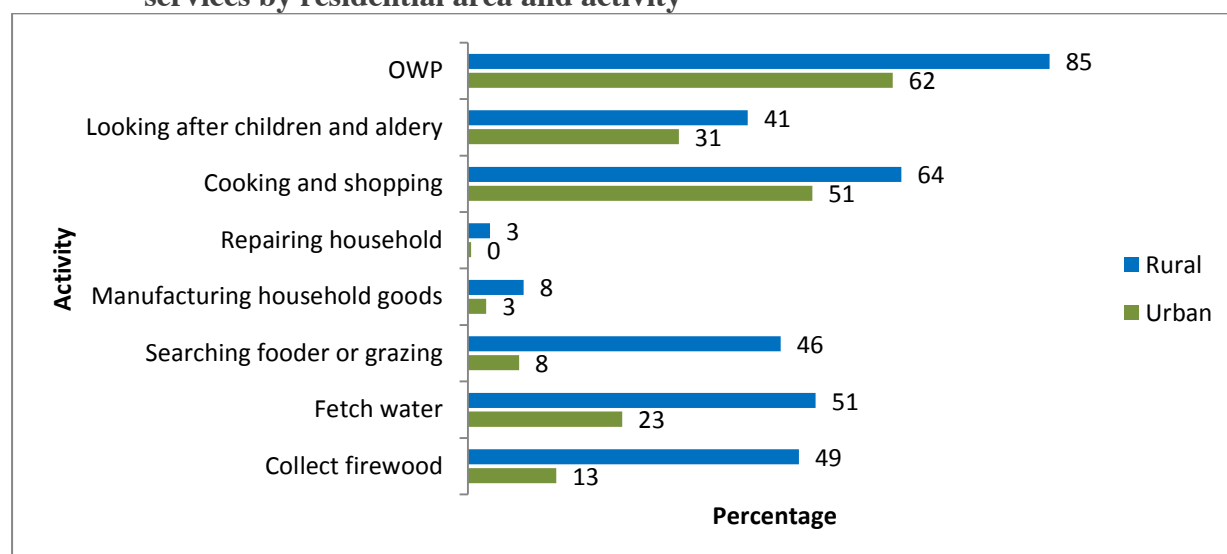
Figure 11.2: Average number of hours spent in own use production activities by type and sex

Source: LFS February 2017

Considering the area of residence, own use services activity was more predominant in rural area (85.3 percent) as compared to urban areas (62.4 percent). More than half of the working age population was engaged in cooking and shopping, and in fetching water in rural areas. In urban

areas, the activities that involve an important proportion of working age population were also cooking and shopping, and fetching water.

Figure 11.3: Proportion of working age population engaged in Own use production of services by residential area and activity



Source: LFS February 2017

Subsistence foodstuff producers constitute an important subgroup of persons in own-use production work. They are defined as all those who performed any of the activities specified above as *production of goods* in order to produce foodstuff from agriculture, fishing, or gathering that contribute to the livelihood of the household or family. The definition excludes persons who engaged in such production as recreational or leisure activities.

The February, 2017 LFS questionnaire included a section on subsistence agriculture (section H) with 11 questions on subsistence foodstuff production. The basic results are shown in Table 11.2 below. Among the population 16 years old and over, about 3,578,000 persons were engaged in subsistence foodstuff production during the last month from the date of interview, representing 53.3 percent of the total working age population. They have spent on average about 20.3 hours per week on this activity. The average number of hours of work on subsistence foodstuff production among the employed was 16.7 hours per week. It was significantly higher among persons not in employment (22.8 hours per week).

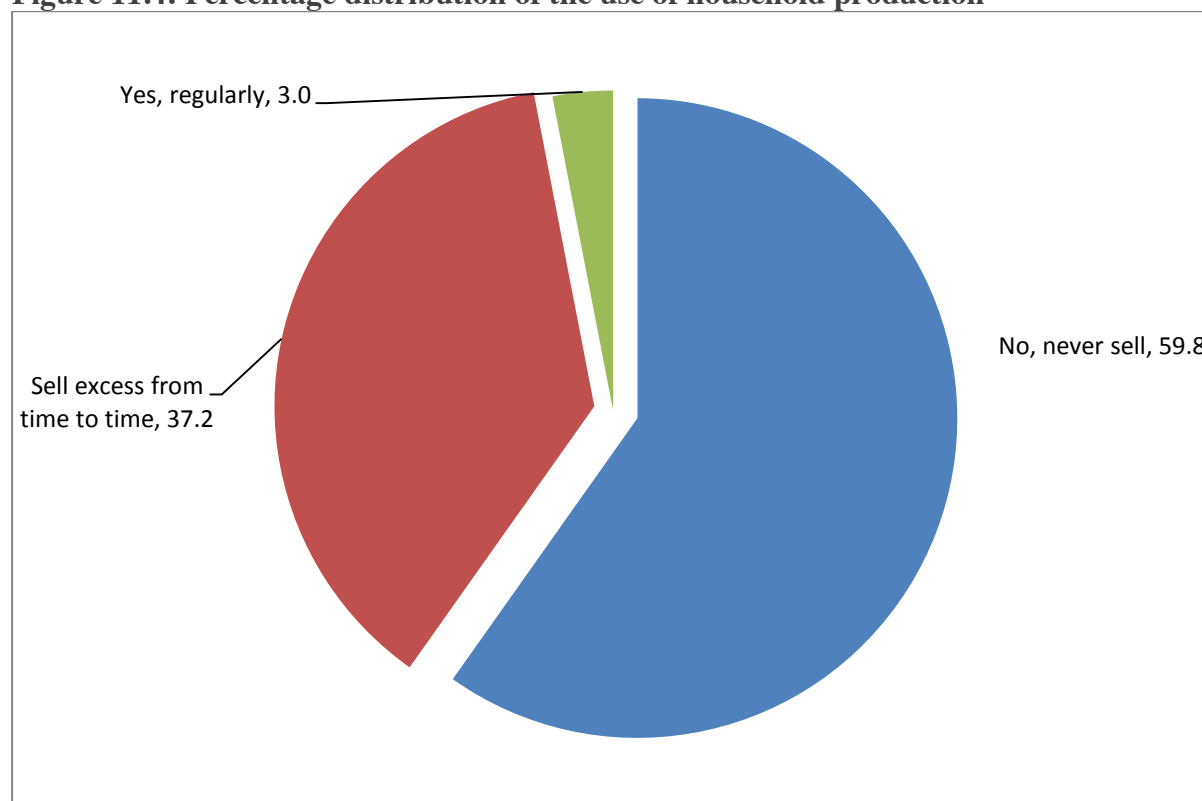
Table 11.2: Average time spend per week on subsistence foodstuff production

	Number of persons	Percent %	Average number of hours
Among total population 16 years old and over	3,578,228	53.3%	20.3
Among persons in employment	1,447,220	26.0%	16.7
Among persons not in employment	2,131,008	31.8%	22.8

Source: RLFS, February 2017

The survey collected additional information on subsistence foodstuff production including on whether any part of the products were sold in the market and the net amount the household obtained from agricultural activities last season as well as the number of paid employees engaged in the activities in addition to family members.

Figure 11.4: Percentage distribution of the use of household production

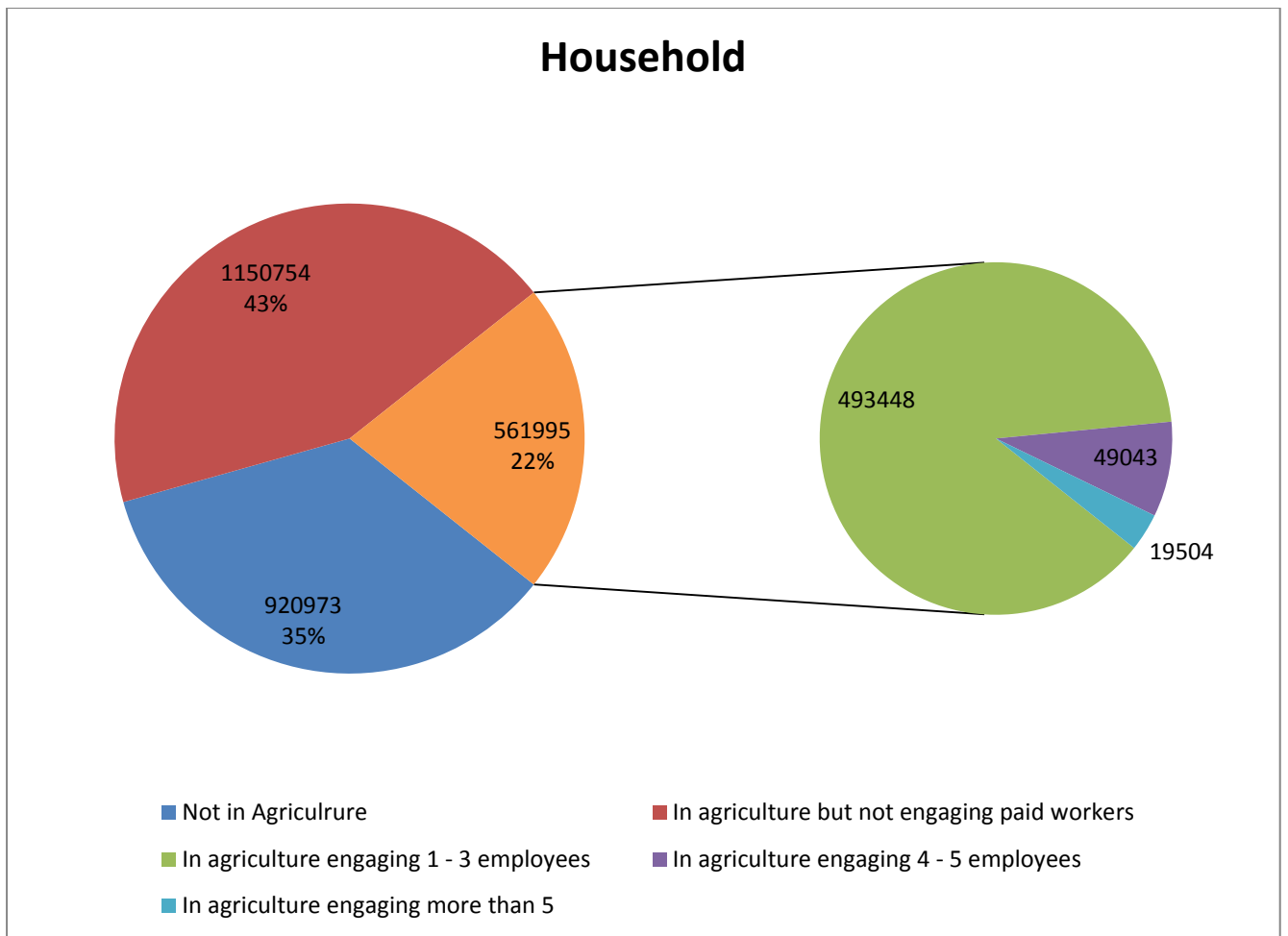


Source: RLFS, February 2017

Figure 11.4 above shows that 58.9 percent of household in Rwanda did not sell any production in general. As expected in a country with predominant agriculture, production was directly used for the household. Only 3.0percent of households were selling their production on a regular basis.

The February 2017 LFS estimated 2,633,722 households of which 65.0 percent participated mainly in subsistence agriculture. The remaining proportion of households (35 percent) did not participate in the subsistence agriculture. Among the households which participated in subsistence agriculture, 561,995 of them, corresponding to 21 percent of all households, employed regularly or sometimes agriculture labourers. The results show that most of households employed between 1 to 3 persons excluding other members of the household (88 percent).

Figure 11.5: Participation of paid workers in subsistence agriculture

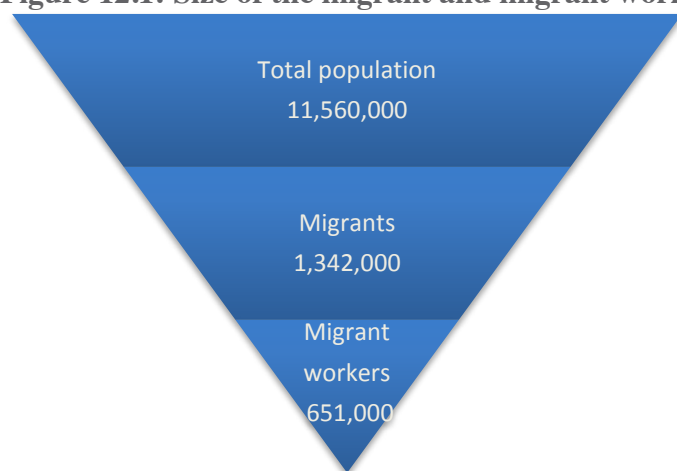


Source: LFS, February 2017

Chapter 12. Migrant workers

According to the results of the LFS February 2017 shown in Figure 12.1 below, the stock of the migrant population at the time of the survey was 1,342,000 persons, representing 10.7 percent of the total population. Among them, an estimated 651,021 were migrant workers. A migrant was defined to be any current resident, member of a private household in Rwanda who has changed his or her district or country of usual residence in the last five years. A migrant worker was defined to be a migrant in the sense described above who was in the labour force of the country, i.e., currently engaged in an employment work or looking and available for employment.

Figure 12.1: Size of the migrant and migrant workers populations



Source: LFS February 2017

The migrant population includes the internal migrants and the international migrants. Similarly, the migrant workers population includes the internal migrant workers and the international migrant workers. The internal migrant and internal migrant workers were those who have moved from one district of Rwanda to another during the last five years, and the international migrant and international migrant workers were those who have moved from outside the country to Rwanda in the last five years. The bulk of the migrants were internal migrants (1,242,424). The international migrants were 99,751. The share of international migrants in total population of Rwanda (0.9 percent) was significantly lower than the world average (3.2 percent).¹⁷

There were relatively more women (52.0 percent) than men (48.0 percent) among internal migrants of working age 16 years old and over, while the reverse is true among international migrants. The percentage of women among international migrants of working age was 48.1 and the percentage of men was 51.9 percent.

The percentage of migrants of working age living in the urban areas was significantly higher than the national average, both for internal migrants and international migrants. The proportion

¹⁷ International Labour Office, *ILO global estimates on migrant workers. Results and methodology. Special focus on migrant domestic workers*. Labour Migration Branch, Conditions of Work and Equality Department and Department of Statistics, 2015.

of both internal and international migrants in urban areas were around 55.5 percent, substantially more than double the corresponding urban rate at the national level (23.4 percent).

Table 12.1 shows the distribution of internal migrants from the province prior residence to the province of current residence, and Table 12.2 shows the distribution of international migrants from the country of prior residence to the province of current residence.

Table 12.1: Province of current residence and province of last move of internal migrants.

		Province of current residence					
		Kigali	South	West	North	East	Total
Province of last move	City of Kigali	159,678	75,160	26,000	26,601	77,468	364,907
	South	110,455	102,041	13,604	4,605	58,418	289,122
	West	70,618	20,662	56,729	14,162	48,409	210,580
	North	38,337	7,637	6,620	27,320	82,929	162,843
	East	71,719	12,600	8,406	13,983	108,263	214,971
	Total	450,807	218,099	111,359	86,671	375,488	1,242,424

Source: LFS February 2017

The diagonal elements of Table 12.1 show that about one-third of the internal migrants moved from one district to another district in the same province. The total numbers in the diagonals of the table is 454,031 corresponding to 36.5 percent of the total internal migrant population. The majority or about two-third of the internal migrants moved from one province to another. From the off-diagonal elements of Table 12.1, one can observe that the migration corridor with the largest movement was from the Southern Province to the City of Kigali (110,455 migrants), followed by the movement from the Northern Province to the Eastern Province (82,929) and the movement from the City of Kigali to the Eastern Province (77,468).

Table 12.2: Province of current residence and country of last move of international migrants.

		Province of current residence					
		Kigali	South	West	North	East	Total
Country of last move	Burundi	8424	5293	444	0	5656	19816
	Congo-Kinshasa	1,738	3,271	25,944	1,238	2,167	34,359
	Kenya	2,316	0	0	0	0	2316
	Tanzania	961	2221	0	3,164	3,962	10308
	Uganda	5433	459	2674	5,591	13,173	27,330
	Rest of Africa	2,183	0	0	0	0	2,183
	Other countries	3439	0	0	0	0	3439
	Total	24,494	11,245	29062	9,993	24,958	99,751

Source: LFS February 2017

It is interesting to note that the City of Kigali was a major destination as well as a major province of origin of migrant workers. More than one-third (36.3 per cent) of the internal migrants currently reside in the City of Kigali. Similarly, more than one-fourth (29.4 percent) of the internal migrants moved from a district of the City of Kigali to another district inside or outside the City of Kigali in the last five years. The Eastern province was the second pole of

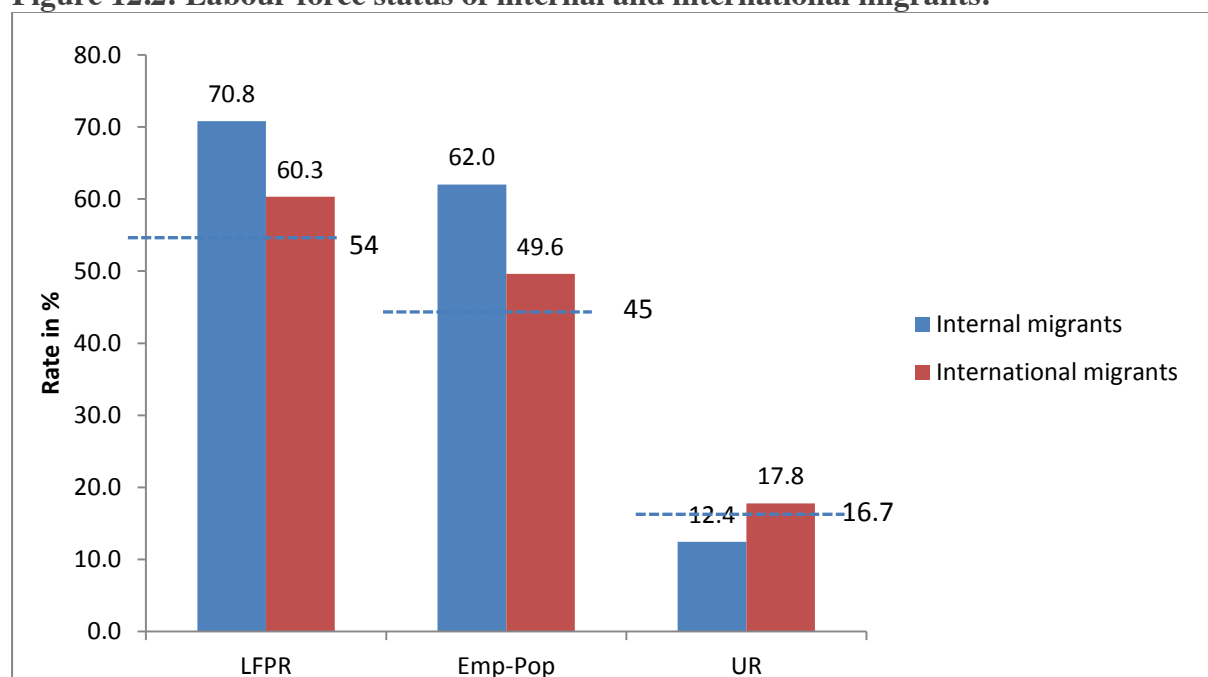
attraction as a destination province while the Southern province was the second highest migrant-sending province after the City of Kigali.

In terms of international migration, most migrants were coming from Congo-Kinshasa DRC and Uganda (34.4 and 27.4 percent, respectively), followed by Burundi (19.9 percent) and Tanzania (10.3 percent). The Eastern province was also the province of destination of the highest number of international migrants (25.0 percent) followed by City of Kigali (24.6 percent).

A large part of the migrant population is migrant workers. Statistics on this category of migrants are particularly important. The management of labour migration and the protection of migrant workers, especially, their labour rights and the promotion of safe and secure working environments are of priority concerns of many countries.

Figure 13.2 shows the summary indicators of the labour force status of internal and international migrants according to the results of the RLFS February 2017.

Figure 12.2: Labour force status of internal and international migrants.



Source: LFS February 2017

Notes: LFPR = Labour force participation rate; Emp-Pop = Employment-to-population ratio; and UR = Unemployment rate. Dotted lines correspond to corresponding national rates or ratio.

It can be observed that the share of the working age migrants engaged in the labour force is significantly higher than the general population as a whole. The labour force participation rate of internal migrants was 70.8 percent and that of the international migrants was 60.3 percent, both significantly higher than the overall labour force participation rate (54.0 percent). Similarly, the employment-to-population ratio of internal migrants (62.0 percent) and that of the

international migrants (49.6 percent) were higher than the overall employment-to-population ratio of the country (45.0 percent). It can also be observed that the unemployment rate of internal migrant workers (12.4 percent) was below the national unemployment rate (16.7 percent) while the unemployment rate international migrant workers (17.8 percent) was slightly higher than the national unemployment rate (16.7 percent).

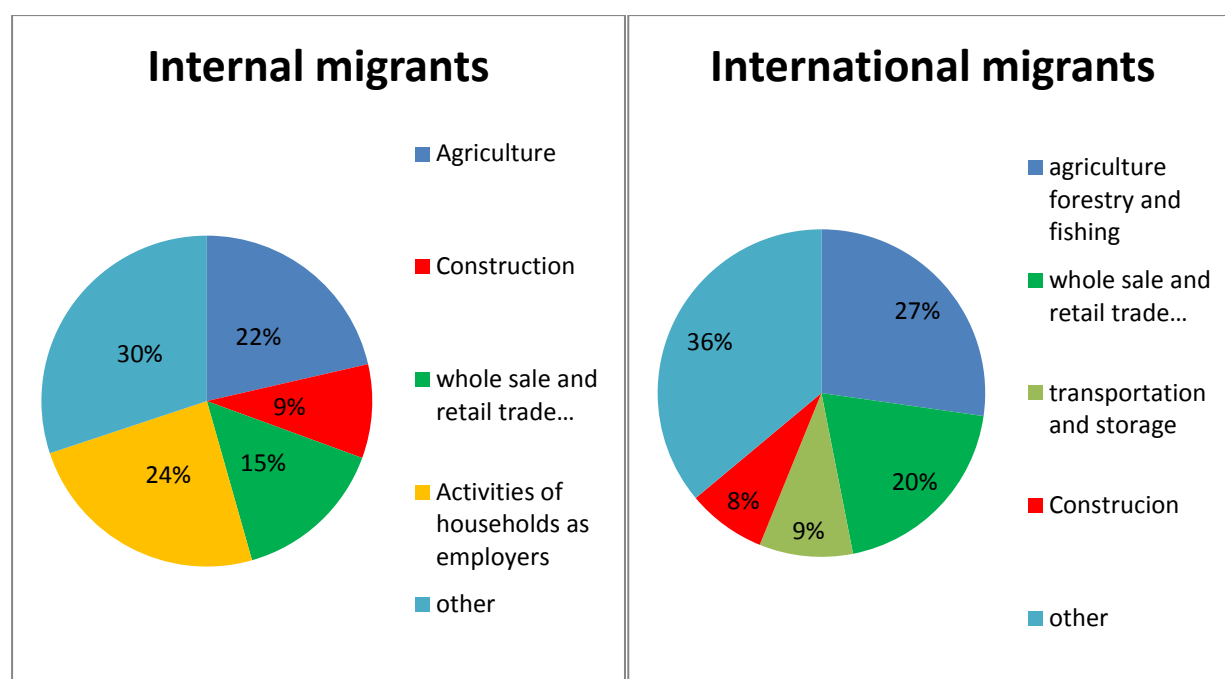
These results are in line with expectation as migration is often motivated by economic and labour market factors. According to the results of the RLFS February 2017, the main reason to move from the previous place of residence of the working age migrants was to look for work (25.0 percent of respondents) followed by coming back to land (14.0 percent). New job , living with relatives and accompanying parents were next in relative size (10.3, 10.3 and 8.1 percent respectively).

It is also instructive to note that the unemployment rate was lowest (about 1 to 3 percent) among migrant workers who moved from their previous place of residence because of a new job, job transfer or family quarrel and highest (about 27 to 39 percent) among those who moved for personal reasons such as Parent's move, living with relatives or studies. Correspondingly, the employment-to-population ratio was highest among migrant workers who moved for labour market reasons than those who moved for personal, family or other reasons.

More detailed analysis of the relationship between labour force status and reason of migration of migrant workers may be carried out based on the data presented in Table 54 of the Statistical Annex. One particular result that should be mentioned here is the very high employment-to-population ratio (85.5 percent) and the relatively low unemployment rate (7.1 percent) of migrants whose main reason of migration was to look for work. This result means that many of these migrants found employment following their move, although not all.

The pattern of employment of migrant workers in terms of branch of economic activity is shown below for internal and international migrants, separately. The branch of economic activity with the highest number of internal migrants was activities of households as employers (24.3 percent). Compared with the national share of persons engaged in households as employers (7.1 percent). the results show also that the percentage of agriculture employment among the internal migrant workers (21.4 percent) was lower as compared to the national average (45.9 percent).

The shares of internal migrants engaged in wholesale and retail trade and motor vehicle repair (15.0 percent) and in construction (9.2 percent) are about the same as the corresponding national average (14.9 and 7.9 percent respectively), suggesting that migrant workers in these two branches of economic activity were engaged in the same activity prior and after migration.

Figure 12.3: Employed migrant workers by branch of economic activity.

Source: LFS February 2017

Turning to international migration, the data show that the international migrant workers were mostly engaged in agriculture (27 percent), wholesale and retail trade and motor vehicle repair (20 percent), transport and storage (9 percent) and construction (8 percent). In the branches of economic activity presented in figure 12.3, the share of international migrant workers was above the corresponding national share of employment in 'Wholesale and retail trade repair of motor vehicles and motorcycles' and 'transportation and storage'. This indicates that international migrant workers were proportionally more represented in those activities. The share of international workers in wholesale and retail trade was 20 percent against 15 percent for the employed population as a whole and 9 percent against 4 percent at the national level in transport and storage.

Finally, it should be mentioned that migrant workers were defined here in terms of their participation in the labour force, i.e., engaged in or looking for work for pay or profit. Many other migrants were also engaged in subsistence foodstuff production or other own-use production of goods, not considered as employment work under the new international standards.

According to the RLFS February 2017, the proportion of internal migrants of working age, engaged in subsistence foodstuff production, not counted in labour force was 25 percent. The proportion among the international migrants was 20 percent. Both figures are considerably lower than the corresponding national percentage of 53 percent, indicating that migrants are relatively less engaged in subsistence foodstuff activity than the working age population at large. One implication of these results is that the higher labour force participation rate of migrants noted earlier in this chapter would be dissipated if the participation rate would be calculated on the basis employment work as well as subsistence foodstuff production work.

Chapter 13. Workers with disabilities

The National Institute of Statistics of Rwanda has pursued the recommendation of the UN formed Washington Group on Disability Statistics and included in the Rwanda labour force survey the recommended questions for identifying people with disabilities and their disaggregation by labour force status and other demographic and economic characteristics. Data collection on disabilities and on workers with disabilities aims to contribute to the UN Sustainable Development Goals (SDG), a universal and ambitious plan of actions for ending poverty and hunger by 2030, leaving no one behind including people with disabilities. Such disaggregated statistics are critical for monitoring progress toward the achievement of the SDGs.

The sample size of the LFS February 2017 is considerably larger and it is considered sufficient for providing preliminary estimates of workers with disabilities and their broad characteristics. According to the results of the LFS February 2017, there were 394,963 persons aged five years old and over with disabilities, in Rwanda representing a prevalence rate of 4 percent. The relative standard error of the estimate is approximately 3.5 percent, corresponding to a margin of error of about +/- 34,600.

The recommended set of questions on disability was administered to persons five years old and over, and therefore the LFS results refer to this age category. In line with recommendations of the Washington Group on Disability Statistics, a person with disability was defined as any individual five years old and over who responded to have “a lot of difficulty” or “cannot do it at all” with respect to one or more of the following six conditions: “seeing, even if wearing glasses”, “hearing, even if using a hearing aid”, “remembering or concentrating”, “walking or climbing steps”, “self-care such as washing all over or dressing”, “communicating, for example, understanding or being understood”.

Table 13.1 shows the estimated number of persons with disabilities by type and degree of disability. The table also gives data on the prevalence rate in relation to the total population five years old and over.

Table 13.1: Prevalence of disabilities by type of disability.

Type of disability	Total persons with disability		With a lot of difficulty		Cannot do at all	
	Number	Rate	Number	Rate	Number	Rate
Total	394,963	4.0	342,053	3.4	52,910	0.5
Seeing	123,528	1.2	117,201	1.2	6,327	0.1
Hearing	76,599	0.8	63,569	0.6	13,030	0.1
Walking, climbing	161,830	1.6	149,592	1.5	12,237	0.1
Remembering	90,509	0.9	75,885	0.8	71,418	0.7
Washing, dressing	57,807	0.6	35,833	0.4	21,974	0.2
Communicating	41,854	0.4	14,226	0.1	27,628	0.3

Source: LFS February 2017

Note: Details do not add up to totals due to the existence of persons with more than one disability.

The disability with the highest prevalence rate was difficulty in walking or climbing steps, affecting 161,830 persons or 1.6 percent of the population 5 years old and over. Almost as frequent are the disability in seeing even with glasses, affecting 123,528 persons or 1.2 percent of the population 5 years old and over, and the disability in remembering or concentrating, affecting 90,509 persons or 0.9 percent of the population 5 years old and over. The data show that there were about 6,327 persons who cannot see at all, roughly one per thousand persons, and 71,418 who cannot remember or concentrate at all, representing about seven per thousand persons.

About 95,739 persons had more than one type of disability, 16,643 persons had difficulty in seeing as well as difficulty in walking or climbing steps. An estimate of 11,649 persons had difficulty in walking or climbing steps as well as remembering or concentrating, and 10,466 persons had difficulties in both remembering or concentrating and washing all over or dressing.

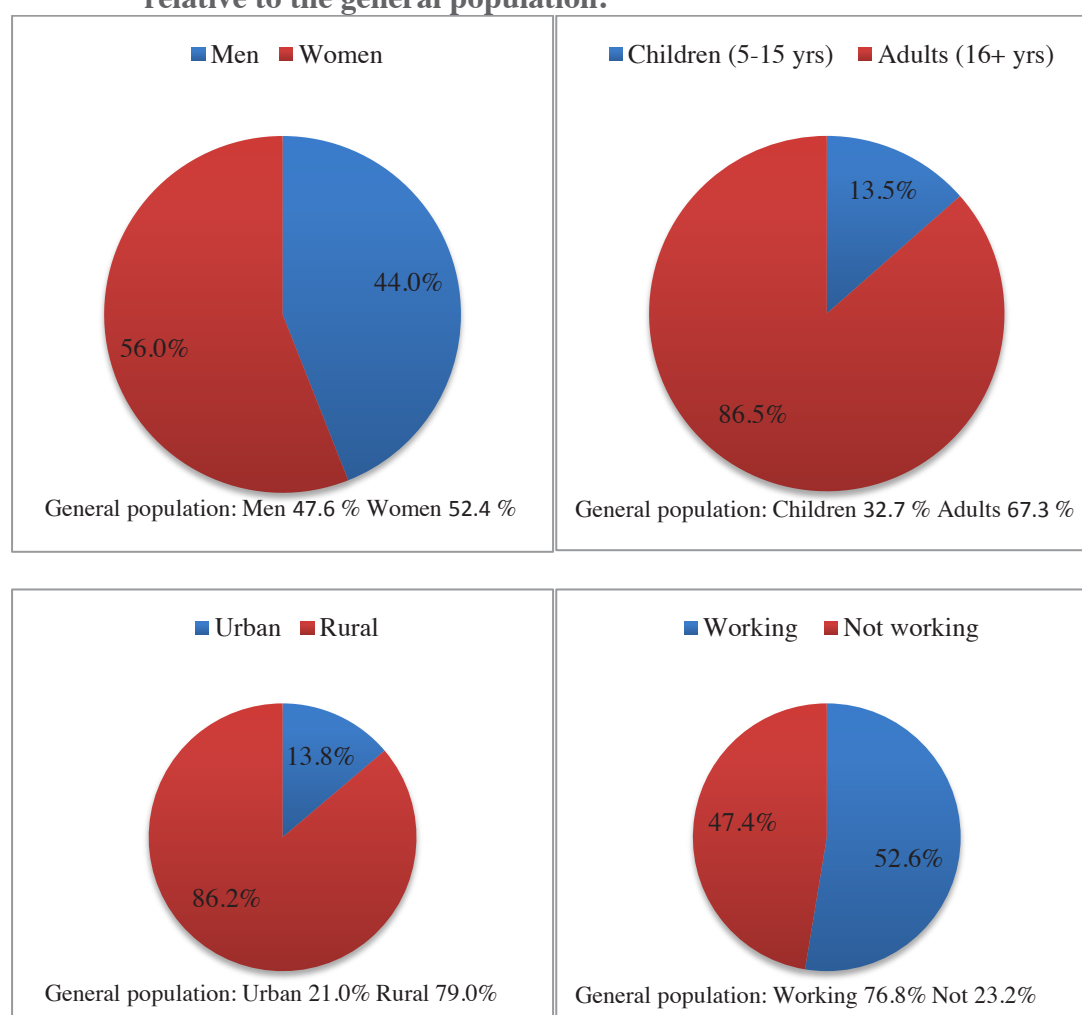
There were also persons who suffer from a combination of three or more difficulties. In particular, there were about 8,714 persons who suffer from difficulties in walking or climbing steps, remembering or concentrating and washing all over or dressing. This result is in line with the observation that certain disabilities are correlated with age and therefore it is not surprising to find these persons form the largest category of persons with multiple disabilities. Overall, every person with disability had on average 1.4 disabilities.

The data collected in the survey indicate that women were relatively more affected by disabilities across all types of disabilities except for difficulty with communicating for which the number of men was relatively higher than women. The percentage of women was particularly high among persons with seeing disabilities (60.3 per cent) and remembering and concentration (66.6 percent). In general, as shown in Figure 13.1, women are disproportionately affected by disabilities. The percentage of women among persons with disabilities was 51.8 percent, while women formed 52.4 percent of the population 5 years old and over.

The data shown in Figure 13.1 also indicate that adults of working age are disproportionately affected by disabilities. The percentage of persons 16 years and over among persons with disabilities was 86.5 percent while the percentage of persons 16 years and over among the general population 5 years old and over was 67.3 percent. This indicates that disability is more predominant among adults compared to children.

Similarly, the data show that rural areas were disproportionately affected by disabilities. The percentage of persons 16 years and over with disabilities living in rural areas was 83.5 percent while the rural population 5 years old and over was only 79.0 percent of the general population 5 years old and over.

Figure 13.1: Demographic characteristics and work status of persons with disabilities relative to the general population.



Source: LFS February 2017

Note: General population refers here to the size of the population five years old and over according to the LFS February 2017.

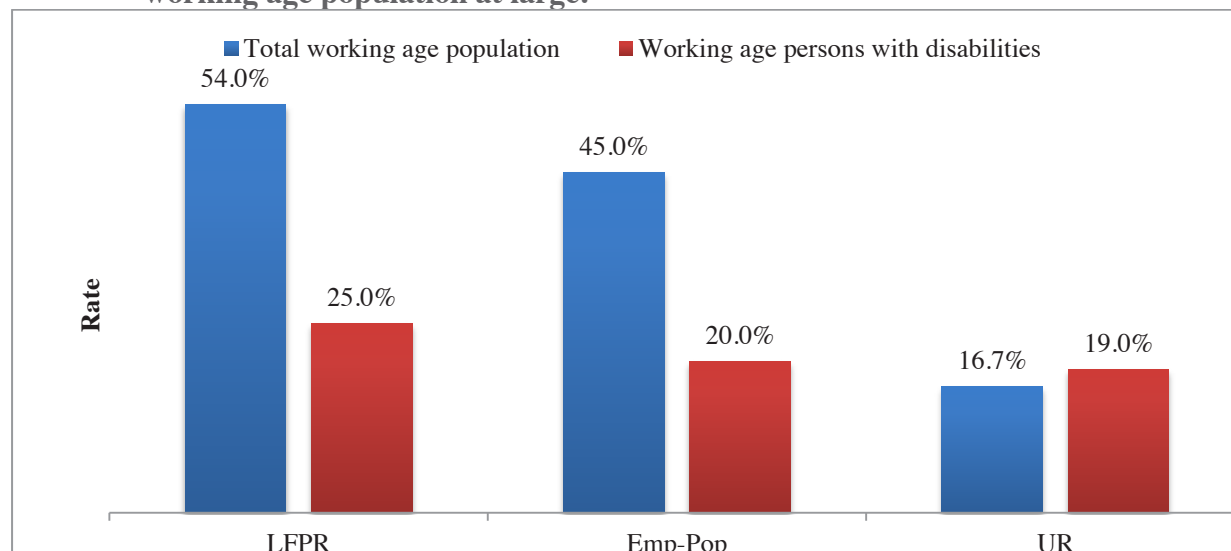
Also, as expected, the data shown in Figure 13.1 indicate that the proportion of working age persons with disabilities who are not working is 47.4 percent relatively higher than the share of persons who are not working in the general working age population (23.2 percent). Work is defined here in a broad sense covering not only employment work but also work on subsistence foodstuff production.

In terms of labour market activity, the data show that despite their handicap there is a relatively high number of persons of working age with disabilities who are engaged in the labour market, either working for pay or profit, or looking for paid jobs or self-employment.

Figure 13.2 compares the main labour market indicators for persons 16 years old and over with disabilities and the corresponding indicator for the working age population at large. The results show that 25.0 percent or more than one-fourth of the working age persons with disabilities are labour force participants. The corresponding rate for the working age population at large is 54.0

per cent. About 20 percent or slightly more than one-fifth of the working age persons with disabilities are engaged in employment work for pay or profit. The corresponding ratio for the working age population at large is 45 percent.

Figure 13.2: Main labour force indicators: Working age persons with disabilities versus working age population at large.



Source: LFS February 2017

Note: LFPR = labour force participation rate; Emp-Pop = Employment-to-population ratio; and UR = Unemployment rate.

It is instructive to note that the data from the LFS February 2017 show that the unemployment rate of persons with disabilities is significantly higher than the unemployment rate of the working age population at large (19.0 percent versus 16.7 percent). This result is in line with the expectation that persons with disabilities have more difficulties in obtaining jobs than the working age population at large.

The analysis of employment status of the working age persons with disabilities by type of disability (presented in Table 6 of the Statistical Annex) shows that the employment-to-population ratio is highest among persons with seeing disability (20.0 percent) and lowest among persons with difficulty in washing all over and dressing (6 percent). Persons with difficulty in washing all over and dressing are also those with the lowest unemployment rate (14 percent) and labour force participation rate (7 percent), reflecting their age pattern. Many of them being elderly, they are engaged in labour market activity, neither working for pay or profit or looking for employment. As expected, persons with communicating disability have the highest unemployment rate (37 percent) followed by persons with seeing disability (20 percent) and persons with remembering disability (20.4 percent).

More detailed analysis of workers with disabilities by hours of work, status in employment, occupation and branch of economic activity is possible using the RLFS February 2017. However, the limited number of observations at this level of detail is leading to estimates with low precision, not undertaken in the present report.

Chapter 14. Main indicators at district level

The data from the LFS February 2017 combined with those of LFS August 2016 provide the enlarged sample base to calculate district-level estimates of the main labour force indicators. As mentioned in Annex B, the survey is designed to provide semi-annual national estimates of employment and labour underutilization with specified precision, and annual district-level estimates by pooling together the semi-annual data of each calendar year. The timing of the semi-annual rounds are based on the seasonal variations of labour force activities in Rwanda, in particular, the high and low seasons of agriculture activities, in February 2017 and August 2016, respectively. Exceptionally in the first 12-month implementation of the survey, district-level data are compiled using combined data from survey rounds in different calendar years. From 2017 onward, the district-level data will be released using the combination of data from survey rounds in the same calendar year. The design should also permit in time to measure the seasonality in the labour market of the different districts.

This chapter analyses the labour force participation and unemployment rates of districts. More detailed district-level data are presented in the statistical annex of this report. The main results are first examined under the new international standards (19th ICLS, 2013), followed by comparison with the old definitions (13th ICLS, 1982). The chapter concludes that there is a relationship between labour force participation and the concentration of market-oriented agriculture of districts as well as a relationship between unemployment and the level of job opportunity of districts.

14.1. Labour force participation

The following table (Table 1) shows the labour force participation and unemployment rates of the thirty districts of Rwanda based on the new and old international standard definitions of labour force and unemployment, respectively. Based on the new international standards adopted in 2013, the national average labour force participation rate was 52.4 per cent in August 2016 and February 2017. This means that more than half of the working age population 16 years old and over were in employment, engaged in an activity to produce goods or services for pay or profit, or were unemployed, currently available and actively seeking an employment job during the specified reference period. This definition excludes persons engaged mainly in own-use production work unless they were otherwise available and actively seeking work for pay or profit.

The national average masks considerable variation among districts. The highest labour force participation rates are from Gasabo (66.7 percent), Kicukiro (66.3 percent), and Nyarugenge (65.6 percent), all three districts of the City of Kigali are characterized with urban agglomerations and large market-oriented activities. The districts with the second highest labour force participation rates are Nyabihu (64.0 percent) and Rubavu (59.5 percent) in West province, Huye (56.2 percent), Nyagatare (55.8) together with Musanze (55.4 percent). The last four districts are among the designated development secondary cities in Rwanda. The next in line district is Bugesera (57.5 percent) where many people living in nearby Kigali work.

Table 14. 1 Labour force participation rate and unemployment rate by district

	Labour force participation rate		Unemployment rate	
	New definition ¹	Old definition ²	New definition ¹	Old definition ²
Total	52.4%	78.2%	17.7%	4.9%
Nyarugenge	65.6%	70.2%	22.5%	18.7%
Gasabo	66.7%	75.8%	17.6%	12.5%
Kicukiro	66.3%	69.7%	15.9%	13.7%
Nyanza	44.3%	77.5%	7.5%	1.3%
Gisagara	52.2%	82.0%	12.3%	1.3%
Nyaruguru	34.9%	74.2%	14.7%	1.9%
Huye	56.2%	77.2%	14.5%	4.8%
Nyamagabe	55.0%	82.8%	10.3%	1.4%
Ruhango	49.8%	77.3%	22.0%	4.7%
Muhanga	44.7%	80.4%	20.6%	3.2%
Kamonyi	51.6%	80.5%	21.5%	4.2%
Karongi	55.4%	84.3%	20.3%	1.5%
Rutsiro	48.4%	81.0%	26.7%	1.9%
Rubavu	59.5%	71.9%	17.1%	7.8%
Nyabihu	64.0%	84.6%	19.7%	3.8%
Ngororero	42.7%	72.3%	34.6%	5.6%
Rusizi	49.5%	74.3%	21.4%	5.1%
Nyamasheke	41.7%	70.1%	25.4%	5.3%
Rulindo	41.9%	86.2%	14.4%	1.9%
Gakenke	39.7%	86.8%	14.1%	0.5%
Musanze	55.4%	76.4%	21.7%	7.1%
Burera	35.1%	75.8%	22.3%	1.7%
Gicumbi	43.9%	80.3%	17.0%	2.4%
Rwamagana	52.9%	82.9%	9.7%	1.7%
Nyagatare	55.8%	76.8%	22.1%	5.6%
Gatsibo	54.4%	82.3%	9.4%	1.1%
Kayanza	53.1%	78.0%	13.3%	3.0%
Kirehe	49.5%	82.3%	12.3%	2.2%
Ngoma	49.0%	87.1%	14.9%	0.6%
Bugesera	57.5%	77.1%	15.1%	6.0%

Source: RLFS August 2016 - February 2017

Notes: 1 ILO Resolution concerning statistics of work, employment and labour underutilization, 19th International Conference of Labour Statisticians, Geneva, 2013

2 ILO Resolution concerning statistics of the economically active population, employment, unemployment and underemployment, 13th International Conference of Labour Statisticians, Geneva, 1982.

By contrast, the districts with the lowest labour force participation rates are those in remote or mountainous areas with low market-oriented agriculture and no or limited urban centers. These include in ascending order of labour force participation rate: Nyaruguru (34.9 percent), Burera (35.1 percent), Gakenke (39.7 percent), Nyamasheke (41.7 percent), Rulindo (41.9 percent), Ngororero (42.7 percent) and Gicumbi (43.9 percent).

The other districts with lowest labour force participation rates are Nyanza (44.3 percent), Muhanga (44.7 percent) and Rutsiro (48.4 percent). The first two districts have moderate cities with little market-oriented agriculture, and life-style of urban areas. Rutsiro is mostly rural with some tea growing farms and processing of agriculture products.

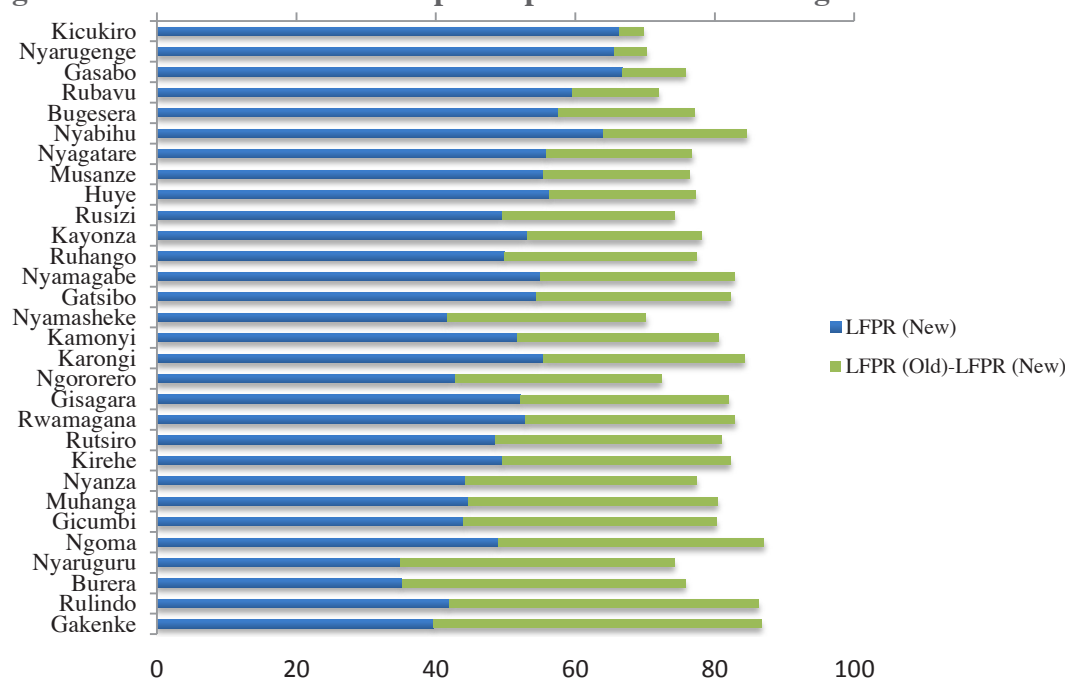
14.1.1 Comparison of LFPR under new and old definitions

The main difference between the new and old standards on the measurement of the labour force concerns the new definition of employment as a particular form of work. Persons in employment are defined as all those above a specified age who, during a short reference period, were engaged in any activity to produce goods or provide services for pay or profit. It excludes subsistence foodstuff producers and more generally persons engaged wholly in activities to produce goods or services for own final use such as producing agricultural, fishing and gathering products for own-consumption or cleaning, decorating, gardening and maintaining one's own dwelling or premises, durables and other goods.

These new definition of employment have implications on the measurement of unemployment and therefore the labour force, the sum of the number of employed and the number of unemployed persons. The following graphic shows the two series in graphic form sorted in ascending order of the difference between the labour force participation rates according to the old and new definitions (green) and the rate according to the new definition (blue).

It is instructive to note that there are little variations among the labour force participation rates of the districts according to the old definition. All vary within about 10 percentage points of the national average (78.2 percent). The variation of the district rates is much more significant according to the new definition, the maximum rate deviating about 14 percentage points from the national average (52.4 percent) and the minimum about 17 percentage points.

Figure 14. 1 District labour force participation rates according to new and old definitions



RLFS August 2016 , February 2017

The length of the green bar indicates the difference between the LFPR rate of each district under the new and the old definitions. The smallest differences are for Kicukiro (3.4 percentage points), Nyarugenge (4.6 ppts), Gasabo (9.0 ppts) and Rubavu (12.4 ppts). The largest differences concern Gakenke (47.1 ppts), Burera (40.6 ppts), Nyaruguru (39.3 ppts), and Ngoma (38.1 ppts).

14.1.2 Degree of concentration of market-oriented agriculture

The major factor explaining the differences is the degree of concentration of market-oriented agriculture in the district. In general the higher the concentration of market-oriented agriculture in the district the higher the labour force participation rate of the district under the new definition and the smaller the difference between the corresponding labour force participation rates under the new and old definitions. Vice versa, the lower the concentration of market-oriented agriculture in the district, the lower the labour force participation rate of the district under the new definition and the larger the difference between the corresponding labour force participation rates under the new and old definitions.

In mathematical terms, the degree of concentration of market-oriented agriculture may be defined in the present context as the ratio of the number of persons employed in agriculture according to the new definition of employment to the total number of workers in agriculture including those in subsistence foodstuff production,

$$\frac{\text{Employed persons in agriculture}}{\text{Total number of persons engaged in agriculture work}}$$

In practice, the denominator is measured here by the sum of employed persons in agriculture and the subsistence foodstuff producers outside the labour force according to the new definitions of employment and labour force. The results show a high positive correlation (0.67) between the degree of concentration of market-oriented agriculture and the labour force participation rate of districts according to the new definition. And, a high negative correlation (-0.55) between the degree of concentration of market-oriented agriculture and the difference between the labour force participation rate of districts according to the old and new definitions.

14.2. Unemployment

A similar approach is adopted for the analysis of the unemployment rates of districts. The right panel of the earlier table 1 shows the unemployment rates of the thirty districts of Rwanda according to both the new and old sets of definitions.

According to the new international standards, the national average unemployment rate was 17.7 per cent in the period from August 2016 to February 2017. This means that about one out of every six persons of working age was unemployed. A person of working age 16 years old and over is classified as unemployed, if he or she was without employment during the reference period but was currently available and had undertaken active steps to seek employment during the past four weeks. Persons engaged in own-use production work could be classified as unemployed if they were not otherwise employed and met the other conditions of the definition of unemployment.

There is a great variation in the unemployment rate of districts as indicated in Table 14.1 The districts with highest unemployment rates above the 20 percent level are Ngororero (34.6 percent), Rutsiro (26.7 percent), Nyamasheke (25.4 percent), Nyarugenge (22.5 percent), Burera (22.3 percent), Nyagatare (22.1 percent), Musanze (21.7 percent), Kamonyi (21.6 percent), Rusizi (21.4 percent), Muhanga (20.6 percent), and Karongi (20.3 percent).

It is instructive to note that districts with highest unemployment rates are in many cases those with lowest labour force participation rates. This is explained by the fact that areas with limited market-oriented agriculture are also areas with low job opportunities. An exception is Nyarugenge in the City of Kigali, where people in urban areas with little agriculture activities if out of job have to look employment outside agriculture. This is not the case in Gasabo and to some extent in Kicukiro where alternative employment exists in market-oriented agriculture.

Districts with the lowest unemployment rate are Nyanza (7.5 percent), Gatsibo (9.5 percent) and Rwamagana (9.7 percent), followed by Nyamagabe (10.3 percent), Gisagara (12.3 percent), Kirehe (12.3 percent) and Kayonza (13.3 percent).

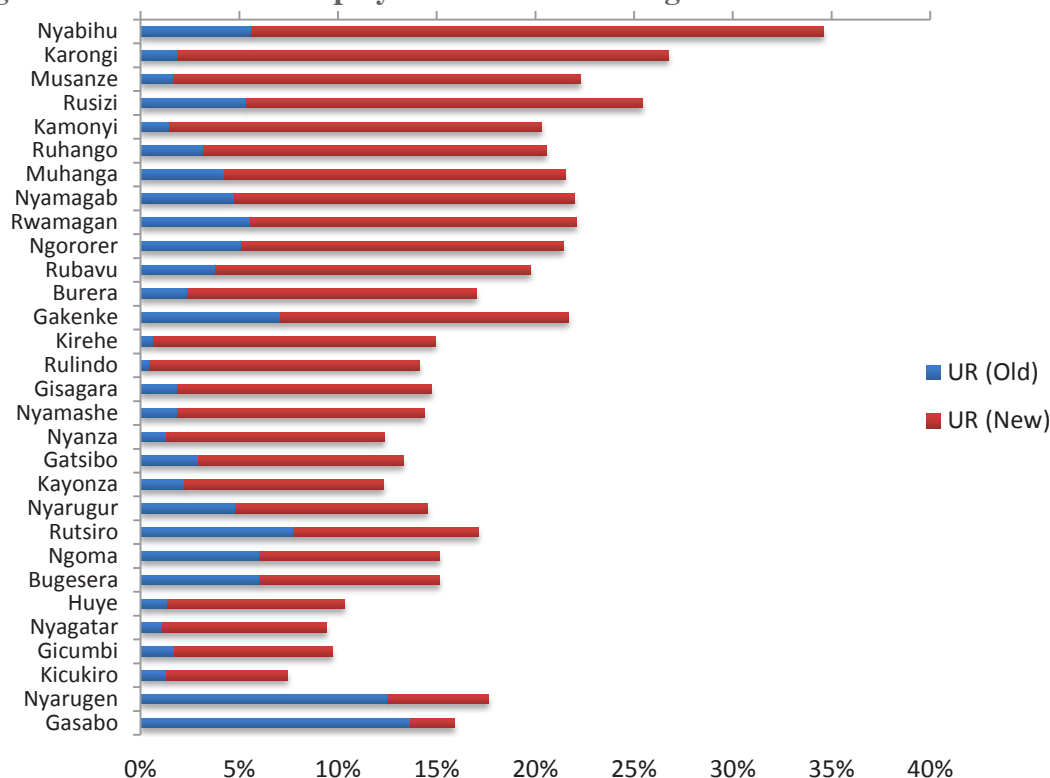
Finally, it should be mentioned that job opportunities are highly seasonal in many of the districts and a low annual average unemployment rate may mask a relatively high unemployment rate in the off-season.

14.2.1 Comparison of unemployment under new and old definitions

The basic elements of the international definition of unemployment have remained the same under the new and old standards. But, because of the changes in the definition of employment, the count of the number of unemployed persons differs under the new and old standards. In particular, subsistence foodstuff producers that would have been classified as employed under the old definition, may now be classified as unemployed if they satisfy the main criteria of unemployment, namely, current availability for employment and active search for employment during the specified reference period.

The new statistical treatment of subsistence foodstuff producers with respect to employment has drastic effect on the measurement of unemployment as indicated in the right panel of Table 14.1 above. The red color bars vastly dominate the blue color bars for all districts except for the last two, Nyarugenge and Gasabo. This means that in virtually all the districts the unemployment rate under the new definition is not just higher than the rate under the old definition, but it is more than twice larger than the old rate. In Nyabihu it is 5 times higher, in Karongi, it is more than 13 times higher. In Musanze, it is 3 times higher and so on. The differences between the unemployment rate according to the new definition and the old definition are the narrowest in Nyarugenge and Gasabo in the City of Kigali where the job opportunities are wider.

The unemployment rate under the new definition provides a clearer picture of the unemployment situation in the different districts as it reflects the pressure on the labour market exercised by all persons not already employed who are seeking work for pay or profit including those who are working on subsistence foodstuff production, or more generally, on other forms of non-employment work.

Figure 14. 2: District unemployment rates according to new and old definitions

RLFS August 2016 February 2017

Also it can be shown using the data presented in Table 14.1 that the unemployment rate and the labour force participation rate under the old definitions are highly correlated indicating that they are measuring along the same dimension. The correlation between the unemployment rate and the labour force participation rate under the new definitions is, however, almost zero, indicating that the two indicators are measuring different dimensions of the labour market as it should be.

14.2.2 Level of job opportunities of districts

It was indicated in the previous section that the labour force participation rate in the present context is probably measuring the degree of concentration of market-oriented agriculture of the different districts. It is surmised that the unemployment rate on the other hand is measuring the level of job opportunities in the labour market of each district. The level of job opportunity of a district may be defined as,

$$\frac{\text{Employed_persons}}{\text{Total_number_of_persons_in_labour_or_in_own_use_production_work}}$$

where the numerator reflects the demand for labour of the district and the numerator the supply of labour. The ratio varies between 0 and 1. A high ratio indicates a high level of job opportunities in the district and correspondingly a lower district unemployment rate. By contrast, a low rate indicates a low level of job opportunities in the district and a higher district unemployment rate. In practice, the numerator may be measured with the number of employed persons according to the new definition and the denominator with the sum of the labour force according to the new definition and the number of subsistence foodstuff producers not in the labour force.

Annex A. Main concepts and definitions

The main concepts and definitions used in the survey are in line with the international standards on statistics of work, employment, and labour underutilization adopted by the 19th International Conference of Labour Statisticians (Geneva, 2013).¹⁸ They are briefly described below.

- **Work**

The starting point of the international standards on statistics of work, employment and labour underutilization is the concept of work defined as:

- “Any activity performed by persons of any sex and age to produce goods or to provide services for use by others or for own use” in line with the General production boundary defined in the System of National Accounts 2008.
- Work is defined “irrespective of its formal or informal character or the legality of the activity.”
- It excludes “activities not involving production of goods or services (begging, stealing), self-care (personal grooming, hygiene) and activities that cannot be performed by another person on one’s own behalf (sleeping, learning, own recreation).”

The international standards recognize different forms of work: Own-use production work (production of goods and services for own final use); employment (work performed for others in exchange for pay or profit); unpaid trainee work (work performed for others without pay to acquire workplace experience or skills); volunteer work (non-compulsory work performed for others without pay); and other forms of work (not defined at this time by the international standards). The RLFS focuses on the measurement of employment and labour underutilization and separately on own-use production work.

- **Working age population**

The working age population in Rwanda is defined as all persons 16 years old and over. For international reporting, the international standards recommend the lowest age bracket starting with 15 years. To enable comparison with the past and to conform to the international standards, the LFS questionnaire collected data on labour force and labour underutilization characteristics of the population 14 years and over. Accordingly, the main indicators presented in this report are based on the 16 years old limit.

¹⁸ILO, *Resolution concerning statistics of work, employment and labour underutilization*, 19th International Conference of Labour Statisticians, Geneva, October 2013.

- **Employment**

Employment is a particular form of work. Persons in employment are defined as all those above a specified age who, during a short reference period, were engaged in any activity to produce goods or provide services for pay or profit. It excludes persons engaged wholly in activities to produce goods or services for own final use such as producing agricultural, fishing and gathering products for own-consumption or cleaning, decorating, gardening and maintaining one's own dwelling or premises, durables and other goods. Persons in employment comprise: (a) employed persons "at work," i.e., who worked in a job for at least one hour; and (b) employed persons "not at work" due to temporary absence from a job, or to working-time arrangements (such as shift work, flexi-time and compensatory leave for overtime).

This definition of employment differs from the definition used in past surveys and censuses that was based on the previous international standards.¹⁹ The main difference concerns the statistical treatment of subsistence foodstuff producers. According to these earlier standards, "persons engaged in the production of goods and services for own and household consumption should be considered as in self-employment if such production comprises an important contribution to the total consumption of the households." According to the new standards, however, only those are included in employment if the production was "intended mainly for sale or barter, even if part of the output is consumed by the household or family."

- **Labour underutilization**

Labour underutilization refers to mismatches between labour supply and demand. It reflects the unmet need for employment among the population. Measures of labour underutilization include, but may not be restricted to unemployment; time-related underemployment; and potential labour force.

- **Unemployment**

Persons in unemployment are defined as all those above a specified age who (a) were not in employment; (b) carried out activities to seek employment during a specified recent period; and (c) were currently available to take up employment given a job opportunity. The definition of unemployment provides an exception in the case of *future starters*. They are considered as unemployed even if they did not carry out activities to seek employment during the specified recent period, if satisfy the availability condition.

Although this definition of unemployment is essentially the same as the definition used in past surveys and censuses, the resulting statistics differ considerably from each other. This is due to the impact of the change in the definition of employment. Persons who are not classified as employed under the new definition are now subject to classification as unemployed if they satisfy the other two criteria of unemployment.

¹⁹ ILO, *Resolution concerning statistics of the economically active population, employment, unemployment and underemployment*, adopted by the 13th International Conference of Labour Statisticians, Geneva, 1982.

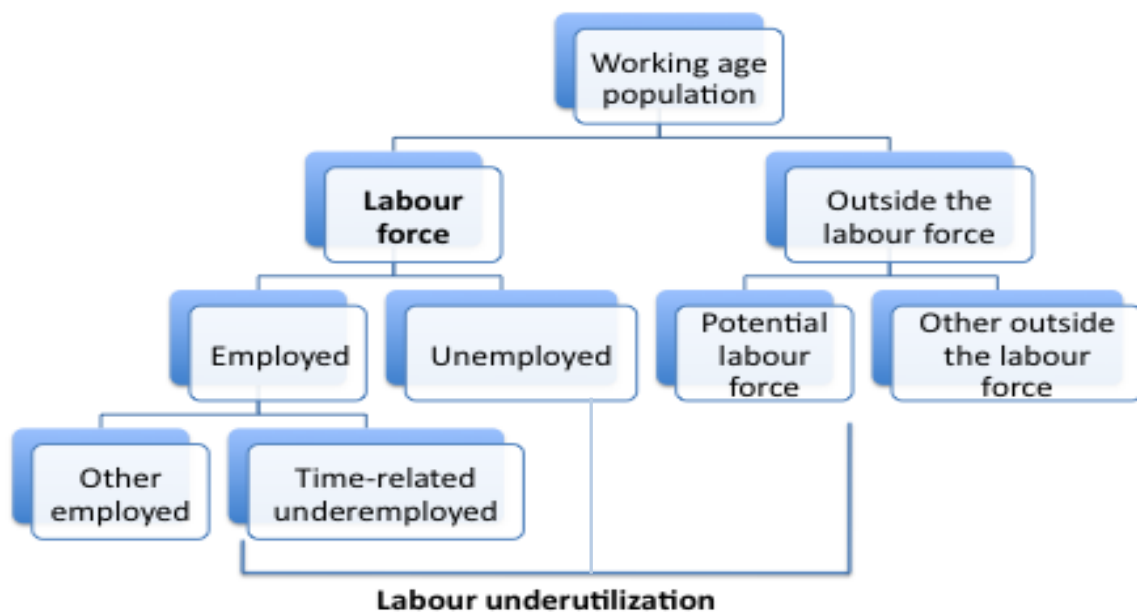
- **Time-related underemployment**

Persons in time-related underemployment are defined as all persons in employment who, during a specified reference period, (a) wanted to work additional hours, (b) whose working time in all jobs was less than a specified hours threshold, and (c) who were available to work additional hours given an opportunity for more work. The hour-threshold was set at 35 hours of work during the reference week at all jobs. It corresponds to the median value of the distribution of hours actually worked at all jobs during the reference week.

- **Potential labour force**

Potential labour force is defined as all persons above a specified age who, during the short reference period, were neither in employment nor in unemployment but who were considered as either (a) *unavailable jobseekers* (seeking employment but not currently available) or (b) *available potential jobseekers* (currently available for employment but did not carry out activities to seek employment). The relationship among the various concepts is shown in the figure below.

A1. Labour force and labour underutilization framework



Note: The employed excludes workers engaged in the production of goods or services for own consumption or in other forms of work not regarded as employment.

- **Discouraged jobseekers**

Among the potential labour force, one particular group requires separate attention. These are the so-called discouraged jobseekers. Discouraged jobseekers are persons outside the labour force

who wanted employment and were currently available but did not seek employment during the short reference period of measurement for labour market-related reasons as listed below:

- past failure to find a suitable job
- lack of experience
- lack of qualifications or jobs matching the person's skills
- lack of jobs in the area
- considered too young or too old by prospective employers

The discouraged jobseekers are a subset of the potential labour force, or more particularly, a subset of the “available potential jobseekers”. During the survey reference period, they wanted and were available for employment, but were not seeking employment for labour market-related reasons as opposed to personal, family or other non-labour related reasons. They are considered as potential jobseekers because in principle they have been seeking employment in the past but stopped looking for employment after failure or repeated failures to obtain suitable employment due to various reasons related to the unsuitability of their age, qualification, work experience, and similar labour-market reasons. If these obstacles could be overcome, they would presumably be again jobseekers.

- **Others outside the labour force**

The potential labour force is one group of persons outside the labour force. In general, persons outside the labour force include persons of working age population who were neither in employment nor in unemployment during the reference period of measurement. Persons outside the labour force may be classified in terms of their current main activity status as well as the main reason for not being engaged in the labour force and their potential future labour force engagement. The international standards recommend the classification of persons outside the labour force by main activity status, as self-declared, with the following categories:

- own-use production of goods or own-use provision of services;
- unpaid-trainee work;
- volunteer work;
- studies;
- self-care (due to illness or disability);
- leisure activities (social, cultural, recreational).

The main status of the individual is to be determined by the person himself or herself, or in practice by the survey respondent if the survey allows for proxy-response.

Additional classifications of the population outside of the labour force (or more generally, the population not in employment) that may be considered in survey design are past work employment and characteristics of last employment for those who had past employment experience, and main current source of livelihood.

- **Willing non-jobseekers**

One particular group of persons outside the labour force who are not in the potential labour but have some attachment to the labour force are the so-called “willing non-jobseekers”. Willing non-jobseekers are defined as persons who wanted employment but were not seeking employment and were not currently available for employment during the corresponding specified reference periods of measurement.

The willing non-jobseekers are a subset of the persons outside the labour force, and more particularly, a subset of those persons outside the labour force who are not in the potential labour force. The willing non-jobseekers were not seeking employment, nor were available for employment during the appropriate reference periods and as a result are not classified as unemployed or as potential labour force. However, they wanted employment during the appropriate reference period, and in this sense they are considered as a separate category among the population outside the labour force.

- **Own-use production work**

Persons in own-use production work are defined as all those of working age who, during a short reference period, performed any activity to produce goods or provide services for own final use for a cumulative total of at least one hour. “For own final use” is interpreted as production where the intended destination of the output is *mainly* for final use (in the form of capital formation, or final consumption by household members, or by family members living in other households). In the case of agricultural, fishing, hunting or gathering goods intended mainly for own consumption, a part or surplus may nevertheless be sold or bartered.

Subsistence foodstuff producers constitute an important subgroup of persons in own-use production work. They are defined as all those who performed any of the specified activities to produce foodstuff from agriculture, fishing, hunting or gathering that contribute to the livelihood of the household or family. Excluded are persons who engaged in such production as recreational or leisure activities.

Own-use producers and in particular persons engaged in own-use production of goods such as subsistence foodstuff producers (and for that also matter unpaid trainee workers or volunteer workers) may be engaged, in the same reference period, in other activities, including employment or search for employment. On the basis of their other activity, therefore, certain own-use producers may also be in the labour force and classified as employed, unemployed or other labour underutilization category.

The following table lists the terminology and definitions of the main labour force and labour underutilization indicators used in the survey. The definitions of other concepts used in the survey are described as part of the analysis of the data in the body of the report.

A2. Main labour force and labour underutilization indicators

Concept	Definition
Working age population (Pop16+)	$E+U+N$
Labour force (LF)	$LF = E+U$
Potential labour force	P
Extended labour force (XLF)	$XLF = E+U+P$
Employment	E
Unemployment	U
Time-related underemployment	T
Labour force participation rate	$LF/Pop16+$
Employment-population ratio	$E/Pop16+$
Unemployment rate (LU1)	U/LF
Combined rate of unemployment and time-related underemployment (LU2)	$(U+T)/LF$
Combined rate of unemployment and potential labour force (LU3)	$(U+P)/XLF$
Composite measure of labour underutilization (LU4)	$(U+T+P)/XLF$

Annex B. Survey methodology and data quality

The ultimate goal of the labour force survey (LFS) programme is to collect data on the employment and labour underutilization characteristics of the population on a continuous basis, providing quarterly estimates of the main labour force aggregates with sufficient precision at the district level. Given this ambitious measurement objective, it has been decided to adopt a gradual approach starting with an annual survey with the sample spread over two points in time. The sample is designed such that the survey provides for:

- Semi-annual national estimates of employment and labour underutilization with specified precision, and
- Annual district-level estimates by pooling together the bi-annual data of each calendar year.

The timing of the bi-annual rounds is based on the seasonal variations of labour force activities in Rwanda, in particular, the high and low seasons of agriculture activities, in February and August, respectively. This approach is in line with the international standards that recommend a national data collection strategy that allows reporting “on a sub-annual basis, main aggregates of employment, the labour force, labour underutilization, including unemployment, and subsistence foodstuff producers, in order to monitor short-term trends and seasonal variations.”

An annual survey with the sample spread over two points in time has a number of advantages in comparison with an approach that starts with an annual survey conducted at one point in time during the year. The semi-annual approach allows NISR to put in place a survey management system that oversees survey operations and data processing tasks that cover the entire year. This would make it easier to transit at a later stage into a more frequent reporting system. It will also lessen the number of transitions and inevitable disruptions at each transition toward the final objective of reaching a continuous survey with quarterly reporting,

A semi-annual approach also provides the possibility of incorporating a rotation scheme into the sample design. A rotation scheme allows to produce more accurate measurement of employment and labour underutilization trends as well as new statistics on labour force dynamics, in particular, flow data on job gains (number of persons obtaining employment during a given period) and corresponding data on job losses (number of persons losing employment during the period).

1. Sample design

The sample design of the LFS is a two-stage stratified design according to which at the first stage of sampling, a stratified sample of enumeration areas from the latest population census is drawn with probabilities proportional to size measured in terms of the census number of households or census number of household members, and at the second stage of sampling, a fixed number of sample of households is selected with equal probability within each sample enumeration areas. Finally, all household members in the sample households are selected for survey interviewing.

The scope of the survey is all persons living in private households. It excludes the institutional population permanently residing in houses such as hostels; health resorts; correctional establishments etc., as well as persons living in seasonal dwellings not covered in the survey. It also excludes workers living at their work-sites. A household is a group of persons who live together and make common provision for food and other essentials for living. The people in the group may be related or unrelated or a combination of both. A household may consist of only one person or several persons.

- **Sample size**

Sample size determination in most household-based surveys with multi-stage stratified design is based on the principle of first calculating the required sample size for a single «domain» assuming a simple random sample design and no non-response. A domain is a well-defined population group for which estimates with pre-determined accuracy are sought. The results are then extended to allow for non-response and deviation from simple random sampling.

The application of this principle with the choice of parameters described below leads to a sample size requirement of 18,691 households for measuring annual unemployment with margin of errors of +/- 0.3% at 95% confidence level. In these calculations, the main indicator is the ratio of unemployment to the working age population, set at $r=0.024$ according to the 2012 population census of Rwanda. The design effect (deff) is set at 3, within the range of values (3 to 4) generally used for labour force surveys. The margin of errors (ME = 0.0026) is twice the standard error of the estimate.²⁰ Similar calculations for employment gave a sample size requirement of 18,792 households.

Because the sample size should be a multiple of $2 \times 4 \times 16$ for two survey rounds per year, four rotation groups per round and 16 sample households per Primary Sampling Unit (PSU), the required annual sample size has been rounded to 18688 households. For the February 2017 round, the sample size was therefore set at

Sample size of LFS February 2017 = $18688/2 = 9344$ households.

- **Sample rotation**

The main purpose of sample rotation is to improve the precision of the trend estimates. It also allows obtaining data on labour force flows by matching sample individuals common in different survey rounds. The sample rotation scheme adopted for the Rwanda LFS programme builds on the possibility of transiting to quarterly sub-rounds after a few years of half-annual sub-rounds.

²⁰For more detail description of the calculations reference is made to: “Labour Force Survey of Rwanda: Proposed survey programme and instruments, FarhadMehran, GIZ Consultant, National Institute of Statistics of Rwanda (NISR), 31 July 2015.

Rwanda LFS: Sample rotation design

2016		2017		2018	
February	August	February	August	February	August
Pilot survey	4 (R1)				
	3 (R2)	4 (R2)			
	2 (R3)	3 (R3)	4 (R3)		
	1 (R4)	2 (R4)	3 (R4)	4 (R4)	
		1 (R5)	2 (R5)	3 (R5)	4 (R5)
			1 (R6)	2 (R6)	3 (R6)
				1 (R7)	2 (R7)
					1 (R8)
Sample size:			Sample overlap:		
Annual: 18688 households			Round-to-round overlap = 75%		
Semi-annual: 9344 households			Year-to-year same half-year overlap = 50%		
One rotation group: 2336 households			Year-to-year overlap = 60%		

According to the sample rotation design, the annual sample size is distributed into two bi-annual rounds in February and August of each year, except for the first year when the Pilot Survey was conducted. The LFS August 2016 begins with a half-sample of 9344 households. In 2017, the survey uses the full sample of 18688 households evenly spread over February and August, and the process continues in 2018 and beyond unless a decision is taken to transit to quarterly sub-rounds.

The rotation scheme retains each sample household in four consecutive half-year rounds (2 years) before leaving the sample altogether. The sample size in each round consists therefore of 4 rotation groups, containing households who would remain in the sample three more times, the other who would remain two more times, another who would remain one more time, and finally one who join the sample for the first time.

According to this rotation scheme, there is 75% sample overlap between the semi-annual rounds. The overlap for the same period one-year apart is 50% and the sample overlap between two consecutive years is 60%. It should be mentioned that sample rotation implies a lower number of distinct households in each annual survey. There would be 11,680 distinct households in the sample each year in 2017 and 2018.

- **Sampling frame and sample allocation among districts**

The sample in each survey round consists of four rotation groups comprising in total 9344 households in 584 primary sampling units (PSUs). A primary sampling unit is an enumeration

area of the Population and Housing Census 2012. There are altogether 14,784 enumeration areas in the sampling frame constructed by NISR based on the population and housing census.

To ensure adequate geographical distribution of the sample over the different parts of the population, the sample is allocated among the 30 districts of the country. Prior to sample selection, the sampling frame is sorted according to urban and rural areas within districts. This provides an implicit stratification of the population by urban and rural areas. The resulting distribution of the sample of the LFS February 2017 round obtained on the basis of the square-root allocation is shown in the following table. The sample design thus provides a total of 9344 households in 584 enumeration areas, with 3248 urban households in 203 urban enumeration areas and 6096 rural households in 381 rural enumeration areas.

Sample allocation of enumeration areas and households by district, RLFS February 2017

District	Number of sample enumeration areas			Number of sample households		
	Total	Urban	Rural	Total	Urban	Rural
Total	584	194	390	9,344	3,104	6,240
Nyarugenge	68	49	19	1,088	784	304
Gasabo	92	51	41	1,472	816	656
Kicukiro	72	59	13	1,152	944	208
Nyanza	12	1	11	192	16	176
Gisagara	12	-	12	192	-	192
Nyaruguru	12	1	11	192	16	176
Huye	12	4	8	192	64	128
Nyamagabe	12	1	11	192	16	176
Ruhango	12	1	11	192	16	176
Muhanga	12	2	10	192	32	160
Kamonyi	12	2	10	192	32	160
Karongi	12	1	11	192	16	176
Rutsiro	12	-	12	192	-	192
Rubavu	16	6	10	256	96	160
Nyabihu	12	2	10	192	32	160
Ngororero	12	-	12	192	-	192
Rusizi	16	3	13	256	48	208
Nyamasheke	16	-	16	256	-	256
Rulindo	12	-	12	192	-	192
Gakenke	12	-	12	192	-	192

District	Number of sample enumeration areas			Number of sample households		
	Total	Urban	Rural	Total	Urban	Rural
Musanze	16	4	12	256	64	192
Burera	12	-	12	192	-	192
Gicumbi	16	1	15	256	16	240
Rwamagana	12	1	11	192	16	176
Nyagatare	16	2	14	256	32	224
Gatsibo	16	1	15	256	16	240
Kayonza	12	1	11	192	16	176
Kirehe	12	-	12	192	-	192
Ngoma	12	-	12	192	-	192
Bugesera	12	1	11	192	16	176

It should be mentioned that the square-root allocation rule allocates the sample in proportion to the square-root value of the size of the district. It is a compromise between equal and proportional allocation. Equal allocation gives the same allocation to each district regardless of size. It may be appropriate if each district is to be treated as separate reporting unit (domain) with the same precision requirement as the others. Proportional allocation distributes the sample in proportion to the size of the districts. With proportional allocation, the geographical composition of the population is preserved, but it may lead to very small sample sizes for certain districts.

- **Selection of sample enumeration areas**

The next step in sample design was the selection of the 584 sample enumeration areas. The sample was drawn in each district by probability proportional to size (pps) from the sampling frame. In practice, the sample of enumeration areas was selected from the start for an entire sequence of 18 survey rounds from August 2016 to August 2023 when in principle a new sampling frame constructed on the basis of the next population and housing census will become available. The selected sample was then assigned randomly to 18 rotation groups. Sample enumeration areas in rotation groups R1 to R4 formed the sample for LFS August 2016. The sample of enumeration areas assigned to rotation groups R2 to R5 were used for LFS February 2017. The sample enumeration areas assigned to R3 to R6 will be used for LFS August 2017, and so on. The same process will continue on each round with the addition of one rotation group per round.

- **Selection sample households**

The sample enumeration areas were freshly listed prior to selection of the final sample of households. According to the sample design, 16 sample households were selected from the list

of households in each sample enumeration area by systematic sampling with equal probability. If the list contained 16 households or less all households in the sample enumeration area were drawn in the sample. If the list contained more than 16 households, a sample of fixed size (16 households) was drawn from the list by systematic random sampling.

The purpose of listing was to ensure that every household currently residing in the sample locality has a non-zero probability of selection. Listing permits to update the sampling frame and account population movements and new household formations that have occurred since the last preparation of the sampling frame. It aims at covering the newly constructed buildings with living quarters and taking into account demolished or vacant buildings, or transformed dwellings no longer used as living quarters, such as dwelling addresses turned to stores or workshops, or living quarters used as secondary housing units or for holidays.

The listing form consisted a booklet of 24 pages organized in four columns: (1) A three-digit serial number for listing buildings; (2) Another three-digit serial number for listing dwellings within buildings; (3) The name of the head of household residing in the dwelling; and (4) The street address of the household.

- **Sample weights**

Three steps were involved in the calculation of the sample weights: Calculation of the design weight, Adjustment for non-response; and Calibration to known population projections.

The design weight of a given sample household is the inverse of the probability of selection of a sample household. This probability is calculated as the product of two probabilities. The first is the probability of selection of the enumeration area k where the sample household is residing,

$$p_k = \eta \times N_k$$

where N_k is the number of households in the enumeration area according to the sampling frame and η is the proportionality factor of the pps sampling scheme.

The second is the probability of selection of the sample household within the enumeration area k

$$p(hh_k) = \frac{16}{N_k}$$

where 16 is the fixed sample-take in enumeration area k and N_k is the listed or estimated number of households in the enumeration area k .

The overall design weight is the inverse of the product of these two probabilities,

$$DesignWeight(hh_k) = d_k = \frac{1}{p_k} \times \frac{1}{p(hh_k)}$$

The non-response adjusted weight is then obtained by the dividing the design weight with the response rate,

$$\text{AdjustedWeight}(hh_k) = d'_k = \frac{d_k}{r_k}$$

where the response rate r_k in enumeration area k is the percentage number of responding households among the total eligible households in the sample enumeration area.

Finally, the adjusted weights were calibrated to known population projections for four demographic groups:

Male population less than 16 years old living in private households in February 2017 = 2,422,688

Male population 16 years old and over living in private households in February 2017 = 3,137,871

Female population less than 16 years old living in private households in February 2017 = 2,428,178

Female population 16 years old and over living in private households in February 2017 = 3,571,312

The population projections were derived from the NISR census publication.²¹ The projections were adjusted by deducting estimated values for the institutional population not living in private households. The calibration procedure followed the methodology of Deville and Sarndäl.²² Accordingly, the final calibrated weights were obtained from the formula,

$$\text{CalibratedWeight}(hh_k) = w_k = d'_k \times (1 + \lambda x'_k)$$

where d'_k is the adjusted weight for non-response, λ is a regression vector obtained from the calibration formula, and x'_k is the vector of the count of male less than 16 years old, male 16 years old and over, female less than 16 years old and female 16 years old and over of interviewed households in the enumeration area k . All individuals in the same household are assigned the weight of the household in which they belong.

2. Questionnaire design

The questionnaire of the Rwanda Labour Force Survey February 2017 in its present form contains a total of 149 questions organized into 9 sections and a cover page, dealing with following topics:

- A Household roster including activities of children aged 5 to 13 years old
- B Education

²¹ National Institute of Statistics of Rwanda, *Fourth Population and Housing Census, Rwanda, 2012, Thematic Report Population Projections*, January 2014.

²² Deville, J.C., and Sarndäl, C.E., "Calibration Estimators in Survey Sampling," *Journal of the American Statistical Association*, Vol. 87, 1992, pp. 376-382.

- C Identification of employed, time-related underemployed, unemployed and potential labour force
- D Characteristics of main job/activity
- E Characteristics of secondary job/activity
- F Past employment
- G Own-use production of goods and services
- H Subsistence foodstuff production
- I Housing and household assets

Not all questions are addressed to every household member. For children below 14 years of age, a minimum number of questions are asked. For older youngsters and adults 14 years of age and above, the number of questions depends on the situation and activities of the person during the reference period. The basic reference period is the last 7 days prior to the date of the interview. For certain questions, however, other reference periods are used. In each case, the relevant reference period is indicated in the text of the question.

The questionnaire was prepared both in Kinyarwanda and in English. An earlier version of the Kinyarwanda questionnaire was tested during the Pilot LFS February 2016. The field test was conducted in selected urban and rural areas with the aim of assessing the integrity of the instrument, such as understanding of question wordings, duration of interviews, coding and data processing. The experience gained was used to finalize the questionnaire.

Experienced gained from the pilot survey led to certain modifications of the questionnaire. The revised questionnaire was again tested prior to the LFS August 2016 through the mock interviews conducted during the training of supervisors and interviewers. Slight modifications were further introduced following the experience gained during the field work of LFS august 2016

A specimen of the final version of the questionnaire is presented in Annex C of the present report. It is accompanied with two documents: An extensive manual for interviewers, providing instructions on the role of interviewers, listing of household members, and procedures to be adopted for asking each question and recording the corresponding response;²³ and a set of diagrams and corresponding STATA syntax providing rules for combining the survey responses for constructing the main labour force indicators of the survey. These derived variables included:

Labour force status (STATUS1):

- Employed, Unemployed and Outside the labour force
- Time-related underemployed (TRU)

Potential labour force (PLF)

Discouraged jobseeker (discourage)

Willing non-jobseeker (willing)

²³ NISR, *Rwanda Labour Force Survey, Interviewers Manual (RLFS, 2016)*, National Institute of Statistics of Rwanda, Kigali, December 2015. Revised for the RLFS, August 2016.

Subsistence foodstuff producer (sub)

Employment in informal and formal sector (IS and FS)

Informal and formal employment (IE and FE)

Monthly cash income from of employment of employees at main job (cash)

Not in employment, nor in education or training youth 16-24 years old (NEETyouth)

Not in employment, nor in education or training young persons 16-30 years old (NEETyoung)

Migrant worker (migrant)

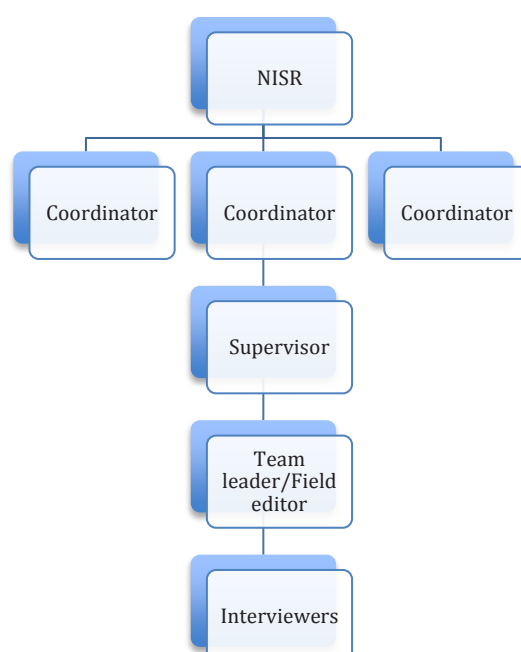
Worker with disability (disable)

3. Field operations

The main pre-survey activities conducted in preparation for the field operations included the establishment of the field organization, the recruitment and training of interviewers and the preparation and printing of the survey documents including maps of the sample enumeration areas, the listing forms, the survey questionnaire and interviewers' instructions.

The following diagram shows the field organization of the survey. It consisted of 3 coordinators, coordinating the work of 9 supervisors, 20 team leaders, 20 field editors and 80 interviewers. In many occasions the team leaders and field editors conducted also survey interviews. So altogether the survey interviewing was carried out by a total of 120 interviewers.

Field organization, LFS February 2017



The actual number of interviewers recruited for the survey was in excess of the required number in order to allow for drop-outs, illness, absences and other possible failures.

The training of the survey staff was carried out in two stages. There was first the training of the supervisors followed with the training of the interviewers. The coordinators conducted the training of the supervisors, and the combined pool of supervisors and coordinators conducted the training of the interviewers.

The field operations were conducted from 3rd August to 2nd October 2016. From 3rd to 10th all teams were involved in listing in Kigali city and from 11th the listing and data collection were expanded in others districts out of Kigali.

Prior to household selection and interviewing, all households in the sample enumeration areas were listed in a special listing form. A separate manual was prepared for household listing, providing special instructions for segmentation of large clusters and quality control of the results.²⁴ Finally, procedures were developed for selecting sample households from the list as part of the field operations.²⁵

The 58 sample enumeration areas with very large number of households at the listing stage were segmented according to the segment areas defined by the population and housing census. One segment at random was listed and the number of listed households was proportionally expanded to obtain an estimate of the current number of households residing in the enumeration area.

4. Data processing

Data processing involved data entry, coding and editing, tabulation of survey results. Data entry was carried out at the central Kigali Office, NISR. It was carried out as supervisors submitted the filled-in questionnaires every two weeks in Kigali, during the period from 1 September to 15 October 2016.

Several questions with textual responses were coded. These concerned education (major field of study in highest qualification attained, and subject of training), occupation and branch of economic activity (at main and secondary job and past employment experience). They were coded into the corresponding national standard classifications using on-screen coding with corresponding dictionaries in Kinyarwanda.²⁶ Coding of geographic areas and addresses was incorporated in the data entry programme as look-up.

Following coding, responses of each questionnaire were edited for blanks, missing values, duplicates, out-of-range values, and inconsistencies such as no head of household or age of

²⁴ National Institute of Statistics of Rwanda, *Manual for Household Listing, Rwanda Pilot Labour Force Survey (RLFS-P 2016)*, NISR, Kigali, February 2016.

²⁵ Mehran, F., GIZ Consultant, "Rwanda Labour Force Survey February 2016. Selection of households without data entry as part of the field operations." 30 December 2015.

²⁶ National Institute of Statistics of Rwanda, *Customized International Standard Industrial Classification of all Economic Activities (ISIC Rev. 4)*, The Rwanda Classification Manual, 2012 edition.

National Institute of Statistics of Rwanda, *Customized International Standard Classification for Occupation (ISCO-08)*, The Rwanda Classification Manual, 2012 edition.

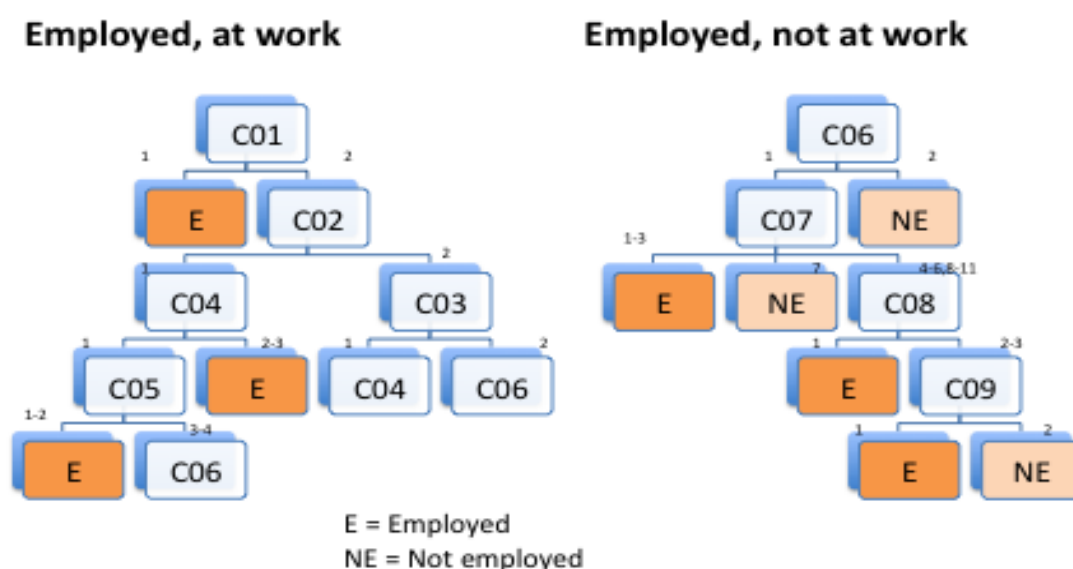
National Institute of Statistics of Rwanda, *Customized International Standard Classification of Education (ISCED 97)*, The Rwanda Classification Manual, 2012 edition.

child greater than age of head of household. Editing specifications on coverage and demographic characteristics were based on the population and housing census (PHC4 2012). Other edit rules were developed for consistency checks on questions related to the measurement of the main labour force variables, including employment, unemployment, multiple jobholding, total hours usually worked at all jobs, total hours actually worked at all jobs, status in employment at main job, etc. Corrections were made mostly with reference to the original physical questionnaire. Many errors were due to data entry.

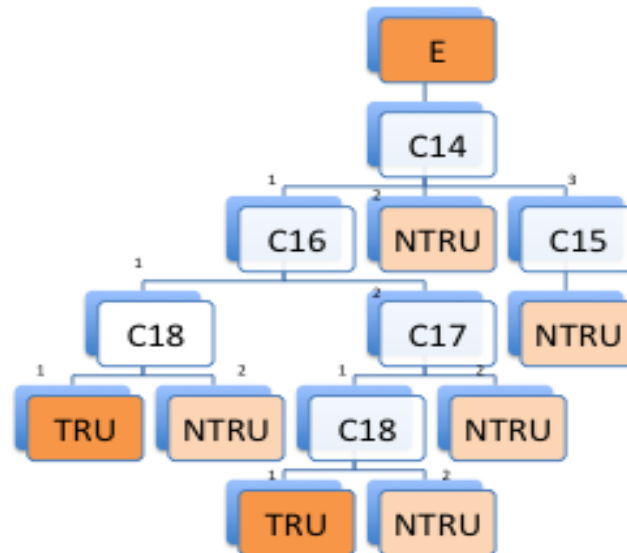
The resulting data file contained 39051 records, 22894 on persons of working age 16 years old and over, and 16157 on persons below 16 years of age. The data file included records corresponding to households who refused to participate in the survey or were not available for response after repeated visits.

As part of data processing, the data file was augmented by adding a field on sampling weights (weight) and a series of additional fields on derived variables constructed on the basis of the information on each record. Some examples of the construction of the derived variables is schematically shown in diagrams B1 to B5 for employment (E), time-related underemployment (TRU), unemployment (U) and potential labour force (PLF), employment in informal sector (IS) and informal employment (IE) at main and secondary jobs, and monthly cash income from employment of employees at main job (cash). The numbered elements of the diagrams refer to the question numbers and response categories of the LFS questionnaire. The end nodes of the diagrams refer to the derived variable categories, employed, time-related underemployed, unemployed, etc.

B.1 Derived variable: Employment (E)

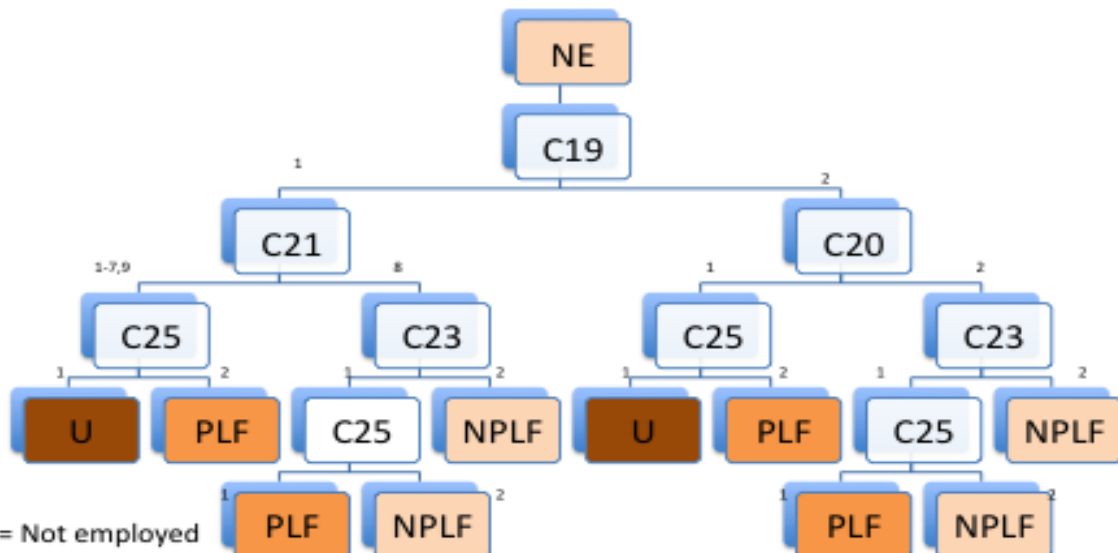


B.2 Derived variable: Time-related underemployment (TRU)



E = Employed
 TRU = Time-related underemployed
 NTRU = Not time-related underemployed

B.3 Derived variables: Unemployment (U) and potential labour force (PLF)



NE = Not employed
 U = Unemployed
 PLF = Potential labour force
 NPLF = Not in potential labour force

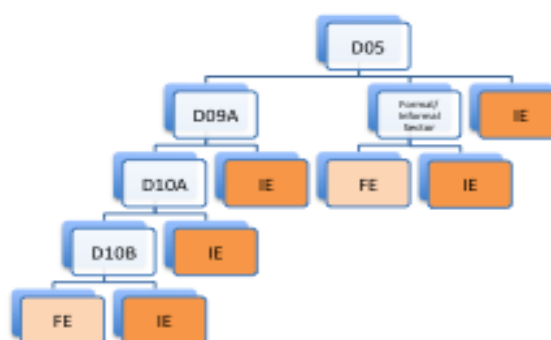
B.4 Derived variables: Informal sector (IS) and informal employment (IE) at main job

Informal sector



IS = Informal sector
 FS = Formal sector
 X = Out-of-scope (Domestic workers engaged by households are excluded from the count of informal and formal sector)

Informal employment



IE = Informal employment
 FE = Formal employment

B.5 Derived variable: Monthly cash income from employment of employees at main job (INC)

Status in employment		Response	Monthly cash income from employment at main job
(1)	(2)	(3)	(4)
Employee or Intern or Other	D05=1,2,7	D12=1 Amount	D12A x 1 if D13=1
			D12A x 26/12 if D13=2
			D12A x 52/12 if D13=3
			D12A x 52/2 if D13=4
			D12A x 10 if D13=5
		D12=8,9 Refusal, Don't know	2*20,000/3=13,333 if D17=1
			2/(1/20,000+1/30,000)=24,000 if D17=2
			2/(1/30,000 +1/50,000)=37,500 if D17=3
			2/(1/50,000 +1/100,000)=66,667 if D17=4
			2*100,000 = 200,000 if D17=5

Finally, the augmented data file with derived variables and sampling weights was used for producing the survey estimates specified in the tabulation programme of the survey as well as other analytical tables for the body of the report. The tabulation programme of the survey included 54 tables presented in the statistical annex of the present report (Annex D).

In order to speed up data processing and ensure better quality data, NISR is planning to introduce tablets for data collection in future LFS rounds. Discussions were held to also consider the possibility of adopting computer assisted coding of the questions with textual responses and automated editing procedures for both detection and correction of errors thus minimizing the need for the time-consuming task of making reference to the physical questionnaires.

5. Data quality

Like in all sample surveys, the results of the LFS February 2017 are subject to sampling and different forms of measurement errors. This section provides information on different sources of survey errors, namely, sampling errors, coverage errors, non-response errors, response errors and other errors such as coding and data entry errors.

- Sampling errors

Sampling errors arise due to the fact that the survey did not cover all elements of the population, but only a selected portion. The sampling error of an estimate is calculated on the basis of the difference between the estimate and the value that would have been obtained on the basis of a complete count of the population under otherwise identical conditions.

Information on sampling errors is used for interpreting the survey results. It provides an assessment of the precision of the estimates and on the degree of confidence that may be attached to them. In the same vein, it allows decision on the degree of detail with which the survey data may be meaningfully tabulated and analyzed. Information on sampling errors is also used for determining whether the survey estimates of change over time or the estimates of differences between two or more population subgroups are statistically significant. Finally, information on sampling errors may be used for future sample design. Rational decisions on the choice of sample size, sample allocation among strata, clustering and estimation procedures, can only be made on the basis of detail knowledge of their effect on the magnitude of sampling errors in the resulting statistics obtained from the survey.

The following table gives the sampling errors of the main labour force estimates obtained from the LFS February 2017 . They have calculated based on the general principle that in multi-stage sample designs the variance contributed by the later stages of sampling is, under broad conditions, reflected in the observed variation among the sample results for first-stage units. Thus, the sampling variance of a variety of statistics, such as totals, means, ratios, proportions, and their differences can be obtained on the basis of totals calculated for the primary sampling units, here the localities.²⁷ The calculations took into account the fact that the sampling weights

²⁷Verma, Vijay, *Sampling Methods*, Manual for Statistical Trainers Number 2, Statistical Institute for Asia and the

were calibrated and used the residual method proposed by Deville and Sarndäl p. 380. They have been carried out in a special Excel file “RLFS FEB2017 sampling errors.xlsx” (sheet Sampling errors 2).

B.6: Sampling errors of estimates of main labour force aggregates

Indicator	Estimate	Standard error	Relative standard error	Confidence interval	
				Lower	Upper
Population 16+ yrs	6,709,200	0	0.0%	6,709,200	6,709,200
Labour force	3,625,500	39,400	1.1%	3,546,700	3,704,300
Employment	3,018,500	42,000	1.4%	2,934,500	3,102,500
Unemployment	607,000	18,900	3.1%	569,200	644,800
Outside labour force	3,083,700	39,400	1.3%	3,004,900	3,162,500

Source: RLFS February 2017

As an illustration of the use of the table, consider the second row of the table on the labour force. The total labour force, 3,625,500, is estimated with a relative standard error of 1.4 percent. The true value at 95 percent confidence level lies within the interval 3546700 and 3,704,300. Similarly, it can be stated that the total number of unemployed persons, 607,000 is estimated with a relative standard error of 3 percent. And, the true value at 95 percent confidence level lies within the interval 569,200 and 644,800

The next table gives the estimated sampling errors for the main labour force indicators expressed in rates or percentages. For example the results indicate that the unemployment rate estimated at 16.7 percent has a standard error of 0.5 percentage points. This may be interpreted to mean that the true unemployment rate lies with 95 percent confidence within the interval, 15.7 to 17.8 to 19.9 percent.

B.7: Sampling errors of estimates of main labour force indicators

Indicator	Estimate	Standard error	Confidence interval	
			Lower	Upper
Labour Force Participation Rate	54.0%	0.6	52.9%	55.2%
Employment-Population Ratio	45.0%	0.6	43.7%	46.2%
Unemployment rate	16.7%	0.5	15.7%	17.8%

Source: RLFS February 2017

It is not practical to compute and report sampling errors for every published statistics of a labour force survey. For this purpose, general variance estimates are typically calculated using the

approximate relationship between the variance of an estimate and its size, expressed by $\text{var}(y)/y^2 = b + a/y$. The results are presented in the following table.

B.8: Approximate sampling errors by size estimates

Size of estimate	Standard error	Relative standard error	Confidence interval	
			Lower	Upper
5,000,000	44,100	0.9%	4,911,800	5,088,200
2,500,000	35,500	1.4%	2,429,000	2,571,000
1,000,000	24,000	2.4%	952,000	1,048,000
500,000	17,300	3.5%	465,400	534,600
250,000	12,300	4.9%	225,400	274,600
100,000	7,800	7.8%	84,400	115,600
50,000	5,600	11.2%	38,800	61,200
25,000	3,900	15.6%	17,200	32,800
10,000	2,500	25.0%	5,000	15,000

Source: RLFS February 2017

Thus, an estimate about 5,000,000 has an approximate standard error of 44,100 with a confidence interval at 95% level between 4,911,800 and 5,088,200. Similarly, an estimate of about 500,000 has an approximate standard error of 17,300 with a confidence interval between 465,000 and 534,000. It can be observed that the relative standard error sharply increases as the size of the estimate decreases. Estimates as low as 10,000 have very high relative standard errors, almost 25 percent. The table can be used to decide on the size of estimates that can be meaningfully considered or more as statistical significant for analysis. For size of estimates that are not listed in the table, the approximate standard errors can be obtained by interpolation or extrapolation of the values given in the table.

- **Coverage errors**

Probability sampling requires each element in the target population to have a known non-zero probability of being selected in the sample. This condition is violated if the target population is not fully represented in the sample frame or if the sampling of units from the frame is not according to the selection procedures specified in the sample design. The violation of these conditions generates coverage errors.

Coverage errors may occur due to imperfect frame (under-coverage, over-coverage, or duplication of units) or to practical problems such as confusion in boundary of units or in rules of association between units of different types. Coverage errors may also occur at the stage of

selection of individual persons in the sample household because of failure to identify some eligible persons, for example, lodgers, domestic workers or other non-family members of the household. It can even happen due to incorrect data on personal characteristics, for example, if the age of the person is incorrectly recorded as below the age set for measuring labour force characteristics (under-coverage error), or vice versa the age is incorrectly recorded as above the threshold age (over-coverage error).

A measure of coverage errors may be obtained by counting the number of sample addresses that were found vacant, demolished, out-of-scope (e.g., dwelling addresses turned to stores or workshops) or void of target households for other reasons (e.g., living quarters used as secondary housing units or for summer holidays). In total there were 229 non-eligible sample units: 210 vacant units; 8 units converted to workplaces; and 60 others such as unable to locate address.

Another measure of coverage errors may be obtained by comparing the population estimates obtained from the survey with population projections based on demographic analysis of fertility and mortality rates. Table B.9 shows the estimates of total population by sex and age group (below 16 and 16 years old and above) based on weights with and without calibration.

The largest difference concerns the male working age population 16 years old and over and the smallest difference is for the female population below working age. The main reason for coverage errors is due to the difficulties in listing the large enumeration areas and as a consequence the need for segmentation and estimation of the total number of households in these enumeration areas. The problem of coverage error should be examined more closely in future survey rounds in order to find ways to minimize the need for calibration.

B.9: Population estimates based on sampling weights with and without calibration LFS February 2017

Population group	Calibrated weights	Un-calibrated weight	Difference (%)
Total population	11,560,048	11,807,171	2.1%
Male population	5,560,559	5,641,522	1.5%
- Less than 16 years old	2,422,688	2,569,267	6.1%
- 16 years old and above	3,137,871	3,072,255	-2.1%
Female population	5,999,490	6,165,650	2.8%
- Less than 16 years old	2,428,178	2,604,321	7.3%
- 16 years old and above	3,571,312	3,561,329	-0.3%

Source: RLFS February 2017

- **Non-response errors**

Non-response occurs due to failure to obtain the required information from the units selected in the sample (unit non-response) or to failure to obtain some items of information for the selected unit (item non-response). Unit non-response may occur due to incorrect address of the sample household, or inaccessibility of certain dwellings or refusal of the sample household to be interviewed, or because no one was at home when the interviewer contacted the household, or for other reasons.

Absence and refusal are considered as non-response while vacant demolished or out-of-scope housing units are considered as non-coverage. Based on the data in the table presented earlier, the non-response rate of the survey may be calculated:

$$\text{Non_response_rate} = \frac{82}{9344} = 0.9\%$$

- **Response errors**

Response errors refer to errors originating at the data collection stage. In relation to an individual respondent, response errors may occur because the respondent was unwilling to divulge certain information or because the respondent did not know the answer to the question asked or did not fully understand the meaning of the question. Response errors can also occur due memory lapses, for example by forgetting to report an event, or incorrectly reporting the timing. Response errors may also occur because of errors made by the interviewer or by the instrument used for measurement. Interviewers may introduce errors because of haste and misreporting the responses, or because of misunderstanding of the survey concepts and procedures, or preconceptions and subjective biases. The questionnaire itself may be faulty, with wrong question wordings and incorrect skipping patterns.

The measurement of response errors is one of the most difficult parts of quality assessment of survey data. It generally requires carefully designed re-interview programmes. In the absence of such data, the quality of survey responses may be assessed by comparing the survey results with corresponding information from more reliable external sources such as administrative sources, for example, reconciling the LFS estimate of employment with the corresponding estimate obtained from the Integrated Business Enterprise Survey.²⁸ More detailed assessment may be carried out by comparing the LFS estimates of employment in specific occupations such as primary and secondary school teachers, nurses, and civil servants with corresponding statistics from the line ministries. Other indicators of response errors may be obtained by measuring the degree of self-response against proxy-response, or by testing the internal consistency of certain sets of inter-related responses. The assessment of response errors along the lines described here should be considered in future rounds of the survey when the survey programme has been stabilized.

²⁸National Institute of statistics of Rwanda, *Integrated Business Enterprise Survey*, NISR 2014.

- **Other errors**

Other sources of errors include coding and editing errors, as well as errors in data entry and data processing. Here the occupation and industry coding is evaluated. Table B.10 shows that the employed persons were coded in 308 distinct 4-digit occupation codes and 256 distinct 4-digit industry codes. The percentage of employed persons who were coded with codes ending with the digit “9” was 1.0 percent for occupation and 3.9 percent for branch of economic activity. Codes ending with “9” indicate that the occupation or industry descriptions in the LFS questionnaire could not be precisely found in the classification system and had to be coded as “other”, suggesting insufficient information for precise occupation and industry coding.

10: Coding into occupation and branch of economic activity codes ending with “9”

	Occupation (ISCO-08)	Branch of economic activity (ISIC Rev 4)
Distinct 4-digit codes	308	256
Number of employed persons coded in with 4-digit codes ending with “9” (non-weighted)	107	419
Total number of employed persons (non-weighted)	10,806	10,806
Percent	1.0%	3.9%

Overall, the quality assessment of the results of the LFS February 2017 shows acceptable levels of sampling errors and non-response errors. A fuller assessment of response and coding errors should await future survey rounds when the survey programme is stabilized.

Annex C. Statistical Tables

RWANDA LABOUR FORCE SURVEY

Table 1: Summary labour force indicators, February 2017

	Total	Sex		Residential area		Participated in subsistence agriculture	Not participated in subsistence agriculture	Old definition
		Male	Female	Urban	Rural			
Population 16 years old and over	6,709,183	3,137,871	3,571,312	1,573,206	5,135,977	3,578,228	3,130,955	6,709,183
Labour force	3,625,529	1,967,489	1,658,040	1,014,798	2,610,731	1,812,243	1,813,286	5,391,515
- Employed	3,018,532	1,651,072	1,367,460	831,537	2,186,995	1,447,220	1,571,312	5,149,541
-Unemployed	606,997	316,417	290,580	183,261	423,736	365,023	241,974	241,974
Outside labour force	3,083,654	1,170,383	1,913,271	558,409	2,525,245	1,765,986	1,317,668	1,317,668
Labour underutilization	2,925,667	1,268,647	1,657,021	533,124	2,392,542	2,059,232	866,434	-
- Unemployed	606,997	316,417	290,580	183,261	423,736	365,023	241,974	-
- Time-related underemployed	903,787	431,751	472,036	108,836	794,950	625,083	278,703	-
- Potential labour force	1,414,883	520,479	894,405	241,027	1,173,856	1,069,126	345,757	-
Labour force participation rate	54.0%	62.7%	46.4%	64.5%	50.8%	50.6%	57.9%	80.4%
Employment-to-population ratio	45.0%	52.6%	38.3%	52.9%	42.6%	40.4%	50.2%	76.8%
Time related underemployment rate	29.9%	26.1%	34.5%	13.1%	36.3%	43.2%	17.7%	
LU1 - Unemployment rate	16.7%	16.1%	17.5%	18.1%	16.2%	20.1%	13.3%	4.5%
LU2 - Combined rate of unemployment and time-related underemployment	41.7%	38.0%	46.0%	28.8%	46.7%	54.6%	28.7%	
LU3 - Combined rate of unemployment and potential labour force	40.1%	33.6%	46.4%	33.8%	42.2%	49.8%	27.2%	-
LU4 - Composite measure of labour underutilization	58.0%	51.0%	64.9%	42.5%	63.2%	71.5%	40.1%	-
Youth unemployment rate (16-30 yrs)	21.0%	19.0%	23.1%	21.0%	20.9%	26.2%	16.9%	7.1%
Median total monthly earnings at main job	20,800	26,000	18,200	40,000	18,200	18,200	30,000	

RWANDA LABOUR FORCE SURVEY

Table 2: Comparison of old and new definition

Indicators	Old definition			New definition		
	Total	Urban	Rural	Total	Urban	Rural
LFPR	80.4	70.7	83.3	54.0	64.5	50.8
Employment to population ratio	76.8	61.1	81.5	45.0	52.9	42.6
Unemployment rate	4.5	13.6	2.1	16.7	18.1	16.2
Youth Unemployment rate	7.1	17.4	3.9	21.0	21.0	20.9
OCCUPATION						
Managers	0.7	3.3	0.2	1.3	3.8	0.3
Professionals	3.3	9.1	2.0	5.6	10.5	3.8
Technician & AP	0.9	3.5	0.3	1.6	4.1	0.6
Clarial&support workers	0.6	2.6	0.1	1.0	3.0	0.3
Service and sales waorkers	10.1	20.9	7.6	17.2	24.1	14.6
Skilled agricultural	44.6	14.7	51.4	5.4	1.3	7.0
Craft and related trade workers	4.8	9.0	3.9	8.2	10.4	7.4
Plant and machines operators	1.6	4.6	0.9	2.7	5.3	1.7
Elementary occupations	33.4	32.4	33.6	57.0	37.5	64.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Economic activity						
Agriculture, forestry and fishing	68.3	22.6	78.8	45.9	10.5	59.4
Mining and quarrying	0.8	0.2	0.9	1.3	0.3	1.8
Manufacturing	2.7	5	2.1	4.5	5.8	4.1
Electricity, gas, steam and air conditioning supply	0.2	0.5	0.1	0.3	0.6	0.2
Water supply, sewerage and waste management	0.2	0.3	0.1	0.3	0.3	0.2
Construction	4.7	7.2	4.1	7.9	8.4	7.8
Wholesale, retail trade, repair of motor vehicles, motorcylces	8.8	19.1	6.4	14.9	22.1	12.2
Transportation and storage	2.5	6.5	1.6	4.3	7.5	3.1
Accommodation and food service activities	0.8	2.8	0.3	1.3	3.2	0.6

Indicators	Old definition			New definition		
	Total	Urban	Rural	Total	Urban	Rural
Information and communication	0.2	0.6	0.1	0.3	0.6	0.1
Financial and insurance activities	0.5	1.8	0.1	0.8	2.1	0.3
Real estate activities	0.1	0.2	0	0.1	0.3	0.1
Professional, scientific and technical activities	0.4	1.8	0.1	0.7	2	0.2
Administrative and support service activities	0.9	2.6	0.5	1.5	3	0.9
Public administration and defence	1	3.1	0.6	1.8	3.6	1.1
Education	2.1	3.8	1.7	3.5	4.4	3.2
Human health and social work activities	0.9	3	0.4	1.5	3.5	0.8
Arts, entertainment and recreation	0.1	0.4	0.1	0.2	0.5	0.1
Other service activities	0.9	2.1	0.6	1.5	2.4	1.1
Activities of households as employers	4.1	16.1	1.4	7.1	18.6	2.7
Activities of extraterritorial organizations and bodies	0.1	0.4	0	0.2	0.5	0.1
Total	100	100	100	100	100	100

Table 3: Population by sex, age group and urban/rural area, February 2017

	Total	Male	Female	Urban	Rural
Population	11,560,048	5,560,559	5,999,490	2,391,152	9,168,897
0-4 yrs	1,594,531	813,156	781,375	295,041	1,299,490
5-9 yrs	1,485,381	750,958	734,423	233,260	1,252,121
10-14 yrs	1,542,190	750,389	791,801	239,879	1,302,311
15-19 yrs	1,206,770	580,611	626,159	289,356	917,414
20-24 yrs	1,044,703	503,533	541,170	305,167	739,536
25-29 yrs	938,740	445,930	492,809	267,490	671,250
30-34 yrs	872,342	426,321	446,021	213,039	659,303
35- 39 yrs	690,124	336,545	353,579	161,756	528,368
40-44 yrs	458,021	200,914	257,107	115,872	342,149
45-49 yrs	403,122	176,398	226,724	80,100	323,022
50-54 yrs	336,519	152,980	183,539	57,363	279,157
55-59 yrs	325,306	146,571	178,734	48,927	276,379
60-64 yrs	230,825	103,720	127,105	30,781	200,044
65-69 yrs	145,861	63,270	82,591	17,562	128,299
70-74 yrs	100,825	43,422	57,403	11,090	89,734
75+	184,789	65,841	118,948	24,469	160,320

Table 4: Households by household size, sex of head of household and urban/rural area, February 2017

Household size	Total number households	Head of household		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
	2,633,721	1,944,254	689,467	586,137	2,072,180	1,442,892	1,215,426
1	227,289	141,769	85,520	75,397	151,892	86,617	140,672
2	306,710	148,297	158,413	75,573	231,137	159,188	147,126
3	441,331	294,284	147,047	82,096	359,235	256,133	185,197
4	478,249	355,037	123,212	85,689	392,560	299,488	178,761
5	417,642	335,421	82,221	75,156	342,486	266,814	150,829
6	338,200	289,239	48,961	64,302	273,898	219,381	118,820
7	211,401	185,667	25,734	41,563	169,839	134,939	76,462
8	111,160	103,131	8,029	25,566	85,594	65,529	45,632
9	55,420	50,473	4,947	14,220	41,199	33,935	21,484
10+	46,319	40,936	5,383	17,125	29,194	20,136	26,183

Table 5: Disabled persons by sex, age group, urban/rural area and type of disability, RLFS February 2017

Type of disability	Total	Male	Female	Urban	Rural	5-15 yrs	16+ yrs
Total disabled persons	394963	173778	221185	54315	340648	53254	341708
- Seeing	123528	49016	74512	16141	107387	11701	111827
- Hearing	76599	33480	43119	9224	67375	12193	64405
- Walking	161830	71281	90549	21582	140248	14064	147766
- Remembering	90509	30259	60250	12656	77853	12469	78040
- Washing, dressing	57807	24133	33674	8004	49803	10535	47272
- Communicating	41854	21375	20479	4796	37058	13907	27947

Table 6: Disabled working age persons by status in employment and type of disability, RLFS February 2017

Type of disability	Total	Employed	Unemployed	Outside labour force	LFPR	Emp-Pop	UR
Disabled working age persons (16+ yrs)	341708	68234	15502	257972	25	20	19
- Seeing	111827	22507	5713	83608	25	20	20
- Hearing	64405	10073	1847	52485	19	16	15
- Walking	147766	24314	4279	119172	19	16	15
- Remembering	78040	13502	2837	61701	21	17	17
- Washing, dressing	47272	2868	470	43935	7	6	14
- Communicating	27947	3175	1871	22902	18	11	37

Note: Details may not add to totals because disabled persons may be reporting more than one type of disability.

Table 7: Population 16 years old and over by education status and urban/rural area, February 2017

	Total	Sex		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Total	6,709,183	3,137,871	3,571,312	1,573,206	5,135,977	3,578,228	3,130,955
Currently studying	821,491	442,598	378,893	288,105	533,386	129,346	692,145
Not Currently studying	5,887,692	2,695,273	3,192,419	1,285,102	4,602,591	3,448,882	2,438,810

Table 8: Population 16 years old and over by sex, level of educational attainment and urban/rural area, February 2017

	Total	Sex		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Total	6,709,183	3,137,871	3,571,312	1,573,206	5,135,977	3,578,228	3,130,955
None	3,376,362	1,501,270	1,875,092	409,464	2,966,898	2,209,437	1,166,925
Primary	1,946,227	927,778	1,018,449	434,469	1,511,758	1,074,351	871,876
Lower secondary	551,176	260,509	290,667	219,504	331,671	149,233	401,943
Upper secondary	571,358	294,977	276,381	304,825	266,533	121,977	449,381
University	264,061	153,338	110,722	204,944	59,117	23,230	240,831

Table 9: Population 16 years old and over with respective field of education by sex, urban/rural area, February 2017

	Total	Sex		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Total	6,709,183	3,137,871	3,571,312	1,573,206	5,135,977	3,578,228	3,130,955
General program	4,590,985	2,199,592	2,391,393	837,275	3,753,710	2,734,501	1,856,484
Education	111,007	59,824	51,182	40,912	70,095	29,836	81,171
Humanities and arts	95,201	43,674	51,527	32,839	62,362	30,877	64,324
Social sciences, business and law	323,249	141,536	181,712	228,056	95,193	40,206	283,043
Science	362,613	179,639	182,974	169,905	192,708	74,451	288,162
Engineering, manufacturing and construction	145,387	121,783	23,604	89,088	56,299	16,173	129,214
Agriculture	38,842	24,451	14,392	19,824	19,018	5,075	33,768
Health and welfare	65,476	28,251	37,225	41,623	23,853	5,968	59,507
Services	35,022	10,888	24,134	27,404	7,618	2,721	32,301
Not Specified	277	0	277	0	277	0	277
No Education	941,125	328,234	612,891	86,280	854,845	638,421	302,704

Table 10: Population 16 years old and over in trade or training courses by sex, duration of training, and urban/rural area, February 2017

	Total	Sex		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Total	956,772	534,140	422,632	348,037	608,736	420,602	536,170
Less than One month	10,900	5,298	5,602	2,423	8,478	4,626	6,275
1-3 months	83,311	42,973	40,339	16,817	66,494	51,625	31,686
3-6 Months	186,976	88,934	98,042	64,952	122,024	91,592	95,384
One Year	298,255	153,819	144,435	101,913	196,342	133,770	164,485
Two Years	124,319	69,719	54,600	43,211	81,108	60,088	64,231
Three years or more	253,011	173,397	79,614	118,722	134,289	78,902	174,109

Table 11: Population 16 years old in/attended trade and technical training by sex, technical skills, and urban/rural area, February 2017

Technical skills learned	Total	Sex		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Total	956,772	534,140	422,632	348,037	608,736	420,602	536,170
Masonry	210,066	196,380	13,686	59,283	150,783	99,395	110,671
Carpentry	69,960	68,243	1,717	12,015	57,945	35,564	34,397
Automotive technology.	16,942	16,331	610	8,364	8,577	4,348	12,594
Culinary arts	53,837	15,429	38,408	37,127	16,709	11,548	42,288
Domestic Electricity	23,508	21,793	1,716	13,219	10,289	4,987	18,521
Welding	32,046	28,657	3,389	11,763	20,283	10,166	21,880
Plumbing	7,158	5,639	1,518	3,736	3,422	2,317	4,841
Food processing	3,097	621	2,477	2,178	919	1,010	2,087
Animal health	2,344	1,827	517	1,123	1,221	0	2,344
Auto- Electricity	1,408	1,159	249	372	1,036	360	1,048
Automotive body repair	68,921	66,985	1,937	36,603	32,318	14,641	54,281
Computer maintenance	7,055	5,166	1,889	5,238	1,817	775	6,280
Crop production	147	0	147	147	0	0	147
Engine mechanics	11,204	11,039	165	5,321	5,883	1,315	9,888
Forestry	235	0	235	235	0	0	235
Music	935	935	0	327	609	0	935
Painting and decoration	6,424	6,109	316	1,657	4,767	2,805	3,619
Multimedia	1,382	763	620	923	460	0	1,382
Networking	4,829	3,868	962	4,678	151	0	4,829
Tailoring	293,653	28,782	264,871	78,852	214,800	175,794	117,859
Industrial electricity	4,237	4,237	0	3,768	469	444	3,793
Civil construction	6,040	4,488	1,552	4,771	1,269	0	6,040
Nursery growing	993	993	0	437	556	993	0
Milk processing	396	268	129	0	396	129	268
Livestock	1,501	1,191	310	456	1,044	278	1,223

Technical skills learned	Total	Sex		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Food & Beverage services	3,775	1,994	1,781	2,359	1,416	1,145	2,630
Front office	6,864	1,625	5,239	3,510	3,354	1,161	5,703
House keeping	370	0	370	370	0	0	370
Concrete masonry	75	75	0	0	75	75	0
Leather craft	3,304	1,303	2,001	738	2,567	2,642	662
Hairdressing	44,724	10,455	34,269	19,942	24,782	14,877	29,847
Biding and Jewelries	8,469	450	8,019	3,283	5,186	6,054	2,416
Software Development	9,938	6,697	3,241	8,123	1,814	659	9,279
NCDs and Palliative Care Community Health	523	87	436	523	0	0	523
Agri-Business	1,938	758	1,180	270	1,669	1,303	635
Bee Keeping	818	818	0	433	385	818	0
Manicure and Pedicure	180	0	180	180	0	0	180
Beauty therapy	1,522	0	1,522	849	674	992	530
Screen printing	868	625	242	868	0	0	868
Sport and Medical Massage	846	699	147	456	391	0	846
Crochet embroidery	20,390	1,234	19,156	1,067	19,323	15,689	4,701
Pottery	2,316	1,355	961	0	2,316	2,029	287
Motor vehicle engine mechanics	10,149	9,068	1,082	5,825	4,324	2,821	7,328
Film making	1,815	1,122	693	1,521	294	344	1,471
Other	9568	4876	4692	5126	4442	3125	6444

Table 12: Population 16 years old and over who received trade and technical training by sex, place of the training, main sponsor, Outcome of the Training and urban/rural area, February 2017

Place of Technical skills	Total	Sex		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Total	956,772	534,140	422,632	348,037	608,736	420,602	536,170
Vocational School Course	631,918	343,019	288,899	264,379	367,538	252,565	379,352
Apprenticeship or on job Training	124,497	94,901	29,595	41,404	83,092	56,441	68,055
Learned from a friend or Family	138,090	81,199	56,892	32,818	105,273	73,087	65,004
NGO	41,529	10,655	30,875	5,475	36,055	25,681	15,848
Community organization	19,872	3,615	16,257	3,664	16,208	12,827	7,044
Apprenticeship or on job Training	867	753	114	297	569	0	867
Main sponsor							
Government	62685	35255	27429	24292	38393	24619	38065
Employer	2585	2011	573	1791	794	440	2145
Self-financing	546617	303159	243459	219079	327538	224841	321776
Private institutions/agencies/persons	26987	12547	14440	14274	12714	7737	19250
Non-profit organization/charity	109426	53377	56049	38461	70965	44339	65087
International organization	12528	4618	7910	4542	7985	6469	6059
He/she didn't pay	195346	123015	72331	45439	149906	111716	83629
Other(specify)	599	159	440	159	440	440	159
Thing happened after completion of the training							
Nothing	196231	82415	113816	70225	126007	98848	97384
Starting own business	145934	60919	85015	47600	98334	73139	72795
I was able to get a job	193803	152454	41348	95646	98157	62404	131399
My salary increased	2440	2440	0	1202	1238	1325	1116
I was promoted at work	715	456	259	147	568	568	147
My job skills have improved	24000	16335	7665	10895	13105	10833	13167
Got internship/traineeship with a company	11824	4847	6977	4766	7059	4092	7732
Other (specify)	1239	496	743	368	871	979	261

Table 13: Population 16 years old and over by labour force status, sex, age group, and urban/rural area, February 2017

	Total	Labour force status				Labour force participation rate	Employment-population ratio	Unemployment rate
		Labour force	Employed	Unemployed	Outside labour force			
Population 16 yrs and over	6,709,183	3,625,529	3,018,532	606,997	3,083,654	54.0%	45.0%	16.7%
16-24 yrs	2,022,711	859,815	665,935	193,879	1,162,896	42.5%	32.9%	22.5%
25-34 yrs	1,811,081	1,264,209	1,039,446	224,763	546,872	69.8%	57.4%	17.8%
35-54 yrs	1,887,786	1,217,567	1,063,553	154,013	670,220	64.5%	56.3%	12.6%
55-64 yrs	556,130	227,671	198,029	29,643	328,459	40.9%	35.6%	13.0%
65+ yrs	431,475	56,268	51,569	4,699	375,207	13.0%	12.0%	8.4%
Population 16 yrs and over (Male)	3,137,871	1,967,489	1,651,072	316,417	1,170,383	62.7%	52.6%	16.1%
16-24 yrs	975,960	442,831	349,670	93,162	533,129	45.4%	35.8%	21.0%
25-34 yrs	872,251	705,431	597,421	108,010	166,820	80.9%	68.5%	15.3%
35-54 yrs	866,836	660,221	566,608	93,613	206,616	76.2%	65.4%	14.2%
55-64 yrs	250,291	125,723	107,566	18,157	124,568	50.2%	43.0%	14.4%
65+ yrs	172,533	33,283	29,808	3,476	139,249	19.3%	17.3%	10.4%
Population 16 yrs and over (Female)	3,571,312	1,658,041	1,367,460	290,580	1,913,271	46.4%	38.3%	17.5%
16-24 yrs	1,046,750	416,983	316,266	100,718	629,767	39.8%	30.2%	24.2%
25-34 yrs	938,830	558,778	442,025	116,753	380,052	59.5%	47.1%	20.9%
35-54 yrs	1,020,950	557,346	496,945	60,401	463,604	54.6%	48.7%	10.8%

	Total	Labour force status				Labour force participation rate	Employment-population ratio	Unemployment rate
		Labour force	Employed	Unemployed	Outside labour force			
55-64 yrs	305,839	101,948	90,463	11,486	203,891	33.3%	29.6%	11.3%
65+ yrs	258,942	22,985	21,761	1,224	235,957	8.9%	8.4%	5.3%
Population 16 yrs and over (Urban)	1,573,206	1,014,798	831,537	183,261	558,409	64.5%	52.9%	18.1%
16-24 yrs	544,758	253,185	198,059	55,127	291,573	46.5%	36.4%	21.8%
25-34 yrs	480,529	383,246	311,975	71,271	97,283	79.8%	64.9%	18.6%
35-54 yrs	415,091	329,896	282,637	47,259	85,194	79.5%	68.1%	14.3%
55-64 yrs	79,707	40,177	31,692	8,485	39,530	50.4%	39.8%	21.1%
65+ yrs	53,121	8,293	7,174	1,119	44,828	15.6%	13.5%	13.5%
Population 16 yrs and over (Rural)	5,135,977	2,610,732	2,186,995	423,736	2,525,245	50.8%	42.6%	16.2%
16-24 yrs	1,477,953	606,630	467,877	138,753	871,323	41.0%	31.7%	22.9%
25-34 yrs	1,330,552	880,963	727,471	153,491	449,590	66.2%	54.7%	17.4%
35-54 yrs	1,472,696	887,670	780,916	106,754	585,025	60.3%	53.0%	12.0%
55-64 yrs	476,423	187,494	166,336	21,158	288,928	39.4%	34.9%	11.3%
65+ yrs	378,353	47,975	44,395	3,580	330,379	12.7%	11.7%	7.5%

Table 14: Population 16 years old and over by labour force status, sex, educational attainment, and urban/rural area, February 2017

	Total	Labour force status				Labour force participation rate	Employment-to population ratio	Unemployment rate
		Labour force	Employed	Unemployed	Outside labour force			
Population 16 yrs and over	6,709,183	3,625,529	3,018,532	606,997	3,083,654	54.0	45.0	16.7
None	3,376,362	1,800,826	1,542,386	258,440	1,575,536	53.3	45.7	14.4
Primary	1,946,227	1,041,929	873,209	168,720	904,298	53.5	44.9	16.2
Lower secondary	551,176	198,389	150,309	48,081	352,786	36.0	27.3	24.2
Upper secondary	571,358	355,416	260,067	95,348	215,942	62.2	45.5	26.8
University	264,061	228,969	192,561	36,408	35,092	86.7	72.9	15.9

Table 15: Population 16 years old and over by labour force status, sex, marital status, and urban/rural area, February 2017

	Total	Labor force status				Labor force participation rate	Employment-population ratio	Unemployment rate
		Labor force	Employed	Unemployed	Outside labor force			
Population 16 yrs and over	6709183	3625529	3018532	606997	3083654	54.0	45.0	16.7
Married	2,626,031	1484222	1262256	221966	1141809	56.5	48.1	15.0
Living together	878,165	607493	515539	91954	270671	69.2	58.7	15.1
Divorced/separated	211,042	147751	131778	15973	63291	70.0	62.4	10.8
Single	2,496,230	1214751	955980	258772	1281478	48.7	38.3	21.3
Widow/widower	497,716	171312	152980	18332	326404	34.4	30.7	10.7

Table 16: Employed population by sex, age group, and urban/rural area, February 2017

	Total	Sex		Residential area		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Employed population 16+	3,018,532	1,651,072	1,367,460	831,537	2,186,995	1,447,220	1,571,312
16-19 yrs	230,765	114,821	115,944	64,345	166,419	86,615	144,149
20-24 yrs	435,170	234,849	200,322	133,713	301,457	175,282	259,889
25-29 yrs	518,864	289,028	229,836	163,732	355,132	209,513	309,351
30-34 yrs	520,582	308,393	212,190	148,243	372,340	240,940	279,643
35- 39 yrs	418,702	236,863	181,839	119,363	299,339	218,637	200,065
40-44 yrs	270,713	136,399	134,314	81,158	189,556	138,757	131,956
45-49 yrs	215,257	108,215	107,042	52,395	162,862	124,104	91,153
50-54 yrs	158,881	85,131	73,750	29,722	129,160	99,414	59,468
55-59 yrs	129,700	69,802	59,898	19,889	109,811	84,739	44,961
60-64 yrs	68,328	37,764	30,564	11,803	56,525	39,873	28,455
65-69 yrs	29,330	16,030	13,300	3,755	25,575	17,322	12,008
70-74 yrs	11,399	7,848	3,551	1,320	10,079	5,311	6,088
75+	10,839	5,930	4,910	2,098	8,741	6,713	4,127

Table 17: Employed population by sex, occupation group, and urban/rural area, February 2017

ISCO High level	Total	Sex		Residential area		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Total	3,018,532	1,651,072	1,367,460	831,537	2,186,995	1,447,220	1,571,312
Managers	38,617	22,166	16,451	31,392	7,225	1,548	37,069
Professionals	170,530	108,769	61,761	87,057	83,473	31,614	138,916
Technicians and associate professionals	47,681	30,108	17,574	33,744	13,938	5,228	42,453
Clerical support workers	30,652	13,193	17,459	25,063	5,589	4,188	26,464
Service and sales workers	518,946	251,781	267,165	200,670	318,276	188,009	330,938
Skilled agricultural, forestry and fishing	163,450	101,217	62,233	11,186	152,264	20,644	142,806
Craft and related trades workers	248,444	194,999	53,445	86,643	161,801	101,599	146,845
Plant and machine operators and assemble	80,178	77,589	2,590	44,035	36,144	16,021	64,158
Elementary occupations	1,720,033	851,249	868,783	311,748	1,408,285	1,078,369	641,663

Table 18: Employed population by sex, current education attendance, and urban/rural area, February 2017

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Employed population	3,018,532	1,651,072	1,367,460	831,537	2,186,995	1,447,220	1,571,312
Currently studying	66,669	43,589	23,080	34,375	32,294	13,002	53,667
Not currently studying	2,951,863	1,607,483	1,344,380	797,162	2,154,701	1,434,218	1,517,645

Table 19: Employed population by sex, educational attainment, and urban/rural area, February 2017

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Employed population	3,018,532	1,651,072	1,367,460	831,537	2,186,995	1,447,220	1,571,312
None	1,542,386	804,446	737,940	239,298	1,303,088	934,009	608,377
Primary	873,209	493,657	379,552	240,053	633,156	404,787	468,422
Lower secondary	150,309	86,109	64,200	69,954	80,355	44,045	106,264
Upper secondary	260,067	147,633	112,434	134,124	125,943	49,950	210,118
University	192,561	119,227	73,334	148,107	44,453	14,429	178,131

Table 20: Employed population by sex, occupation group and level of educational attainment, February 2017

	Total	None	Primary	Lower secondary	Upper secondary	University
Employed population	3,018,532	1,542,386	873,209	150,309	260,067	192,561
Managers	38,617	0	0	923	6,805	30,889
Professionals	170,530	2,327	6,054	7,173	64,867	90,108
Technicians and Associate Professionals	47,681	751	5,241	2,439	12,626	26,625
Clerical Support Workers	30,652	1,988	1,837	1,571	10,619	14,636
Service and Sales Workers	518,946	179,740	188,532	40,573	86,455	23,647
Skilled Agricultural, Forestry and Fishery Workers	163,450	83,428	66,083	6,494	5,796	1,649
Craft and Related Trades Workers	248,444	82,543	106,930	27,460	27,363	4,149
Plant and Machine Operators and Assemblers	80,178	27,210	32,326	10,192	9,714	736
Elementary Occupations	1,720,033	1,164,400	466,207	53,484	35,822	120
Employed population (Male)	1,651,072	804,446	493,657	86,109	147,633	119,227
Managers	22,166	0	0	467	4,932	16,767
Professionals	108,769	2,327	5,848	5,887	33,713	60,993
Technicians and Associate Professionals	30,108	0	4,290	1,808	8,764	15,246

	Total	None	Primary	Lower secondary	Upper secondary	University
Clerical Support Workers	13,193	449	918	1,098	4,095	6,633
Service and Sales Workers	251,781	79,267	97,990	22,245	38,279	14,001
Skilled Agricultural, Forestry and Fishery Workers	101,217	51,022	42,759	2,739	3,487	1,210
Craft and Related Trades Workers	194,999	66,992	82,116	17,660	24,319	3,912
Plant and Machine Operators and Assemblers	77,589	26,953	32,117	9,314	8,740	465
Elementary Occupations	851,249	577,436	227,619	24,891	21,303	-
Employed population (Female)	1,367,460	737,940	379,552	64,200	112,434	73,334
Managers	16,451	0	0	456	1,873	14,121
Professionals	61,761	0	206	1,286	31,154	29,116
Technicians and Associate Professionals	17,574	751	951	631	3,861	11,379
Clerical Support Workers	17,459	1,539	919	473	6,524	8,003
Service and Sales Workers	267,165	100,473	90,542	18,328	48,176	9,646
Skilled Agricultural, Forestry and Fishery Workers	62,233	32,406	23,324	3,755	2,309	440
Craft and Related Trades Workers	53,445	15,551	24,814	9,800	3,044	236
Plant and Machine Operators and Assemblers	2,590	257	209	878	974	272
Elementary Occupations	868,783	586,964	238,587	28,593	14,519	120

Table 21: Employed population by sex, branch of economic activity, and urban/rural area, February 2017

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Employed population	3,018,532	1,651,072	1,367,460	831,537	2,186,995	1,447,220	1,571,312
Agriculture, forestry and fishing	1,385,421	626,483	758,938	87,000	1,298,422	941,214	444,208
Mining and quarrying	40,735	36,906	3,829	2,370	38,364	17,243	23,492
Manufacturing	137,201	79,057	58,144	47,834	89,367	58,544	78,657
Electricity, gas, steam and air conditioning supply	9,437	8,917	520	4,581	4,856	3,202	6,235
Water supply, sewerage and waste management	7,930	4,937	2,994	2,551	5,379	3,050	4,880
Construction	239,471	194,907	44,564	69,613	169,858	107,233	132,238
Wholesale, retail trade, repair of motor vehicles, motorcycles	451,178	233,862	217,317	183,628	267,550	179,977	271,202
Transportation and storage	131,077	123,160	7,918	62,303	68,774	35,002	96,075
Accommodation and food service activities	39,601	21,038	18,563	26,982	12,619	6,641	32,960
Information and communication	8,180	4,826	3,354	5,311	2,869	768	7,411
Financial and insurance activities	23,564	12,404	11,160	17,283	6,281	871	22,693
Real estate activities	3,449	2,126	1,323	2,213	1,236	861	2,587
Professional, scientific and technical activities	20,669	15,513	5,155	17,036	3,633	1,084	19,585

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Administrative and support service activities	45,143	33,442	11,701	24,600	20,543	5,501	39,641
Public administration and defence	53,091	39,037	14,054	29,620	23,471	8,563	44,528
Education	106,087	62,305	43,782	36,590	69,497	33,716	72,371
Human health and social work activities	46,251	23,388	22,863	29,113	17,138	6,409	39,842
Arts, entertainment and recreation	6,427	3,731	2,696	4,076	2,351	1,601	4,826
Other service activities	44,275	26,641	17,634	19,972	24,303	13,090	31,185
Activities of households as employers	213,697	95,057	118,640	154,540	59,157	22,019	191,678
Activities of extraterritorial organizations and bodies	5,649	3,335	2,314	4,323	1,326	631	5,018

Table 22: Employed population by sex, branch of economic activity and level of educational attainment, February 2017

	Total	None	Primary	Lower secondary	Upper secondary	University
Employed population	3,018,532	1,542,386	873,209	150,309	260,067	192,561
Agriculture, forestry and fishing	1,385,421	966,717	353,205	31,492	26,043	7,964
Mining and quarrying	40,735	25,638	11,178	2,872	1,047	0
Manufacturing	137,201	49,954	52,125	16,995	13,909	4,218
Electricity, gas, steam and air conditioning supply	9,437	1,554	1,248	1,019	3,862	1,754
Water supply, sewerage and waste management	7,930	1,904	2,773	607	1,713	933
Construction	239,471	102,376	95,916	14,658	18,795	7,727
Wholesale, retail trade, repair of motor vehicles, motorcylces	451,178	178,110	161,824	29,859	60,497	20,888
Transportation and storage	131,077	62,222	45,424	8,016	11,091	4,323
Accommodation and food service activities	39,601	8,524	9,294	5,115	13,769	2,899
Information and communication	8,180	221	847	434	3,562	3,115
Financial and insurance activities	23,564	556	696	1,068	4,424	16,820
Real estate activities	3,449	962	1,121	147	218	1,000
Professional, scientific and technical activities	20,669	617	2,003	656	3,302	14,090
Administrative and support service activities	45,143	8,710	10,101	4,384	15,558	6,390
Public administration and defence	53,091	9,398	8,601	4,739	8,690	21,663
Education	106,087	6,922	5,864	3,643	48,332	41,327
Human health and social work activities	46,251	3,076	5,241	1,736	8,907	27,290
Arts, entertainment and recreation	6,427	712	2,261	1,475	1,174	805
Other service activities	44,275	11,513	17,389	5,580	5,196	4,598
Activities of households as employers	213,697	102,700	85,371	15,569	9,334	723
Activities of extraterritorial organizations and bodies	5,649	0	727	246	642	4,034
Employed population (Male)	1,651,072	804,446	493,657	86,109	147,633	119,227
Agriculture, forestry and fishing	626,483	426,252	167,181	14,565	13,374	5,111

	Total	None	Primary	Lower secondary	Upper secondary	University
Mining and quarrying	36,906	23,155	10,215	2,872	664	0
Manufacturing	79,057	33,943	28,604	5,968	8,588	1,954
Electricity, gas, steam and air conditioning supply	8,917	1,554	1,248	1,019	3,743	1,353
Water supply, sewerage and waste management	4,937	1,221	1,316	607	1,196	596
Construction	194,907	82,202	77,581	13,203	16,871	5,050
Wholesale, retail trade, repair of motor vehicles, motorcylces	233,862	92,028	87,524	15,559	27,251	11,499
Transportation and storage	123,160	58,060	43,982	8,016	10,929	2,173
Accommodation and food service activities	21,038	5,238	5,270	2,032	6,770	1,727
Information and communication	4,826	221	443	393	1,495	2,275
Financial and insurance activities	12,404	282	376	637	1,843	9,265
Real estate activities	2,126	962	260	0	218	686
Professional, scientific and technical activities	15,513	617	1,788	656	2,699	9,753
Administrative and support service activities	33,442	5,435	7,990	3,298	11,502	5,216
Public administration and defence	39,037	6,503	6,645	3,877	6,939	15,073
Education	62,305	5,676	4,507	2,444	23,899	25,779
Human health and social work activities	23,388	966	3,409	523	3,267	15,222
Arts, entertainment and recreation	3,731	183	959	1,378	588	624
Other service activities	26,641	8,355	10,249	1,906	2,607	3,525
Activities of households as employers	95,057	51,594	33,480	6,910	2,858	216
Activities of extraterritorial organizations and bodies	3,335	0	631	246	330	2,129
Employed population (Female)	1,367,460	737,940	379,552	64,200	112,434	73,334
Agriculture, forestry and fishing	758,938	540,465	186,025	16,927	12,669	2,852
Mining and quarrying	3,829	2,483	963	0	383	0
Manufacturing	58,144	16,011	23,521	11,026	5,321	2,264
Electricity, gas, steam and air conditioning supply	520	0	0	0	118	402

	Total	None	Primary	Lower secondary	Upper secondary	University
Water supply, sewerage and waste management	2,994	683	1,457	0	517	337
Construction	44,564	20,174	18,335	1,455	1,924	2,677
Wholesale, retail trade, repair of motor vehicles, motorcylces	217,317	86,082	74,300	14,300	33,246	9,388
Transportation and storage	7,918	4,162	1,442	0	163	2,151
Accommodation and food service activities	18,563	3,286	4,024	3,083	6,998	1,172
Information and communication	3,354	0	404	42	2,067	841
Financial and insurance activities	11,160	274	320	431	2,581	7,554
Real estate activities	1,323	0	861	147	0	314
Professional, scientific and technical activities	5,155	0	215	0	604	4,337
Administrative and support service activities	11,701	3,275	2,111	1,086	4,056	1,174
Public administration and defence	14,054	2,895	1,956	862	1,751	6,590
Education	43,782	1,246	1,357	1,199	24,432	15,548
Human health and social work activities	22,863	2,110	1,832	1,213	5,640	12,068
Arts, entertainment and recreation	2,696	529	1,303	98	586	180
Other service activities	17,634	3,158	7,140	3,673	2,589	1,073
Activities of households as employers	118,640	51,106	51,891	8,659	6,476	507
Activities of extraterritorial organizations and bodies	2,314	0	96	0	313	1,905

Table 23: Employed population by sex, status in employment, and urban/rural area, February 2017

	Total	Sex		Area of Residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Employed population	3,018,532	1,651,072	1,367,460	831,537	2,186,995	1,447,220	1,571,312
Employee, Paid apprentice/intern	2,165,992	1,182,258	983,734	565,931	1,600,062	1,153,222	1,012,770
Employer	39,176	28,591	10,585	20,964	18,212	6,407	32,769
Own-account worker	679,578	406,697	272,882	210,750	468,828	256,113	423,465
Member of cooperative	14,970	7,942	7,028	1,091	13,879	3,434	11,536
Contributing family worker	118,437	25,585	92,852	32,622	85,816	28,043	90,394
Other	379	-	379	179	199	-	379

Table 24: Employed population by sex, hours usually worked per week at all jobs, and urban/rural area, February 2017

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Employed population	3,018,52	1,651,02	1,367,460	831,537	464,850	366,687	2,186,995	1,186,222	1,000,773
less than 24 hours	781,962	346,028	435,935	88,110	41,198	46,912	693,852	304,830	389,023
25-34 hours	395,905	185,001	210,905	53,650	24,964	28,686	342,255	160,037	182,219
35-40 hours	589,046	318,500	270,546	116,587	65,726	50,861	472,459	252,774	219,685
41-48 hours	476,221	294,449	181,772	164,398	93,910	70,487	311,823	200,539	111,284
49-61 hours	391,710	252,761	138,949	189,916	112,220	77,696	201,793	140,540	61,253

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
62-79 hours	256,770	165,706	91,063	144,415	79,449	64,966	112,355	86,258	26,097
80 hours+	126,919	88,628	38,291	74,461	47,382	27,079	52,458	41,245	11,212

Table 25: Employees by sex, duration of employment contract at main job and urban /rural area, February 2017

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Total employees 16+	2,165,992	1,182,258	983,734	565,931	1,600,062	1,153,222	1,012,770
Permanent (without a known limited duration)	518,825	312,218	206,607	305,563	213,262	81,323	437,502
Temporary contract	1,647,167	870,040	777,127	260,368	1,386,799	1,071,899	575,268
- Day	1,305,458	657,559	647,899	133,105	1,172,352	952,830	352,628
- Week	91,893	56,426	35,467	17,515	74,378	50,930	40,963
- Month	141,052	89,637	51,415	57,026	84,026	37,568	103,483
- Less than one year	51,775	28,814	22,961	16,502	35,273	21,383	30,392
- One year or more	56,990	37,605	19,385	36,219	20,770	9,188	47,801

Table 26: Employed population by sex, formal/informal sector employment, status in employment at main job and urban/rural area, February 2017

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Employed population 16+ in formal and informal sector	2837503	1576484	1261019	696635	2140868	1432668	1404833
Formal sector	482,633	311,098	171,535	247,196	235,437	114,579	368,053
Employee	431,902	278,537	153,366	217,006	214,896	104,668	327,234
Employer (with regular employees)	12,917	9,905	3,012	11,482	1,435	1,329	11,588
account worker(without regular empl	26,194	18,304	7,890	14,620	11,574	6,124	20,071
Member of cooperative	6,716	3,540	3,176	524	6,193	1,489	5,227
Contributing family worker	4902	812	4,091	3563	1339	969	3,933
Informal sector	2,354,870	1,265,386	1,089,484	449,439	1,905,431	1,318,089	1,036,780
- Employee	1,555,010	829,895	725,115	214,547	1,340,463	1,034,597	520,413
- Employer	26,259	18,686	7,573	9,481	16,778	5,078	21,181
- Own-account worker	651,569	387,766	263,804	195,606	455,964	249,396	402,174
- Member of cooperative	8,253	4,401	3,852	567	7,686	1,945	6,308
- Contributing family worker	113,400	24,639	88,761	29,058	84,342	27,074	86,326
- Other	379	0	379	179	199	0	379
Formal sector out of agriculture	418,629	271,800	146,830	238,774	179,855	78,219	340,411
Employee	377,737	244,860	132,877	209,200	168,537	71,328	306,409
Employer (with regular employees)	11,927	9,211	2,716	11,087	840	1,060	10,867
account worker(without regular empl	23,901	16,627	7,274	14,401	9,500	4,879	19,022
Member of cooperative	1,162	566	596	524	638	431	731
Contributing family worker	3903	536	3,367	3563	340	520	3,383

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Informal sector out of agriculture	1,043,394	686,588	356,806	372,879	670,515	416,341	627,053
- Employee	466,171	368,904	97,268	159,383	306,788	176,460	289,711
- Employer	14,439	11,216	3,224	7,036	7,404	4,227	10,213
- Own-account worker	502,822	291,367	211,455	180,956	321,866	216,051	286,771
- Member of cooperative	3,041	2,770	271	367	2,674	1,541	1,500
- Contributing family worker	56,741	12,333	44,408	24,958	31,783	18,062	38,679
- Other	179	0	179	179	0	0	179

Table 27: Formal and informal employment by sex, branch of economic activity, February 2017

Economic activity	Total			Male		Female	
	Total	Formal employment	Informal employment	Formal employment	Informal employment	Formal employment	Informal employment
Total	3,018,52	270,631	2,747,901	171,869	1,479,203	98,762	1,268,698
Agriculture, forestry and fishing	1,385,421	10,353	1,375,068	7,015	619,468	3,338	755,600
Mining and quarrying	40,735	1,323	39,412	940	35,966	383	3,446
Manufacturing	137,201	7,398	129,803	5,760	73,297	1,638	56,506
Electricity, gas, steam and air conditioning supply	9,437	1907	7,530	1505	7,412	402	118
Water supply, sewerage and waste management	7,930	1,112	6,819	775	4,162	337	2,657
Construction	239,471	5,115	234,356	3,995	190,912	1120	43,444
Wholesale, retail trade, repair of motor vehicles, motorcycles	451,178	9,568	441,610	6,029	227,833	3,540	213,777
Transportation and storage	131,077	4,679	126,398	2,842	120,317	1837	6,081
Accommodation and food service activities	39,601	6,291	33,310	3,612	17,425	2,678	15,885
Information and communication	8,180	2,534	5,646	1,924	2,902	610	2,743
Financial and insurance activities	23,564	20,055	3,509	10,366	2,038	9,689	1,471
Real estate activities	3449	314	3134	0	2126	314	1008
Professional, scientific and technical activities	20,669	6,508	14,160	3,948	11,566	2,561	2,595
Administrative and support service activities	45,143	24,527	20,615	19,927	13,514	4,600	7,101
Public administration and defense	53,091	36,639	16,452	29,557	9,480	7,082	6,972
Education	106,087	81,927	24,160	46,868	15,438	35,059	8,722
Human health and social work activities	46,251	36,332	9,918	17,584	5,804	18,749	4,115
Arts, entertainment and recreation	6,427	901	5,526	448	3,283	453	2,243
Other service activities	44,275	7,549	36,726	5,608	21,033	1,941	15,693
Activities of households as employers	213,697	1,322	212,375	1,074	93,983	248	118,392
Activities of extraterritorial organizations and bodies	5,649	4,276	1,374	2,092	1,244	2,184	130

Table 28: Formal and informal Sector by sex, branch of economic activity, February 2017

	Total			Male		Female	
	Formal/Informal sector employment			Formal/Informal sector employment		Formal/Informal sector employment	
	Total	Informal sector	Formal sector	Informal sector	Formal sector	Informal sector	Formal sector
Total	2,837,503	2,354,870	482,633	1,265,386	311,098	1,089,484	171,535
Agriculture, forestry and fishing	1,375,479	1,311,476	64,004	578,798	39,298	732,678	24,705
Mining and quarrying	40,277	23,288	16,989	21,284	15,165	2,004	1,824
Manufacturing	137,201	116,819	20,382	66,385	12,672	50,434	7,710
Electricity, gas, steam and air conditioning supply	9,437	5,072	4,365	5,072	3,845	0	520
Water supply, sewerage and waste management	7,519	4,758	2,760	2,605	1,920	2,153	840
Construction	239,016	202,812	36,203	171,580	23,327	31,232	12,877
Wholesale, retail trade, repair of motor vehicles, motorcylces	448,852	395,788	53,063	199,596	33,662	196,193	19,401
Transportation and storage	130,971	116,836	14,135	111,592	11,461	5,244	2,674
Accommodation and food service activities	39,546	23,485	16,061	11,258	9,725	12,227	6,337
Information and communication	8,138	3,495	4,643	1,368	3,458	2,127	1,185
Financial and insurance activities	23,564	1,354	22,210	1,004	11,400	350	10,810
Real estate activities	3449	2563	886	1,555	571	1008	314
Professional, scientific and technical activities	20,669	7,168	13,501	6,575	8,938	593	4,563
Administrative and support service activities	44,890	15,233	29,657	11,021	22,168	4,212	7,489
Public administration and defense	53,091	13,150	39,941	8,030	31,008	5,120	8,933
Education	106,087	19,215	86,872	9,930	52,376	9,286	34,496
Human health and social work activities	46,251	7,449	38,802	3,955	19,433	3,494	19,369
Arts, entertainment and recreation	6,427	4,046	2,381	2,477	1,254	1,569	1,127
Other service activities	44,275	33,367	10,908	20,322	6,320	13,045	4,588
Activities of households as employers	46,716	46,047	669	30,208	536	15,839	133
Activities of extraterritorial organizations and bodies	5,649	1,448	4,201	774	2,561	674	1,639

Table 29: Average number of hours usually worked per week at main job by sex, branch of economic activity, urban/rural area February 2017

	Rwanda			Urban		Rural	
	Total	Male	Female	Male	Female	Male	Female
Employed population	39.1	42.1	35.5	50.5	34.8	31.0	46.6
Agriculture, forestry and fishing	30.1	32.7	27.9	36.2	29.7	28.2	34.0
Mining and quarrying	41.8	41.7	42.9	36.7	42.1	37.4	45.0
Manufacturing	41.0	45.4	35.2	47.9	37.4	32.6	47.3
Electricity, gas, steam and air conditioning supply	46.0	45.8	49.5	45.3	46.6	48.8	44.5
Water supply, sewerage and waste management	42.5	37.5	50.7	45.9	40.9	38.8	44.8
Construction	41.8	42.9	37.0	45.1	40.5	37.3	45.5
Wholesale, retail trade, repair of motor vehicles, motorcycles	43.2	46.0	40.2	50.7	38.1	32.8	50.1
Transportation and storage	50.2	50.2	49.5	56.0	44.9	35.9	55.4
Accommodation and food service activities	54.4	54.4	54.4	55.8	51.2	29.0	59.5
Information and communication	52.1	49.0	56.5	52.3	51.5	58.4	51.4
Financial and insurance activities	52.3	52.2	52.5	52.2	52.6	65.2	51.8
Real estate activities	39.2	53.4	16.3	46.9	25.4	6.0	50.2
Professional, scientific and technical activities	43.6	42.9	45.4	46.7	28.7	24.2	44.6
Administrative and support service activities	60.8	63.1	54.2	59.6	62.3	61.1	60.8
Public administration and defense	52.5	55.7	43.6	55.3	48.8	36.6	55.5
Education	44.4	45.6	42.6	43.9	44.6	43.1	45.0
Human health and social work activities	48.7	49.8	47.6	48.6	49.0	39.3	50.2
Arts, entertainment and recreation	38.8	44.4	31.1	36.3	43.3	26.8	42.8
Other service activities	47.9	53.0	40.1	48.7	47.2	38.8	51.7
Activities of households as employers	57.2	55.2	58.8	59.6	50.9	45.5	58.5
Activities of extraterritorial organizations and bodies	42.2	40.5	44.7	44.3	35.6	25.2	44.4

Table 30: Average monthly cash income from employment of employees at main job by sex, age group, level of educational attainment, occupation group and urban/rural area, February 2017

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total (16+ yrs)	55,934	69,301	39,979	131,033	160,395	91,068	29,615	34,760	23,746
16-24 yrs	23,733	26,280	21,065	27,674	34,230	22,374	21,964	23,328	20,358
25-34 yrs	59,371	69,058	46,097	124,350	135,011	107,092	33,448	40,126	24,874
35-54 yrs	69,245	84,450	51,847	190,770	206,584	164,573	32,707	39,248	25,992
55-64 yrs	90,222	150,485	23,108	557,657	736,884	72,957	22,465	25,737	19,227
65+ yrs	28,001	34,103	18,903	121,477	119,495	145,440	19,905	22,128	16,954
None	22,550	26,234	18,716	30,261	37,906	21,123	21,261	24,127	18,347
Primary	34,957	44,966	22,069	48,269	69,321	23,597	30,335	36,974	21,500
Lower secondary	61,050	73,893	38,051	65,962	81,131	40,281	56,979	68,112	36,075
Upper secondary	81,143	87,625	71,259	105,886	112,837	93,918	57,726	61,458	52,638
University	339,046	384,681	268,077	404,334	466,678	308,153	136,660	133,740	141,315
Managers	418,974	439,086	394,468	481,816	514,558	440,904	169,634	122,011	222,183
Professionals	204,115	241,755	141,877	325,924	371,685	234,427	83,421	93,809	69,071
Technicians and associate professions	292,753	348,680	202,826	382,226	477,961	237,350	101,726	91,960	119,656

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Clerical support workers	157,562	154,527	159,569	171,576	175,277	169,360	90,916	81,955	100,217
Service and sales workers	64,371	58,589	78,923	86,611	80,632	99,835	42,898	38,830	54,582
Skilled agricultural, forestry and fishery workers	22,684	25,320	19,355	200,000	200,000		19,140	18,963	19,355
Craft and related trades workers	86,930	88,485	53,468	118,553	122,472	68,358	70,875	71,982	35,336
Plant and machine operators, and assemblers	103,324	104,273	47,811	128,102	129,269	62,915	65,750	66,444	22,028
Elementary occupations	21,905	24,882	19,171	26,039	32,974	20,356	21,045	23,318	18,908

Table 31: Median monthly cash income from employment of employees at main job by sex, age group, level of educational attainment, occupation group and urban/rural area, February 2017

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total (16+ yrs)	20,800	26,000	18,200	40,000	65,000	25,000	18,200	20,800	18,200
16-24 yrs	18,200	18,200	15,600	15,000	20,000	15,000	18,200	18,200	18,200
25-34 yrs	26,000	30,000	18,200	60,000	78,000	31,200	20,800	26,000	18,200
35-54 yrs	21,667	26,000	20,800	86,667	100,000	65,000	20,800	23,833	18,200
55-64 yrs	18,200	20,800	18,200	66,667	87,000	26,000	18,200	18,200	18,200
65+ yrs	18,200	18,200	18,200	25,000	25,000	200,000	18,200	18,200	18,200
None	18,200	20,000	18,200	20,000	26,000	17,000	18,200	18,200	18,200
Primary	20,800	26,000	18,200	25,000	40,000	17,333	20,800	26,000	18,200
Lower secondary	30,000	45,000	23,400	40,000	52,000	26,000	26,000	37,500	20,800
Upper secondary	52,000	66,667	47,000	70,000	80,000	50,000	46,000	47,000	45,000
University	200,000	200,000	200,000	200,000	250,000	200,000	120,000	120,000	130,000
Managers	230,000	200,000	230,000	300,000	371,500	230,000	104,000	75,000	250,000
Professionals	100,000	120,000	64,000	200,000	200,000	160,000	50,000	58,000	49,000
Technicians and associate professions	180,000	180,000	172,000	200,000	200,000	200,000	100,000	100,000	130,000
Clerical support workers	125,000	108,000	125,000	150,000	150,000	125,000	43,333	43,333	108,000
Service and sales workers	37,500	35,000	40,000	50,000	50,000	50,000	26,000	26,000	25,000
Skilled agricultural, forestry and fishery workers	18,200	15,600	18,200	200,000	200,000		18,200	15,600	18,200
Craft and related trades workers	65,000	66,667	52,000	100,000	100,000	52,000	57,200	60,000	13,000
Plant and machine operators, and assemblers	80,000	80,000	39,000	100,000	100,000	39,000	39,000	39,000	10,400
Elementary occupations	18,200	20,000	18,200	20,000	25,000	15,600	18,200	18,200	18,200

Table 32: Size distribution of monthly cash income from employment of employees at main job by sex and urban/rural area, February 2017

	Total	Rwanda			Urban			Rural		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	2165992	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 20,000 RWF	947024	43.7	34.6	54.7	24.5	15.5	36.8	50.5	41.9	60.4
20,000 – 29,999 RWF	509456	23.5	22.2	25.2	15.7	13.0	19.5	26.3	25.7	27.0
30,000 – 49,999 RWF	236098	10.9	13.3	8.0	11.0	10.9	11.2	10.9	14.2	7.0
50,000 – 99,999 RWF	207632	9.6	14.0	4.3	15.8	21.3	8.2	7.4	11.2	3.1
100,000 RWF and above	249066	11.5	14.9	7.4	31.6	37.4	23.5	4.4	6.3	2.3
Not stated	16715	0.8	1.1	0.4	1.4	1.9	0.8	0.5	0.8	0.3

Table 33: Median/Mean cash income from employment of employees at main job by Quintiles sex and urban/rural area, February 2017

Median	Rwanda				Urban			Rural		
	Total	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	2,174,332	20,800	26,000	18,200	40,000	65,000	25,000	18,200	20,800	18,200
Quintile1	484,166	13,000	12,000	13,000	10,000	12,000	10,000	13,000	12,000	13,000
Quintile2	527,638	18,200	18,200	18,200	18,000	18,000	18,200	18,200	18,200	18,200
Quintile3	463,861	25,000	25,000	21,667	23,400	24,000	20,800	25,000	26,000	22,000
Quintile4	378,539	39,000	39,000	39,000	39,000	39,000	37,500	39,000	39,000	39,000
Quintile5	320,128	104,000	100,000	140,000	150,000	145,000	200,000	78,000	78,000	80,000
Mean	Rwanda				Urban			Rural		
	Total	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	2174332	55,442	68,819	39,572	129,966	160,252	89,503	29,412	34,512	23,606
Quintile1	484,166	10,970	10,753	11,150	11,393	11,820	11,158	10,830	10,495	11,146
Quintile2	527,638	17,174	17,219	17,144	17,289	17,140	17,376	17,169	17,222	17,131
Quintile3	463,861	23,458	23,691	23,212	22,953	23,167	22,759	23,563	23,791	23,315
Quintile4	378,539	37,713	37,542	38,050	37,916	38,606	36,924	37,634	37,189	38,634
Quintile5	320,128	195,653	191,444	208,499	258,454	260,784	252,496	104,335	101,205	117,110

Table 34: Youth and Young Population by sex, and residential area, February 2017

		Sex			Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Total	Male	Female	Urban	Rural		
Young Population 16-30yrs		3,137,719	1,502,056	1,635,663	859,096	2,278,623	1,300,603	1,837,116
Employed	16-24	665,935	349,670	316,266	198,059	467,877	261,897	404,038
	16-30	1,294,345	699,607	594,738	393,422	900,923	521,116	773,229
Unemployed	16-24	193,879	93,162	100,718	55,127	138,753	109,374	84,505
	16-30	343,242	164,322	178,920	104,888	238,354	185,437	157,805
Outside Labour Force	16-24	1,162,896	533,129	629,767	291,573	871,323	388,158	774,738
	16-30	1,500,132	638,127	862,005	360,786	1,139,346	594,050	906,083

Table 35: Young population 16–30 years old by sex, level of educational attainment, labour force status and urban/rural area, February 2017

	Total	Labour force status				Labour force participation rate	Employment-to population ratio	Unemployment rate
		Labour force	Employed	Unemployed	Outside labour force			
Young population 16-30 yrs	3137719	1637587	1294345	343242	1500132	52.2	41.3	21.0
None	1220543	737303	615119	122184	483240	60.4	50.4	16.6
Primary	968663	472724	383498	89227	495939	48.8	39.6	18.9
Lower secondary	435547	125818	95005	30814	309729	28.9	21.8	24.5
Upper secondary	420438	228201	147534	80667	192236	54.3	35.1	35.3
University	92528	73540	53190	20351	18988	79.5	57.5	27.7
Young population 16-30 yrs (Male)	1502056	863929	699607	164322	638127	57.5	46.6	19.0
None	602491	397759	334008	63752	204732	66.0	55.4	16.0

	Total	Labour force status				Labour force participation rate	Employment-to population ratio	Unemployment rate
		Labour force	Employed	Unemployed	Outside labour force			
Primary	445576	245332	207747	37584	200244	55.1	46.6	15.3
Lower secondary	201363	66922	52511	14411	134442	33.2	26.1	21.5
Upper secondary	206325	116872	76425	40448	89452	56.6	37.0	34.6
University	46301	37044	28917	8127	9257	80.0	62.5	21.9
Young population 16-30 yrs (Female)	1635663	773658	594738	178920	862005	47.3	36.4	23.1
None	618051	339543	281111	58432	278508	54.9	45.5	17.2
Primary	523088	227392	175750	51642	295696	43.5	33.6	22.7
Lower secondary	234184	58897	42494	16403	175287	25.1	18.1	27.9
Upper secondary	214113	111329	71110	40219	102784	52.0	33.2	36.1
University	46227	36496	24273	12223	9731	79.0	52.5	33.5
Young population 16-30 yrs (Urban)	859096	498310	393422	104888	360786	58.0	45.8	21.0
None	184393	139640	123392	16248	44753	75.7	66.9	11.6
Primary	230247	139338	118584	20754	90909	60.5	51.5	14.9
Lower secondary	158243	52267	39078	13188	105976	33.0	24.7	25.2
Upper secondary	216248	110533	70853	39680	105715	51.1	32.8	35.9
University	69965	56532	41515	15017	13433	80.8	59.3	26.6
Young population 16-30 yrs (Rural)	2278623	1139277	900923	238354	1139346	50.0	39.5	20.9
None	1036150	597663	491727	105936	438487	57.7	47.5	17.7
Primary	738417	333386	264914	68472	405031	45.1	35.9	20.5
Lower secondary	277304	73552	55926	17626	203752	26.5	20.2	24.0
Upper secondary	204190	117669	76682	40987	86521	57.6	37.6	34.8
University	22563	17008	11674	5334	5555	75.4	51.7	31.4

Table 36: Youth Unemployed by sex, duration of seeking employment, and urban/rural area, February 2017

	Rwanda			Urban		Rural	
	Total	Male	Female	Male	Female	Male	Female
Youth Unemployed (16-24 yrs)	186,040	89,157	96,883	26,063	27,994	63,094	68,889
Less than 1 month	35,359	14,345	21,014	4,136	3,088	10,209	17,926
1 – less than 3 months	40,489	19,955	20,535	2,946	4,458	17,009	16,076
3 – less than 6 months	33,576	17,933	15,644	5,735	4,606	12,197	11,038
6 – less than 12 months	22,481	12,127	10,354	4,198	4,275	7,929	6,079
1 – less than 2 years	27,823	14,680	13,143	5,320	5,265	9,360	7,878
2 years or more	26,311	10,117	16,194	3,726	6,302	6,391	9,892

Table 37: Young Unemployed by sex, duration of seeking employment, and urban/rural area, February 2017

	Rwanda			Urban		Rural	
	Total	Male	Female	Male	Female	Male	Female
Young Unemployed (16-30 yrs)	329,686	158,383	171,303	49,468	53,205	108,916	118,097
Less than 1 month	64,450	29,369	35,081	9,284	6,123	20,085	28,958
1 – less than 3 months	71,112	35,829	35,282	6,061	7,039	29,769	28,244
3 – less than 6 months	52,551	26,683	25,869	8,966	7,752	17,717	18,117
6 – less than 12 months	32,362	17,608	14,753	6,931	6,279	10,677	8,474
1 – less than 2 years	51,152	26,256	24,896	8,662	9,492	17,593	15,404
2 years or more	58,059	22,639	35,421	9,564	16,521	13,075	18,900

Table 38: Youth not in employment and not currently in education or training by sex, age group, and urban/rural area, February 2017

	Rwanda			Urban		Rural	
	Total	Male	Female	Male	Female	Male	Female
Young not in employment nor in education (16-30 yrs)	1,061,821	389,927	671,894	75,365	131,342	314,562	540,552
16-19 yrs	241,056	94,751	146,304	28,343	47,201	119,206	188,861
20-24 yrs	383,611	147,549	236,062	33,938	60,150	113,689	229,378
25-30 yrs	437,155	147,627	289,528	13,084	23,992	81,667	122,313
None	471,815	183,282	288,532	15,490	30,525	167,793	258,007
Primary	321,539	102,807	218,732	14,033	36,348	88,775	182,383
Lower secondary	84,640	25,002	59,637	8,078	15,504	16,925	44,133
Upper secondary	156,822	67,998	88,825	30,235	34,958	37,763	53,866
University	27,006	10,837	16,169	7,530	14,006	3,307	2,162

Table 39: Unemployed population by sex, broad age group and urban/rural area, February 2017

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Unemployed population 16+	606,997	316,417	290,580	183,261	423,736	365,023	241,974
16-24 yrs	193,879	93,162	100,718	55,127	138,753	109,374	84,505
25-34 yrs	224,763	108,010	116,753	71,271	153,491	127,857	96,906
35-54 yrs	154,013	93,613	60,401	47,259	106,754	101,309	52,704
55-64 yrs	29,643	18,157	11,486	8,485	21,158	23,352	6,290
65+ yrs	4,699	3,476	1,224	1,119	3,580	3,130	1,569

Table 40: Unemployed population by sex, level of educational, and urban/rural area, February 2017

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Unemployed population 16+	606,997	316,417	290,580	183,261	423,736	365,023	241,974
None	258,440	137,157	121,283	39,016	219,424	196,695	61,745
Primary	168,720	88,087	80,633	42,290	126,430	116,072	52,648
Lower secondary	48,081	25,103	22,977	23,523	24,558	20,446	27,635
Upper secondary	95,348	49,209	46,139	49,549	45,799	25,568	69,781
University	36,408	16,861	19,548	28,883	7,525	6,243	30,166

Table 41: Unemployed population(who looked for a job) by sex, method of seeking employment, and urban/rural area, February 2017

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Unemployed population who looked for a job	574,682	303,215	271,467	303,215	271,467	303,215	271,467
Arranging for financial resources, applying for permits, licences	73,819	31,950	41,869	31,950	41,869	31,950	41,869
Looking for land, premises, machinery, supplies, farming inputs	16,363	9,975	6,387	9,975	6,387	9,975	6,387
Seeking the assistance of friends, relatives or other types of intermediaries	149,655	83,327	66,328	83,327	66,328	83,327	66,328
Registering with or contacting public or private employment services	14,907	8,475	6,432	8,475	6,432	8,475	6,432

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Applying to employers directly,checking at worksites,farms,factory gates,markets	270,129	147,446	122,683	147,446	122,683	147,446	122,683
Placing or answering newspaper or online job advertisements	34,140	16,072	18,069	16,072	18,069	16,072	18,069
Placing and updating resumes on professional or social networking sites online	15,548	5,969	9,578	5,969	9,578	5,969	9,578
Other method	120	-	120	-	120	-	120

Note: Details may not add to totals because unemployed persons may be using more than one method of seeking employment during the reference period on jobsearch.

Table 42: Unemployed population (who looked for a job) by sex, duration of seeking employment, and urban/rural area, February 2017

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Unemployed population 16+	574,682	303,215	271,467	177,488	397,194	340,344	234,338
- Less than 1 month	120,702	61,010	59,692	26,321	94,381	84,240	36,463
- 1 month to less than 3 months	131,777	76,018	55,759	25,159	106,618	94,104	37,674
- 3 months to less than 6 months	85,876	50,099	35,777	26,070	59,806	49,721	36,155
- 6 months to less than 12 months	53,040	29,716	23,324	20,857	32,183	27,880	25,159
- One year to less than 2 years	74,838	39,837	35,000	27,638	47,200	35,037	39,801
- Two years or more	108,449	46,536	61,914	51,442	57,007	49,362	59,087

Table 43: Time related under employment by age group sex and area of residence

age group	Total	Male	Female	Urban	Rural
Total	903,787	431,751	472,036	108,836	794,950
16-24 yrs	198,063	89,431	108,632	18,436	179,627
25-34 yrs	318,854	160,778	158,076	44,055	274,798
35-54 yrs	331,732	153,387	178,345	42,927	288,805
55-64 yrs	48,114	23,720	24,394	2,662	45,452
65+ yrs	7,025	4,436	2,589	756	6,269

Table 44: Time-related underemployed persons by sex, main branch of economic activity and urban-rural areas.

ISIC High level	Total	Male	Female	Urban	Rural
Total	903,787	431,751	472,036	108,836	794,950
Agriculture, forestry and fishing	587,297	247,228	340,069	28,931	558,367
Manufacturing	9,515	8,598	917	1,180	8,335
Mining and quarrying	38,714	16,480	22,234	6,583	32,131
Electricity, gas, steam and air conditioning supply	971	971	-	543	428
Water supply, sewerage and waste management	2,207	1,921	286	197	2,009
Construction	56,287	44,217	12,069	13,269	43,018
Wholesale, retail trade, repair of motor vehicles, motorcycles	124,993	56,791	68,201	28,659	96,334
Transportation and storage	24,507	23,678	829	5,074	19,432
Accommodation and food service activities	6,562	3,079	3,484	2,549	4,013

ISIC High level	Total	Male	Female	Urban	Rural
Information and communication	1,339	733	606	484	855
Financial and insurance activities	1,279	271	1,008	418	861
Professional, scientific and technical activities	3,501	3,425	75	1,697	1,803
Administrative and support service activities	3,639	2,552	1,088	1,789	1,851
Public administration and defence	2,639	1,734	905	326	2,313
Education	10,749	5,126	5,623	3,364	7,384
Human health and social work activities	2,009	1,282	728	927	1,082
Arts, entertainment and recreation	1,720	1,150	570	1,329	391
Other service activities	10,698	4,214	6,483	4,949	5,748
Activities of households as employers	14,782	7,922	6,860	6,567	8,216
Activities of extraterritorial organizations and bodies	379	379	-	-	379

Table 45: Population outside the labour force by sex, degree of labour market attachment, and urban/rural area, February 2017

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Population outside the labour force (16+)	3,083,654	1,170,383	1,913,271	558,409	2,525,245	1,765,986	1,317,668
Seeking but not available	11,229	3,201	8,029	2,511	8,718	7,632	3,597
Not seeking but available	1,403,654	517,278	886,376	238,516	1,165,138	1,061,494	342,160
Neither seeking nor available but want employment	107,373	38,689	68,684	21,589	85,784	57,650	49,723
Neither seeking nor available who do not want employment	1,561,397	611,215	950,183	295,792	1,265,605	639,209	922,188

Table 46: Population outside the labor force by sex, main source of livelihood, and urban/rural area, February 2017

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Population outside the labour force (16+)	3,083,654	1,170,383	1,913,271	558,409	2,525,245	1,765,986	1,317,668
Parents	930,510	453,452	477,058	227,578	702,933	262,032	668,479
Husband/wife	297,737	53,880	243,857	87,206	210,531	144,504	153,233
Child	86,810	15,366	71,444	24,432	62,378	19,337	67,473
Other family members	227,850	91,873	135,977	82,040	145,809	50,393	177,456
Pension	10,223	5,853	4,370	5,151	5,073	4,482	5,742
Own production	1,348,021	477,215	870,806	62,755	1,285,266	1,236,031	111,990
Assistance received [VUP]	29,217	5,297	23,919	1,090	28,127	9,494	19,722
Assistance received [FARG]	5,275	1,266	4,009	3,255	2,020	1,559	3,716
Assistance received [Church, Other NGO]	3,935	1,592	2,344	1,226	2,709	0	3,935
Assistance from friends	37,642	8,933	28,708	10,267	27,375	8,240	29,401
Revenue from own property/savings	42,436	19,738	22,698	20,065	22,371	14,340	28,096
Past work	36,336	21,426	14,910	16,355	19,982	13,443	22,893
Scholarship	26,208	14,091	12,117	16,363	9,845	1,156	25,051
Other	1,453	398	1,055	626	827	973	480

Table 47: Working age population, by reported status of non-employment

	Rwanda			Urban		Rural	
	Total	Male	Female	Male	Female	Male	Female
Total	3690651	1486799	2203852	316485	425184	1170314	1778667
Unemployed	1326201	572888	753313	137864	200962	435024	552351
Performing a job such as unpaid work in a family business or apprenticeship or	70963	19873	51090	3618	4060	16254	47029
Pupil, student, post graduate	747532	392353	355180	127833	113578	264520	241602
Retirement or early retirement or given up business activity	308964	109909	199055	17881	29951	92028	169104
Permanently unable to work due to longstanding health problems	252464	100764	151699	10802	20457	89963	131242
In compulsory military or civilian service	10937	5772	5164	2464	1184	3309	3981
Person fulfilling domestic task in own household	950316	274454	675862	10436	49744	264018	626118
Finish school,waiting for results	13726	7524	6202	4435	3339	3089	2862
other status,Specify	9549	3261	6288	1152	1908	2109	4380

Table 48: Average time spent in own-use production work by sex, type of own-use production and urban/rural area, February 2017

	Rwanda			Total	Urban		Total	Rural	
	Total	Male	Female		Male	Female		Male	Female
Total own-use production	5,361,035	2,203,607	3,157,428	981,348	392,272	589,077	4,379,686	1,811,335	2,568,351
Collecting firewood for the household including travel time	4.6	4.4	4.7	4.2	4.2	4.2	4.6	4.4	4.8
Fetching water for the household, including travel time	4	3.8	4.1	3.5	3.2	3.8	4	3.9	4.1
Searching for fodder or grazing for the household's animals	7.5	8.8	6.3	6.2	7.1	5.2	7.5	8.9	6.3
Manufacturing household goods for own or family use	5.5	6.7	5.4	5.4	12.3	4.3	5.5	6.3	5.5

	Rwanda			Total	Urban		Total	Rural	
	Total	Male	Female		Male	Female		Male	Female
Constructing your dwelling, making major repairs on it, farm buildings, private roads, or wells	4.8	5.7	3.5	3.8	4.7	3	4.9	5.8	3.5
Doing household chores including shopping, preparing meals	9.2	5.2	10.7	9.1	5.5	10.7	9.3	5.2	10.7
Looking after children and elderly	7.3	3.9	8.5	9.3	4.8	11	6.9	3.6	7.9
Total number of persons(16+)	6,709,183	3,137,871	3,571,312	1,573,206	781,335	791,871	5,135,977	2,356,536	2,779,441
Collecting firewood for the household including travel time	1.8	1.4	2.3	0.5	0.4	0.7	2.2	1.7	2.7
Fetching water for the household, including travel time	1.8	1.4	2	0.8	0.6	1	2.1	1.7	2.3
Searching for fodder or grazing for the household's animals	2.8	3.3	2.3	0.5	0.6	0.4	3.5	4.2	2.8
Manufacturing household goods for own or family use	0.1	0	0.2	0	0	0	0.2	0	0.3
Constructing your dwelling, making major repairs on it, farm buildings, private roads, or wells	0.3	0.5	0.2	0.1	0.1	0.1	0.4	0.6	0.2
Doing household chores including shopping, preparing meals	5.6	1.8	8.9	4.6	1.7	7.4	5.9	1.9	9.3
Looking after children and elderly	2.8	0.8	4.6	2.9	0.8	4.9	2.8	0.8	4.5

Table 49: Average time spent per week on own-use production of goods of working age population by sex, age group, employment status, and urban/rural area, February 2017

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total (16+ years)	8.8	3.1	13.7	7.6	2.7	12.4	9.1	3.3	14.1
16-24 yrs	6.3	2.4	9.9	5	2.2	7.6	6.7	2.5	10.7
25-34 yrs	11.7	3.8	19	10.1	3	17.6	12.2	4.1	19.5
35-54 yrs	9.7	3.5	15	8.6	2.9	14.7	10	3.7	15.1
55-64 yrs	7.2	2.9	10.8	7	3.3	11	7.3	2.8	10.8
65-74 yrs	5.9	2.5	8.1	3.6	0.8	5.4	6.2	2.7	8.5
Employed	8	3.2	13.7	6.1	2.5	10.6	8.7	3.5	14.9
Unemployed	9.7	3.9	16	10.1	3.9	16.8	9.5	3.9	15.6
Outside labour force	9.3	2.8	13.3	9	2.4	13.3	9.4	2.9	13.3

Table 50: Average time spent per week on own-use provision of services of working age population by sex, age group and urban/rural area, February 2017

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total (16+ years)	12.9	6.1	16.0	13.2	6.4	16.8	12.9	6.0	15.8
16-24 yrs	10.7	5.6	13.1	10.5	5.8	13.3	10.7	5.5	13.1
25-34 yrs	15.8	6.3	20.8	16.1	6.4	21.8	15.8	6.3	20.6
35-54 yrs	13.2	6.2	16.1	13.1	6.4	16.4	13.2	6.2	16.0
55-64 yrs	10.8	6.1	12.3	11.6	8.6	12.9	10.7	5.6	12.2
65-74 yrs	10.0	6.6	10.9	8.8	7.1	9.0	10.2	6.6	11.1
Employed	12.2	6.2	15.9	11.9	6.3	16.1	12.2	6.1	15.9
Unemployed	12.9	6.2	17.0	13.9	7.0	18.2	12.5	5.8	16.5
Outside labour force	13.6	5.9	15.9	14.4	6.1	17.1	13.5	5.9	15.6

Table 51: Children 5-17 years old by sex, school attendance, current work status and urban/rural area, February 2017

	Total			Male		Female	
	Total	Schooling	Not schooling	Schooling	Not schooling	Schooling	Not schooling
Total children 5-17 years old	3,798,346	3,260,601	537,744	573,797	76,896	268,680	460,848
Not working	3,446,996	3,122,077	324,919	563,788	40,425	2,558,289	284,494
Work with pay	132,050	20,577	111,473	889	30,176	19,688	81,298
Work without pay	219,300	117,948	101,352	9,120	6,296	108,828	95,056
Total children in urban areas	1,866,600	1,602,177	264,423	291,585	27,359	282,212	49,537
Not working	1,709,932	1,533,502	176,431	287,765	15,788	276,023	24,637
Work with pay	60,744	10,901	49,843	200	9,840	688	20,335
Work without pay	95,924	57,775	38,149	3,620	1,731	5,500	4,565
Total children in rural areas	1,931,745	1,658,424	273,321	1,310,592	237,064	1,376,213	223,784
Not working	1,737,063	1,588,575	148,488	1,245,737	160,643	1,312,552	123,851
Work with pay	71,306	9,676	61,631	10,701	40,003	8,987	41,295
Work without pay	123,376	60,173	63,203	54,155	36,418	54,673	58,638

Table 52: Migrants by sex, age group, urban/rural area and place of residence prior to migration, RLFS February 2017

Place of usual residence prior to migration	Total	Male	Female	Urban	Rural	0-15 yrs	16+ yrs
Rwanda	1,242,424	606,505	635,919	612,653	629,771	323,142	919,282
Nyarugenge	103,566	52,650	50,916	80,571	22,995	16,219	87,347
Gasabo	190,883	96,001	94,882	157,225	33,658	30,387	160,496
Kicukiro	156,358	76,504	79,854	144,109	12,248	25,189	131,168
Nyanza	29,202	12,895	16,307	6,618	22,584	8,048	21,154
Gisagara	9,669	4,575	5,094	0	9,669	4,042	5,626
Nyaruguru	9,666	4,702	4,965	1,298	8,368	2,281	7,386
Huye	42,973	21,779	21,193	34,380	8,593	11,066	31,906
Nyamagabe	8,661	3,207	5,454	3,622	5,039	883	7,778
Ruhango	32,993	17,036	15,957	6,665	26,328	10,117	22,876
Muhanga	24,085	8,564	15,520	12,017	12,068	6,623	17,461
Kamonyi	60,851	33,930	26,921	36,586	24,265	17,916	42,935
Karongi	19,772	9,604	10,167	2,691	17,081	7,019	12,752
Rutsiro	5,808	1,957	3,852	0	5,808	1,397	4,411
Rubavu	23,900	11,478	12,423	13,536	10,364	7,188	16,713
Nyabihu	13,798	5,133	8,664	3,787	10,011	4,504	9,294
Ngororero	3,108	1,089	2,020	0	3,108	2,062	1,047
Rusizi	19,964	9,601	10,363	4,266	15,698	4,596	15,368
Nyamasheke	25,008	12,344	12,664	0	25,008	8,900	16,109
Rulindo	21,446	10,328	11,118	0	21,446	7,165	14,281
Gakenke	13,197	7,144	6,053	0	13,197	2,085	11,112
Musanze	26,553	9,380	17,173	14,173	12,380	10,266	16,287
Burera	7,484	2,942	4,541	0	7,484	2,027	5,457

Place of usual residence prior to migration	Total	Male	Female	Urban	Rural	0-15 yrs	16+ yrs
Gicumbi	17,990	12,667	5,323	7,890	10,101	3,273	14,717
Rwamagana	69,033	27,397	41,636	14,735	54,298	23,150	45,883
Nyagatare	112,493	62,134	50,359	32,299	80,194	34,817	77,676
Gatsibo	39,725	17,229	22,495	4,021	35,704	14,832	24,893
Kayonza	46,459	21,594	24,866	8,869	37,590	19,362	27,097
Kirehe	27,387	14,257	13,130	0	27,387	8,768	18,619
Ngoma	19,554	7,893	11,661	0	19,554	7,863	11,690
Bugesera	60,838	30,491	30,347	23,295	37,543	21,095	39,743
Outside Rwanda	99,751	50,108	49,644	59,191	40,560	34,939	64,812
- Burundi	19,816	9,372	10,444	14,963	4,853	4,478	15,339
- Congo-Kinshasa DRC	34,359	17,274	17,085	26,338	8,020	15,332	19,027
- Kenya	2,316	760	1,556	2,316	0	968	1,348
- Tanzania	10,308	5,713	4,595	961	9,347	3,128	7,180
- Uganda	27,330	13,846	13,485	9,181	18,150	10,221	17,109
- Rest of Africa	2,183	1,277	906	1,993	190	0	2,183
- Other country	3,439	1,866	1,573	3,439	0	813	2,626

Table 53: Internal and international migrants by labour force status, sex, urban/rural area, RLFS February 2017

	Total	Employed	Unemployed	Outside labour force	LFPR	Emp-Pop	UR
Total migrants (16+ yrs)	984,094	602,291	87,827	293,976	70.1	61.2	12.7
Male	474,780	334,696	40,267	99,817	79.0	70.5	10.7
Female	509,314	267,595	47,560	194,158	61.9	52.5	15.1
Urban	546,512	355,224	52,942	138,346	74.7	65.0	13.0
Rural	437,582	247,067	34,885	155,630	64.4	56.5	12.4
Internal migrants (16+ yrs)	919,282	570,138	80,883	268,260	70.8	62.0	12.4
Male	441,154	314,103	37,462	89,589	79.7	71.2	10.7
Female	478,127	256,035	43,421	178,671	62.6	53.5	14.5
Urban	505,774	335,286	48,431	122,057	75.9	66.3	12.6
Rural	413,507	234,852	32,451	146,204	64.6	56.8	12.1
International migrants (16+ yrs)	64,812	32,152	6,944	25,715	60.3	49.6	17.8
Male	33,626	20,592	2,805	10,228	69.6	61.2	12.0
Female	31,186	11,560	4,139	15,487	50.3	37.1	26.4
Urban	40,737	19,937	4,511	16,289	60.0	48.9	18.5
Rural	24,075	12,215	2,434	9,426	60.8	50.7	16.6

Table 54: Internal and international migrants by labour force status and main reason for migration, RLFS February 2017

Main reason for migration	Total	Employed	Unemployed	Outside labour force	LFPR	Emp-Pop	UR
Total migrants (16+ yrs)	984,094	602,291	87,827	293,976	70.1	61.2	12.7
Parents moved	81,143	23,497	8,548	49,098	39.5	29.0	26.7
To live with relatives	101,826	30,065	11,243	60,518	40.6	29.5	27.2
To attend school	61,478	13,067	8,369	40,043	34.9	21.3	39.0
Marriage	88,790	38,519	12,395	37,875	57.3	43.4	24.3
Family quarrel	8,914	5,949	179	2,786	68.8	66.7	2.9
Divorce	12,546	8,198	2,810	1,538	87.7	65.3	25.5
New job	101,381	98,106	1,864	1,411	98.6	96.8	1.9
Job transfer	18,716	18,142	573	-	100.0	96.9	3.1
To look for work	245,559	209,903	16,155	19,501	92.1	85.5	7.1
Looking for land to farm	64,399	36,628	2,716	25,055	61.1	56.9	6.9
Loss of employment	20,739	12,750	3,797	4,192	79.8	61.5	22.9
Employment of spouse	23,277	11,625	3,082	8,569	63.2	49.9	21.0
Coming back in country	137,750	88,207	13,858	35,685	74.1	64.0	13.6
Other	17,574	7,635	2,236	7,704	56.2	43.4	22.7
Internal migrants (16+ yrs)	919,282	570,138	80,883	268,260	70.8	62.0	12.4
Parents moved	75,393	22,796	8,177	44,420	41.1	30.2	26.4
To live with relatives	93,646	27,339	10,250	56,058	40.1	29.2	27.3
To attend school	59,587	13,067	7,738	38,782	34.9	21.9	37.2
Marriage	87,716	38,268	11,573	37,875	56.8	43.6	23.2

Main reason for migration	Total	Employed	Unemployed	Outside labour force	LFPR	Emp-Pop	UR
Family quarrel	8,577	5,726	179	2,672	68.8	66.8	3.0
Divorce	10,802	7,476	2,212	1,114	89.7	69.2	22.8
New job	97,314	94,274	1,629	1,411	98.6	96.9	1.7
Job transfer	17,932	17,506	426	-	100.0	97.6	2.4
To look for work	238,831	203,748	15,708	19,375	91.9	85.3	7.2
Looking for land to farm	63,863	36,091	2,716	25,055	60.8	56.5	7.0
Loss of employment	19,001	11,547	3,797	3,657	80.8	60.8	24.7
Employment of spouse	22,896	11,625	3,082	8,189	64.2	50.8	21.0
Coming back in country	115,882	77,225	12,488	26,169	77.4	66.6	13.9
Other	7,840	3,449	908	3,484	55.6	44.0	20.8
International migrants (16+ yrs)	64,812	32,152	6,944	25,715	60.3	49.6	17.8
Parents moved	5,750	701	371	4,678	19	12	35
To live with relatives	8,180	2,726	993	4,461	45	33	27
To attend school	1,891	0	631	1,260	33	0	100
Marriage	1,073	251	822	0	100	23	77
Family quarrel	337	224	0	113	66	66	0
Divorce	1,744	721	599	424	76	41	45
New job	4,067	3,832	235	0	100	94	6
Job transfer	783	636	147	0	100	81	19
To look for work	6,729	6,155	447	127	98	91	7
Looking for land to farm	536	536	0	0	100	100	0
Loss of employment	1,738	1,203	0	536	69	69	0
Employment of spouse	380	0	0	380	0	0	0
Coming back in country	21,868	10,982	1,370	9,517	56	50	11
Other	9,734	4,185	1,329	4,220	57	43	24

Table 55: Migrant workers by sex, urban/rural area, prior place of residence and branch of economic activity, RLFS February 2017

	Total	Sex		Residential area		Internal migrants	External migrants
		Male	Female	Urban	Rural		
Total migrant workers (employed migrants)	602,291	334,696	267,595	355,224	247,067	570,138	32,152
Agriculture, forestry and fishing	130,823	62,793	68,029	15,819	115,004	122,064	8,759
Manufacturing	4,569	4,138	431	772	3,797	4,445	124
Mining and quarrying	25,419	13,370	12,049	14,259	11,160	24,512	906
Electricity, gas stream and air condition	3,574	3,441	133	2,487	1,087	3,353	221
Water supply, gas and remediation services	1,519	1,032	487	980	539	1,519	-
Construction	54,456	46,345	8,111	28,597	25,859	52,306	2,150
Wholesale and retail trade, repair of motor vehicles ...	91,921	45,855	46,066	61,917	30,004	85,599	6,322
Transportation and storage	26,602	25,445	1,156	19,499	7,103	23,632	2,970
Accommodation and food services	12,325	6,370	5,955	10,557	1,768	11,294	1,030
Information and communication	4,080	2,282	1,798	2,386	1,694	4,080	-
Financial and insurance activities	9,475	5,029	4,447	8,021	1,454	8,771	704
Real estate activities	902	902	-	902	-	902	-
Professional, scientific and technical activities	7,317	4,640	2,677	7,181	136	6,935	382
Administrative and support activities	17,320	13,328	3,992	9,834	7,486	16,335	985
Public administration and defence, compulsory ...	14,608	12,017	2,591	11,594	3,013	13,867	741
Education	24,677	15,395	9,282	13,764	10,913	24,003	675
Human health and social work activities	17,960	11,988	5,972	14,831	3,129	16,055	1,905
Arts, entertainment and recreation	923	513	410	809	114	840	83
Other services	10,735	6,091	4,643	6,320	4,415	9,770	965
Activities of households as employers	141,029	52,762	88,268	122,985	18,044	138,526	2,504
Activities of extraterritorial organizations	2,058	960	1,098	1,711	347	1,331	726

Table 56: Summary labour force indicators, RLFS February 2017(City of Kigali)

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Population 16 years old and over	1103017	553829	549188	823990	279027	172852	930165
Labour force	723,658	406,301	317,356	561,754	161,904	88,475	635,182
Employed	588071	340902	247168	453957	134114	67781	520289
Unemployed	135587	65399	70188	107797	27790	20694	114893
Outside labour force	379359	147528	231832	262236	117123	84376	294984
Labour underutilization	408581	179059	229521	270550	138030	106004	302577
Unemployed	135587	65399	70188	107797	27790	20694	114893
Time-related underemployed	97468	53693	43775	50280	47188	29924	67544
Potential labour force	175525	59967	115558	112473	63053	55385	120141
Labour force participation rate	65.6	73.4	57.8	68.2	58.0	51.2	68.3
Employment-to-population ratio	53.3	61.6	45.0	55.1	48.1	39.2	55.9
LU1 - Unemployment rate	18.7	16.1	22.1	19.2	17.2	23.4	18.1
LU2 - Combined rate of unemployment and time-related underemployment	32.2	29.3	35.9	28.1	46.3	57.2	28.7
LU3 - Combined rate of unemployment and potential labour force	34.6	26.9	42.9	32.7	40.4	52.9	31.1
LU4 - Composite measure of labour underutilization	45.4	38.4	53.0	40.1	61.4	73.7	40.1
Youth unemployment rate (16-24 yrs)	22.3	20.4	24	21.7	24.8	34.4	21.1
Unemployment rate of young people (16-30 yrs)	22.2	19	25.8	22.3	21.9	30.4	21.4
Median monthly cash earnings of employees at main job	45,000	65,000	26,000	52,000	26,000	26,000	52,000

Table 57: Summary labour force indicators, RLFS February 2017(South province)

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Population 16 years old and over	1,637,762	762,706	875,055	272,052	1,365,709	996,652	641,109
Labour force	826,946	452,374	374,572	164,904	662,042	480,544	346,401
Employed	709282	394738	314544	143919	565363	390418	318863
Unemployed	117664	57636	60028	20985	96679	90126	27538
Outside labour force	810816	310332	500484	107149	703667	516107	294709
Labour underutilization	696390	312098	384292	82983	613407	565711	130679
Unemployed	117664	57636	60028	20985	96679	90126	27538
Time-related underemployed	186977	100896	86081	17491	169486	139167	47809
Potential labour force	391749	153566	238183	44507	347242	336417	55332
Labour force participation rate	50.5	59.3	42.8	60.6	48.5	48.2	54.0
Employment-to-population ratio	43.3	51.8	35.9	52.9	41.4	39.2	49.7
LU1 - Unemployment rate	14.2	12.7	16.0	12.7	14.6	18.8	7.9
LU2 - Combined rate of unemployment and time-related underemployment	36.8	35.0	39.0	23.3	40.2	47.7	21.8
LU3 - Combined rate of unemployment and potential labour force	41.8	34.9	48.7	31.3	44.0	52.2	20.6
LU4 - Composite measure of labour underutilization	57.1	51.5	62.7	39.6	60.8	69.2	32.5
Youth unemployment rate (16-24 yrs)	16.9	12.6	21.4	14.3	17.7	25.1	9.7
Unemployment rate of young people (16-30 yrs)	16.5	12.3	21	15.1	16.9	22.8	10.2
Median monthly cash earnings of employees at main job	18,200	20,800	18,200	30,000	18,200	18,200	21,667

Table 58: Summary labour force indicators, RLFS February 2017(West province)

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Population 16 years old and over	134776	611293	736423	210486	113729	755394	592321
Labour force	718,787	372,611	346,176	124,981	593,806	417,163	301,623
Employed	557687	287621	270066	100432	457255	304227	253460
Unemployed	161100	84990	76110	24549	136551	112936	48163
Outside labour force	628929	238682	390247	85505	543424	338231	290698
Labour underutilization	639563	274216	365347	79818	559745	453716	185847
Unemployed	161100	84990	76110	24549	136551	112936	48163
Time-related underemployed	212266	96155	116111	21189	191077	145019	67247
Potential labour force	266197	93071	173126	34081	232117	195760	70437
Labour force participation rate	53.3	61.0	47.0	59.4	52.2	55.2	50.9
Employment-to-population ratio	41.4	47.1	36.7	47.7	40.2	40.3	42.8
LU1 - Unemployment rate	22.4	22.8	22.0	19.6	23.0	27.1	16.0
LU2 - Combined rate of unemployment and time-related underemployment	51.9	48.6	55.5	36.6	55.2	61.8	38.3
LU3 - Combined rate of unemployment and potential labour force	43.4	38.2	48.0	36.9	44.6	50.4	31.9
LU4 - Composite measure of labour underutilization	64.9	58.9	70.4	50.2	67.8	74.0	50.0
Youth unemployment rate (16-24 yrs)	30.5	28.6	32.5	25.5	31.4	38.3	21.3
Unemployment rate of young people (16-30 yrs)	28.3	27.4	29.2	23.7	29.3	33.4	22.5
Median monthly cash earnings of employees at main job	20,800	26,000	18,200	26,000	20,000	18,200	26,000

Table 59: Summary labour force indicators, RLFS February 2017(North province)

	Sx		Residential area		Participated in	Not participated	
	Total	Male	Female	Urban	Rural	subsistence	in subsistence
						agriculture	agriculture
Population 16 years old and over	1100230	501520	598711	101013	999217	735857	364373
Labour force	523,524	282,721	240,803	56,907	466,617	340,748	182,776
Employed	420435	225662	194773	43935	376500	262709	157726
Unemployed	103089	57059	46030	12972	90117	78039	25050
Outside labour force	576706	218798	357908	44106	532600	395109	181597
Labour underutilization	383,281	165,231	218,050	22,565	360,717	320,347	62,934
Unemployed	75,460	39,916	35,544	5,876	69,584	59,801	15,660
Time-related underemployed	115,283	49,811	65,473	7,698	107,586	93,123	22,161
Potential labour force	192,537	75,504	117,033	8,991	183,547	167,423	25,114
Labour force participation rate	47.6	56.4	40.2	56.3	46.7	46.3	50.2
Employment-to-population ratio	38.2	45	32.5	43.5	37.7	35.7	43.3
LU1 - Unemployment rate	19.7	20.2	19.1	22.8	19.3	22.9	13.7
LU2 - Combined rate of unemployment and time-related underemployment	41.7	37.8	46.3	36.3	42.4	50.2	25.8
LU3 - Combined rate of unemployment and potential labour force	41.3	37	45.6	33.3	42.1	48.3	24.1
LU4 - Composite measure of labour underutilization	57.4	50.9	63.9	45	58.6	66.6	34.8
Youth unemployment rate (16-24 yrs)	32.5	36.3	28.8	37	31.9	35.8	27.4
Unemployment rate of young people (16-30 yrs)	27.8	28.4	27.1	26.2	28	32.5	20.9
Median monthly cash earnings of employees at main job	20,800	26,000	18,200	26,000	20,800	18,200	26,000

Table 60: Summary labour force indicators, RLFS February 2017(East province)

	Total	Sx		Residential area		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Population 16 years old and over	2,784,512	1,305,135	1,479,378	630,561	2,153,951	1,531,974	1,252,538
Labour force	832,615	453,481	379,134	106,252	726,363	485,312	347,304
Employed	743058	402148	340910	89294	653764	422085	320973
Unemployed	89557	51333	38224	16958	72599	63227	26331
Outside labour force	687843	255042	432801	59412	628431	432162	255681
Labour underutilization	670468	280026	390442	55847	614621	515274	155194
Unemployed	89557	51333	38224	16958	72599	63227	26331
Time-related underemployed	258808	114999	143809	9901	248908	190190	68619
Potential labour force	322102	113693	208409	28988	293114	261857	60245
Labour force participation rate	29.9	34.7	25.6	16.9	33.7	31.7	27.7
Employment-to-population ratio	26.7	30.8	23	14.2	30.4	27.6	25.6
LU1 - Unemployment rate	10.8	11.3	10.1	16	10	13	7.6
LU2 - Combined rate of unemployment and time-related underemployment	41.8	36.7	48	25.3	44.3	52.2	27.3
LU3 - Combined rate of unemployment and potential labour force	35.7	29.1	42	34	35.9	43.5	21.2
LU4 - Composite measure of labour underutilization	58.1	49.4	66.5	41.3	60.3	69	38.1
Youth unemployment rate (16-24 yrs)	15.3	15.2	15.5	22.7	14.2	19.3	11.5
Unemployment rate of young people (16-30 yrs)	13.4	12.8	14.1	17.2	12.8	17.6	9
Median monthly cash earnings of employees at main job	20,800	26,000	18,200	39,000	18,200	18,200	26,000

Table 61: Employment by sex, urban/rural area and branch of economic activity, RLFS February 2017(City of Kigali)

	Total	Male	Female	Urban	Rural
Employed population 16 years old and over	588071	340902	247168	453957	134114
Agriculture, forestry and fishing	71341	31018	40323	19944	51397
Manufacturing	3048	2909	139	1165	1883
Mining and quarrying	37008	22367	14640	27198	9810
Electricity, gas stream and air condition	4132	3612	520	3322	810
Water supply, gas and remediation services	2991	1754	1237	2035	957
Construction	55485	48715	6771	39543	15943
Wholesale and retail trade, repair of motor vehicles ...	123092	63452	59640	98106	24985
Transportation and storage	40752	38830	1922	31102	9650
Accommodation and food services	19065	10007	9057	18470	595
Information and communication	5489	3822	1667	4867	622
Financial and insurance activities	11358	6755	4603	11194	164
Real estate activities	1642	1180	461	1642	0
Professional, scientific and technical activities	15465	10903	4562	15099	366
Administrative and support activities	20026	13973	6054	18646	1380
Public administration and defense, compulsory ...	19833	14962	4871	17915	1919
Education	18757	10498	8259	16653	2104
Human health and social work activities	13303	5678	7625	12022	1281
Arts, entertainment and recreation	2715	1964	751	2342	373
Other services	15805	8367	7438	13221	2584
Activities of households as employers	102550	37430	65120	95606	6944
Activities of extraterritorial organizations	4214	2705	1509	3867	347

Table 62: Employment by sex, urban/rural area and branch of economic activity, RLFS February 2017(South province)

	Total	Male	Female	Urban	Rural
Employed population 16 years old and over	709282	394738	314544	143919	565363
Agriculture forestry and fishing	352763	174290	178473	18767	333996
Mining and quarrying	11966	10956	1010	0	11966
Manufacturing	32680	16356	16324	6208	26472
Electricity gas steam and air conditioning supply	1745	1745	0	0	1745
Water supply, gas and remediation services	1834	1175	659	516	1318
Construction	52014	41109	10906	9708	42307
Whole sale and retail trade; repair of motor vehicles and motorcycles	80414	41488	38926	26207	54207
Transportation and storage	28162	27363	799	10020	18142
Accommodation and food services activities	7072	3599	3473	5802	1269
financial and insurance activities	5526	2378	3148	3188	2339
Real estate activities	571	571	0	571	0
Professional, scientific and technical activities	433	433	0	0	433
Administrative and support activities	5449	3513	1935	993	4455
Public administration and defense; compulsory social security	10499	7439	3060	3875	6624
Education	28421	13214	15207	6934	21488
Human health and social work activities	18492	11166	7326	14281	4212
Arts, entertainment and recreation	1833	944	890	1301	532
Other services	8482	5104	3378	1218	7263
Activities of households as employers	60323	31644	28680	34330	25993
Activities of extraterritorial organizations and bodies	601	252	349	0	601

Table 63: Employment by sex, urban/rural area and branch of economic activity, RLFS February 2017(West province)

	Total	Male	Female	Urban	Rural
Employed population 16 years old and over	557687	287621	270066	100432	457255
Agriculture forestry and fishing	291251	125128	166123	24271	266979
Mining and quarrying	10817	10033	784	1206	9611
Manufacturing	18260	12073	6188	3816	14445
Electricity gas steam and air conditioning supply	1474	1474	0	0	1474
Water supply, gas and remediation services	1459	1185	274	0	1459
Construction	44541	30984	13557	7344	37197
Whole sale and retail trade; repair of motor vehicles and motorcycles	83579	37666	45912	24517	59061
Transportation and storage	26676	21480	5197	11320	15356
Accommodation and food services activities	6198	3356	2842	1720	4478
Information and communication	1632	444	1188	444	1188
Financial and insurance activities	3082	1919	1163	1919	1163
Professional, scientific and technical activities	2361	1768	594	1937	424
Administrative and support activities	7304	5349	1955	2798	4505
Public administration and defense; compulsory social security	8796	6299	2497	2345	6451
Education	19129	12102	7027	4106	15023
Human health and social work activities	5948	1607	4341	1828	4121
Arts, entertainment and recreation	1448	823	624	433	1015
Other services	6611	4696	1915	1551	5060
Activities of households as employers	16664	9236	7428	8421	8243
Activities of extraterritorial organizations and bodies	456	0	456	456	0

Table 64: Employment by sex, urban/rural area and branch of economic activity, RLFS February 2017(North province)

	Total	Male	Female	Urban	Rural
Employed population 16 years old and over	420435	225662	194773	43935	376500
Agriculture forestry and fishing	232910	99815	133094	13856	219053
Mining and quarrying	9085	7573	1512	0	9085
Manufacturing	17141	9453	7688	3614	13527
Electricity gas steam and air conditioning supply	1282	1282	0	455	827
Construction	33778	26784	6994	5005	28773
Whole sale and retail trade; repair of motor vehicles and motorcycles	55340	29640	25700	7296	48044
Transportation and storage	17510	17510	0	6224	11286
Accommodation and food services activities	2138	930	1208	498	1640
Information and communication	560	560	0	0	560
Financial and insurance activities	2116	362	1755	0	2116
Real estate activities	374	374	0	0	374
Professional, scientific and technical activities	1569	1569	0	0	1569
Administrative and support activities	5533	5533	0	868	4664
Public administration and defense; compulsory social security	5781	3637	2145	1062	4719
Education	17978	11818	6160	3381	14597
Human health and social work activities	4081	2750	1331	0	4081
Arts, entertainment and recreation	431	0	431	0	431
Other services	4508	2289	2219	570	3939
Activities of households as employers	8319	3783	4536	1105	7215

Table 65: Employment by sex, urban/rural area and branch of economic activity, RLFS February 2017(East province)

	Total	Male	Female	Urban	Rural
Employed population 16 years old and over	743058	402148	340910	89294	653764
Agriculture forestry and fishing	437157	196232	240925	10160	426997
Mining and quarrying	5819	5436	383	0	5819
Manufacturing	32112	18808	13304	6999	25113
Electricity gas steam and air conditioning supply	803	803	0	803	0
Water supply, gas and remediation services	1646	823	823	0	1646
Construction	53652	47316	6336	8014	45639
Whole sale and retail trade; repair of motor vehicles and motorcycles	108753	61615	47138	27501	81252
Transportation and storage	17977	17977	0	3637	14340
Accommodation and food services activities	5128	3146	1982	491	4637
Information and communication	499	0	499	0	499
Financial and insurance activities	1481	990	491	982	499
Real estate activities	861	0	861	0	861
Professional, scientific and technical activities	840	840	0	0	840
Administrative and support activities	6832	5074	1758	1294	5537
Public administration and defense; compulsory social security	8181	6700	1481	4423	3758
Education	21801	14673	7128	5516	16285
Human health and social work activities	4426	2186	2240	982	3444
Other services	8869	6185	2683	3412	5457
Activities of households as employers	25840	12963	12876	15078	10762
Activities of extraterritorial organizations and bodies	379	379	0	0	379

Table 66: Labour market indicators and educational type (general and Technical)

Attainment status of vocation and general trainings	LFPR	Empl/pop ratio	Unemployment rate	Labour underutilisation rate	Working age population
Rwanda	54.0	45.0	16.7	58.0	6,709,183
No level completed	52.8	45.1	14.5	60.7	3,264,179
Completed general	51.8	42.1	18.6	56.4	2,868,817
Completed TVET	72.5	58.3	19.5	52.5	576,187
Urban	64.5	52.9	18.1	42.5	1,573,206
No level completed	66.5	57.2	14	43	381,853
Completed general	60.3	48.8	19.1	42	960,505
Completed TVET	78.5	62.4	20.6	43.3	230,848
Rural	50.8	42.6	16.2	63.2	5,135,977
No level completed	51	43.5	14.6	63.3	2,882,326
Completed general	47.5	38.8	18.3	64	1,908,311
Completed TVET	68.4	55.6	18.7	58.8	345,339
Male	62.7	52.6	16.1	51	3,137,871
No level completed	61.9	52.9	14.6	54.9	1,437,080
Completed general	59	49.1	16.7	48.6	1,380,428
Completed TVET	82.2	66.5	19.1	44.5	320,363
Female	46.4	38.3	17.5	64.9	3,571,312
No level completed	45.6	39	14.3	65.9	1,827,099
Completed general	45.1	35.7	20.8	64	1,488,389
Completed TVET	60.3	48.1	20.2	63.6	255,824

Table 67: Labour market indicators by attained level of education by those who completed TVET

Attainment status of vocation and general trainings	LFP R	Empl/pop ratio	Unemployment rate	Labour underutilisation rate	Working age population
Rwanda	72.5	58.3	19.5	52.5	576,187
None	69.6	61.4	11.8	53.4	112,183
Primary	70.3	59.1	15.9	53.1	260,838
Lower secondary	69.2	49.3	28.8	58.5	90,258
Upper secondary	80.6	57.4	28.8	50.5	90,506
University	92.5	73.1	20.9	28.2	22,403
Urban	78.5	62.4	20.6	43.3	230,848
None	88.2	75.3	14.6	35	27,611
Primary	72.5	61.6	15.1	43.5	82,531
Lower secondary	79	58.8	25.6	45.2	39,737
Upper secondary	78.4	57.4	26.8	49.2	62,990
University	90.7	71	21.6	30.7	17,979
Rural	68.4	55.6	18.7	58.8	345,339
None	63.5	56.9	10.5	59.8	84,572
Primary	69.2	57.9	16.3	57.4	178,307
Lower secondary	61.5	41.9	32	69.3	50,521
Upper secondary	85.7	57.5	32.9	53.4	27,515
University	100	81.7	18.3	18.3	4,424
Male	82.2	66.5	19.1	44.5	320,363
None	80.4	68.9	14.3	44.8	64,189
Primary	80.9	68.6	15.2	45.2	133,182
Lower secondary	80	57.2	28.5	50.9	45,635
Upper secondary	85.8	62.9	26.7	43.7	60,640

Attainment status of vocation and general trainings	LFP R	Empl/pop ratio	Unemployment rate	Labour underutilisation rate	Working age population
University	92.8	79.2	14.7	23.3	16,716
Female	60.3	48.1	20.2	63.6	255,824
None	55.1	51.4	6.8	66.1	47,993
Primary	59.2	49.3	16.8	62.1	127,655
Lower secondary	58.2	41.2	29.2	67.3	44,623
Upper secondary	70.1	46.4	33.9	64.4	29,865
University	91.7	55.4	39.6	43.6	5,688

Annex D: Questionnaire

NATIONAL INSTITUTE OF STATISTICS OF RWANDA

QUESTIONNAIRE

RWANDA LABOUR FORCE SURVEY (RLFS)

IDENTIFICATION OF THE HOUSEHOLD																				
PROVINCE _____	DISTRICT _____	SECTOR _____	CELL _____	VILLAGE _____																
NAME OF THE HEAD OF HOUSEHOLD _____			<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="width: 25px; height: 25px;"></td><td style="width: 25px; height: 25px;"></td><td style="width: 25px; height: 25px;"></td><td style="width: 25px; height: 25px;"></td></tr> <tr><td style="width: 25px; height: 25px;"></td><td style="width: 25px; height: 25px;"></td><td style="width: 25px; height: 25px;"></td><td style="width: 25px; height: 25px;"></td></tr> <tr><td style="width: 25px; height: 25px;"></td><td style="width: 25px; height: 25px;"></td><td style="width: 25px; height: 25px;"></td><td style="width: 25px; height: 25px;"></td></tr> <tr><td style="width: 25px; height: 25px;"></td><td style="width: 25px; height: 25px;"></td><td style="width: 25px; height: 25px;"></td><td style="width: 25px; height: 25px;"></td></tr> </table>																	
PRIMARY SAMPLING UNIT NUMBER (PSU)																				
STRUCTURE NUMBER																				
HOUSEHOLD NUMBER																				
ROTATION																				
NUMBER OF GROUP APPEARANCE																				
NUMBER OF GROUP ACCEPTANCE																				
DATE (Month and Year)																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 25%;">MONTH</th> <th style="width: 25%;">YEAR</th> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">0 1</td> </tr> </table>		MONTH	YEAR	2	0 1															
MONTH	YEAR																			
2	0 1																			
VISITS																				
1	2	3	D: Reason for non-interview																	
DATE _____ 1. Fully completed 2. Partially completed } 3. Non-interview } 4. Postponed } 5. Other (specify) }	_____ 1. Fully completed 2. Partially completed } 3. Non-interview } 4. Postponed } 5. Other (specify) }	_____ 1. Fully completed 2. Partially completed } 3. Non-interview } 4. Postponed } 5. Other (specify) }	1. Temporaly absent 2. Refused 3. Unable to locate 4. Vacant 5. Converted to business, etc 6. Demolished 7. Other non-Interview REASON <input style="width: 50px;" type="checkbox"/>																	
END INTRVIEW <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																	
NEXT VISIT																				
DATE _____																				
HOUR _____																				
TEAM LEADER/CHEF D'EQUIPE NAME _____ <input style="width: 40px;" type="checkbox"/>	FIELD EDITOR/CONTROLER NAME _____ <input style="width: 40px;" type="checkbox"/>	CODE OF OFFICE EDITOR/CODER <input style="width: 20px;" type="checkbox"/>	CODE OF DATA ENTRY CLERK <input style="width: 20px;" type="checkbox"/>																	

CODES

THOSE WHO ANSWERED "6MONTHS" OR LESS ON QUESTION A22 OF SECTION A ARE HOUSEHOLD MEMBERS.

THE FOLLOWING ARE ALSO CONSIDERED AS HOUSEHOLD MEMBERS:

- . Children less than 6 months
- . People who recently joined the household and will reside there permanently
- . New husbands or wives

IF THE ANSWER ON QUESTION A22 OF SECTION A IS "MORE THAN 6 MONTHS" ONLY THE FOLLOWING INDIVIDUALS ARE HOUSEHOLD MEMBERS:

- . The head of the household (dejure)
- . Those who answered 'no' on question A23 of section A
- . Persons who are absent but not living in another household

District codes. Question A14 and A17

- | | |
|----------------|----------------|
| 11. Nyarugenge | 35. Ngororero |
| 12. Gasabo | 36. Rusizi |
| 13. Kicukiro | 37. Nyamasheke |
| 21. Nyanza | 41. Rulindo |
| 22. Gisagara | 42. Gakenke |
| 23. Nyaruguru | 43. Musanze |
| 24. Huye | 44. Burera |
| 25. Nyamagabe | 45. Gicumbi |
| 26. Ruhango | 51. Rwamagana |
| 27. Muhanga | 52. Nyagatare |
| 28. Kamonyi | 53. Gatsibo |
| 31. Karongi | 54. Kayonza |
| 32. Rutsiro | 55. Kirehe |
| 33. Rubavu | 56. Ngoma |
| 34. Nyabihu | 57. Bugesera |

TECHNICAL SKILLS CODE FOR B10

- | | |
|-----------------------------|---|
| 01. Masonry | 24. Milk processing |
| 02. Carpentry | 25. Livestock |
| 03. Automotive technology. | 26. Horticulture production |
| 04. Culinary arts | 27. Food & Beverage services |
| 05. Domestic Electricity | 28. Front office |
| 06. Welding | 29. House keeping |
| 07. Plumbing | 30. Concrete masonry |
| 08. Food processing | 31. Leather craft |
| 09. Animal health | 32. Hairdressing |
| 10. Auto- Electricity | 33. Biding and Jewelries |
| 11. Automotive body repair | 34. Software Development |
| 12. Computer maintenance | 35. NCDs and Palliative Care Community Health |
| 13. Crop production | 36. Agriculture Mechanization |
| 14. Engine mechanics | 37. Agri-Business |
| 15. Forestry | 38. Bee Keeping |
| 16. Music | 39. Manicure and Pedicure |
| 17. Painting and decoration | 40. Beauty therapy |
| 18. Multimedia | 41. Screen printing |
| 19. Networking | 42. Sport and Medical Massage |
| 20. Tailoring | 43. Crochet embroidery |
| 21. Industrial electricity | 44. Pottery |
| 22. Civil construction | 45. Motor vehicle engine mechanics |
| 23. nursery growing | 46. Film making |

INTRODUCTION AND CONSENT

Hello. My name is _____. I am working with National Institute of Statistics of Rwanda. We are conducting the labour force survey in all districts. The information we collect will help the government to plan for employment in the country. Your household was selected for the survey. I would like to ask you some questions about your household. The questions usually take about 25 to 35 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. I hope you will accept to cooperate as your answers are very important for this reaserch

May I begin the interview now?

1. RESPONDENT AGREES TO BE INTERVIEWED	→ Continue the interview
2. RESPONDENT DOES NOT AGREE TO BE INTERVIEWED	→ END

SIGNATURE OF INTERVIEWER: _____ DATE: _____

RESPONDENT: Preferably every member aged 14 year and above should respond on his/her behalf. If unavailable the head of household should respond. In the case of the absence of head of household: the wife, or any other knowledgeable adult member of the household can provide information on other members.

Name of the respondent: _____

Tel: _____

SECTION A: HOUSEHOLD ROSTER

All household members

PID		01	02	03	04
NAMES					
List the usual Household members starting from the Household head, followed by his wife and children from the eldest to the youngest. Include other relatives and domestic servants if they are considered as household members. Do not forget babies.					
A01	Sex 1 Male 2 Female	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A02	What is the relationship of (NAME) to head of household? 01 Head 07 Brother or Sister/In law 02 Spouse (Wife/Husband) 08 Son/Daughter-in-law 03 Child (Son/daughter) 09 Other relative 04 Adopted/Foster/step child 10 Domestic helper 05 Grandchild 11 Non-relative 06 Parent/Parent-in-law	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A03	What is (NAME)'s date of birth? MONTHS YEAR	M <input type="text"/> Y <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A04	What was (NAME)'s age at last birthday?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A05	What is (NAME'S) present marital status? (Ask all age 12 and above) 1 Married monogamously 5 Separated 2 Married polygamous 6 Single 3 Living together 7 Widow/Widower 4 Divorced	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
QUESTIONS FROM A06 TO A11 ARE ASKED TO THOSE AGED 5 YEARS AND ABOVE					
A06	Do you have difficulty seeing, even if wearing glasses? 1 No - no difficulty 3 Yes - a lot of difficulty 2 Yes - some difficulty 4 Cannot do at all	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A07	Do you have difficulty hearing, even if using a hearing aid? 1 No - no difficulty 3 Yes - a lot of difficulty 2 Yes - some difficulty 4 Cannot do at all	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A08	Do you have difficulty walking or climbing steps? 1 No - no difficulty 3 Yes - a lot of difficulty 2 Yes - some difficulty 4 Cannot do at all	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A09	Do you have difficulty remembering or concentrating? 1 No - no difficulty 3 Yes - a lot of difficulty 2 Yes - some difficulty 4 Cannot do at all	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A10	Do you have difficulty (with self-care such as) washing all over or dressing? 1 No - no difficulty 3 Yes - a lot of difficulty 2 Yes - some difficulty 4 Cannot do at all	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A11	Using your usual language, do you have difficulty communicating, for example understanding or being understood? 1 No - no difficulty 3 Yes - a lot of difficulty 2 Yes - some difficulty 4 Cannot do at all	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A12	What is (NAME'S) nationality? 1 Rwanda 5 Tanzania 2 Burundi 6 Uganda 3 Congo-Kinshasa DRC 7 Rest of Africa 4 Kenya 8 Other country	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A13	What is (NAME'S) Residential Status in Rwanda? 1 Permanent Resident 2 Temporary Resident	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A14	What is (NAME'S) Country/Area of birth? IF (1) in A, WRITE CODE OF DISTRICT IN B 1 Rwanda 5 Tanzania 2 Burundi 6 Uganda 3 Congo-Kinshasa DRC 7 Rest of Africa 4 Kenya 8 Other country	A <input type="text"/> B <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A15	Has the usual place of residence of (NAME) always been in this district? 1 Yes → A2I 2 No	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A16	For how long (NAME)'s usual place of residence has been here since the last move? REGISTER 0 IF LESS THAN 1 YEAR YEARS	Y <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A17	In which district or foreign country did (NAME) live in prior to arrival here? IF (1) in A, WRITE CODE OF DISTRICT IN B 1 Rwanda 5 Tanzania 2 Burundi 6 Uganda 3 Congo-Kinshasa DRC 7 Rest of Africa 4 Kenya 8 Other country	A <input type="text"/> B <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

A18	In Which place did (NAME) live prior to arriving here? READ ANSWER 1 Capital City 2 District City 3 Country Side 4 Other (Specify)						
A19	How long did (Name) live in the previous location prior to arriving here? REGISTER 0 IF LESS THAN 1 YEAR						
A20	What is the main reason Why did (NAME) move away from previous location? 01 Parents moved 02 To live with relatives 03 To attend school 04 Marriage 05 Family quarrel 06 Divorce 07 Found job 08 Job transfer 09 To look for work 10 Looking for land to farm 11 Loss of employment 12 Employment of spouse 13 Coming back in country 14 Other						
A21	Has (NAME) been away from home for more than one month last 12 months? 1 Yes 2 No → A24						
A22	For how many months during the past 12 months has (NAME) been away from this household? (IF LESS THAN 6 MONTHS → A24)						
A23	While absent, is/was (NAME) a member of another household? (Including single person household) 1 Yes 2 No						
A24	HOUSEHOLD MEMBER (Check instruction) 1 Yes 2 No						

0-4 years old → NEXT PERSON
5-13 years old → A25
14 years old and above → NEXT PERSON

ACTIVITIES OF CHILDREN AGED 5 TO 13 YEARS OLD

A25	Is (NAME) currently studying or working? 1 Studying only → A29 2 Studying and working 3 Working only 4 Not studying, nor working → A29						
A26	What type of work does (NAME) do? 1 Work for pay. 2 Work without pay in non-agriculture family/ household enterprise 3 Work without pay in family farm or fishing 4 Self-employed 5 Other						
A27	How many days per week did [NAME] usually work in these activities?	days					
A28	How many hours per day did [NAME] usually work in these activities?	hours					
A29	In the last 7 days, how many hours did [NAME] spend collecting firewood for the household, including travel time?	hours					
A30	In the last 7 days, how many hours did [NAME] spend fetching water for the household, including travel time?	hours					
A31	In the last 7 days, how many hours did [NAME] spend searching for fodder or grazing for the household's animals?	hours					
A32	In the last 7 days, how many hours did [NAME] spend constructing your dwelling, making major repairs on it, farm buildings and private roads?	hours					
A33	In the last 7 days, how many hours did [NAME] spend doing household chores including shopping, preparing meals?	hours					
A34	In the last 7 days, how many hours did [NAME] spend looking after children and elderly?	hours					
→NEXT PERSON							

Names		_____ __ __ _____ __ __	
SECTION B. EDUCATION			
For household members 14 yrs old and above s			
B01	IS [NAME] currently studying?	1 Yes 2 No	1 Yes 2 No
B02	A. What is the Highest educational level is/ has [NAME] attending / attended? B. How many years have you completed in that level of education?	1 None 2 Pre-primary → B06 3 Primary education 4 Lower secondary education → B07 5 Upper secondary education 6 Tertiary education	1 None 2 Pre-primary → B06 3 Primary education 4 Lower secondary education → B07 5 Upper secondary education 6 Tertiary education
B03	What is the highest certificate [NAME] obtained	01 A3 02 D4 03 D5 04 A2/D6/D7 05 A1 06 A0 07 Post graduate diploma 08 Masters 09 PHD 10 Other	01 A3 02 D4 03 D5 04 A2/D6/D7 05 A1 06 A0 07 Post graduate diploma 08 Masters 09 PHD 10 Other
B04	In which country (place) was [NAME]'S highest qualification obtained?	01 Rwanda Public school 02 Rwanda Private school 03 Rwanda Parastatal school 04 Burundi 05 Congo-Kinshasa DRC 06 Kenya 07 Tanzania 08 Uganda 09 Rest of Africa 10 Europe 11 Asia 12 America 13 Australia	01 Rwanda Public school 02 Rwanda Private school 03 Rwanda Parastatal school 04 Burundi 05 Congo-Kinshasa DRC 06 Kenya 07 Tanzania 08 Uganda 09 Rest of Africa 10 Europe 11 Asia 12 America 13 Australia
B05	In which area did/is [NAME] specialize? Write the area of specialization in detail Code (ESCED 4 Digit)	_____ ISCED _____ NISR Fill → B07	_____ ISCED _____ NISR Fill → B07
B06	Is [NAME] able to read and write?	1 Yes 2 No	1 Yes 2 No
B07	Is [NAME] currently attending any trade or technical vocational course?	1 Yes → B9 2 No	1 Yes → B9 2 No
B08	Did [NAME] learn any trade or technical vocational course?	1 Yes 2 No → B15	1 Yes 2 No → B15
B09	How long will/did this course take?	1 Less than one month 2 1-3 Months 3 3-6 Months 4 One year 5 Two years 6 Three years or more	1 Less than one month 2 1-3 Months 3 3-6 Months 4 One year 5 Two years 6 Three years or more
B10	What type of technical skills did [NAME] learn?	_____	_____
B11	Where did (NAME) acquire these skills	Check List of Training Courses 1 Vocational School Course 2 Apprenticeship or on job Training 3 Learned from a friend or family 4 NGO 5 Community organization 6 Other (Specify): _____	Check List of Training Courses 1 Vocational School Course 2 Apprenticeship or on job Training 3 Learned from a friend or family 4 NGO 5 Community organization 6 Other (Specify): _____
B12	"Who was the main sponsor for this course?	1 Government 2 Employer 3 Self-financing 4 Private institutions/agencies/persons 5 Non-profit organization/charity 6 International organization 7 Other"	1 Government 2 Employer 3 Self-financing 4 Private institutions/agencies/persons 5 Non-profit organization/charity 6 International organization 7 Other"
B13	Did [NAME] complete the course?	1 Yes with certificate 2 Yes without certificate 3 No → B15	1 Yes with certificate 2 Yes without certificate 3 No → B15
B13A	In which year did (Name) complete this course?	Year __ __ __	Year __ __ __
B14	What happened after you completed the course?	1 Nothing 2 I was able to get a job 3 My salary increased 4 I was promoted at work 5 My job skills have improved 6 I got internship/traineeship with a company 7 Starting own business 8 Other specify _____	1 Nothing 2 I was able to get a job 3 My salary increased 4 I was promoted at work 5 My job skills have improved 6 I got internship/traineeship with a company 7 Starting own business 8 Other specify _____
B15	At what level, Could [NAME] use a computer?	1 Very well 2 Well 3 Less 4 Don't know	1 Very well 2 Well 3 Less 4 Don't know
B16	At what level could (Name) speak these languages?	A English B French C Swahili 1. Good 2. Fair 3. Don't know	A English B French C Swahili 1. Good 2. Fair 3. Don't know

SECTION C. IDENTIFICATION OF EMPLOYED, TIME-RELATED UNDEREMPLOYED, UNEMPLOYED, AND PERSONS IN POTENTIAL LABOUR FORCE					
C01	During the last 7 days, did (NAME) do any work for wage, salary, commissions, tips or any other pay, in cash or in kind, even if only for one hour? (including paid internees)	1 Yes → C10 2 No	<input type="checkbox"/>	1 Yes → C10 2 No	<input type="checkbox"/>
C02	During the past 7 days, did (NAME) run or do any kind of business, farming or other activity to generate income, if only for one hour?	1 Yes → C04 2 No	<input type="checkbox"/>	1 Yes → C04 2 No	<input type="checkbox"/>
C03	During the past 7 days, did (NAME) help unpaid in a business owned by a household or family member, or help a member of household or family in his/her paid job, even if only for one hour?	1 Yes 2 No → C06	<input type="checkbox"/>	1 Yes 2 No → C06	<input type="checkbox"/>
C04	Was this work in agriculture, farming or fishing?	1 Yes 2 No 3 Don't know } → C10	<input type="checkbox"/>	1 Yes 2 No 3 Don't know } → C10	<input type="checkbox"/>
C05	In general, are the products obtained from this activity for sale or for family use?	1 Only for sale/barter 2 Mainly for sale/barter } → C11 3 Mainly for family use 4 Only for family use	<input type="checkbox"/>	1 Only for sale/barter 2 Mainly for sale/barter } → C11 3 Mainly for family use 4 Only for family use	<input type="checkbox"/>
C06	During the last 7 days, did (NAME) have a paid job or a business from which he/she was temporarily absent and for which he/she expect to return?	1 Yes 2 No → C19	<input type="checkbox"/>	1 Yes 2 No → C19	<input type="checkbox"/>
C07	What was the main reason (NAME) was absent from work during the last 7 days? [Interviewer not to read answer categories]	Check list and enter code Codes 1 to 3 → C10 Code 7 → C19 Other codes continue	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Check list and enter code Codes 1 to 3 → C10 Code 7 → C19 Other codes continue	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
C08	What is the expected total absence from work for (NAME)?	1 Less than 3 months → C10 2 3 months or more 3 Not sure to return to work	<input type="checkbox"/>	1 Less than 3 months → C10 2 3 months or more 3 Not sure to return to work	<input type="checkbox"/>
C09	Does (NAME) continue receiving an income from his/her job during absence?	1 Yes 2 No → C19	<input type="checkbox"/>	1 Yes 2 No → C19	<input type="checkbox"/>
C10	Did [NAME] have any other paid job or business or any secondary activity to generate an income, during the last 7 days?	1 Yes 2 No	<input type="checkbox"/>	1 Yes 2 No	<input type="checkbox"/>
C11	How many hours does [NAME] usually work per week?	A Main job/Activity B Secondary jobs/Activity	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A Main job/Activity B Secondary jobs/Activity	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
C12	During the past 7 days, how many days did (NAME) actually work?	A Main job/activity B Secondary jobs/activity	<input type="checkbox"/> <input type="checkbox"/>	A Main job/activity B Secondary jobs/activity	<input type="checkbox"/> <input type="checkbox"/>
C13	During the past 7 days, how many hours per day (NAME) has actually worked?	A Main job/Activity B Secondary jobs/Activity	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A Main job/Activity B Secondary jobs/Activity	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
C14	Interviewer. How many hours has [NAME] usually worked at all jobs combined during the last 7 days?	1 Less than 35 hrs → C16 2 35 hrs - 48hrs → SECTION D 3 49 hrs or more	<input type="checkbox"/>	1 Less than 35 hrs → C16 2 35 hrs - 48hrs → SECTION D 3 49 hrs or more	<input type="checkbox"/>
CODES FOR QUESTION C07 1. Sick leave due to own illness or injury → C10 2. Public holidays, vacation or annual leave → C10 3. Maternity or paternity leave as specified by legislation → C10 4. Parental leave 5. Educational leave 6. Care for others and other personal absences 7. Seasonal work → C19 8. Strikes or lockouts 9. Reduction in economic activity (e.g. temporary lay-off, slack work) 10. Disorganization or suspension of work (e.g. due to bad weather, mechanical, electrical or communication breakdown) 11. Other Specify					

C15	What was the main reason (NAME) usually worked long hours per week?	1 Nature of work 2 To earn more money 3 Lack of employees 4 Meet deadlines 5 Other specify } Section D	<input type="checkbox"/>	1 Nature of work 2 To earn more money 3 Lack of employees 4 Meet deadlines 5 Other specify } Section D	<input type="checkbox"/>
C16	During the last 4 weeks, did (NAME) look for additional or other work?	1 Yes → C18 2 No	<input type="checkbox"/>	1 Yes → C18 2 No	<input type="checkbox"/>
C17	Would (NAME) want to work more hours per week than usually worked provided the extra hours are paid or profitable?	1 Yes 2 No → SECTION D	<input type="checkbox"/>	1 Yes 2 No → SECTION D	<input type="checkbox"/>
C18	If an opportunity for additional work became available, could (NAME) start working more hours within the next two weeks?	1 Yes 2 No } SECTION D	<input type="checkbox"/>	1 Yes 2 No } SECTION D	<input type="checkbox"/>
C19	During the last 4 weeks, did [NAME] look for any kind of paid job or try to start any kind of business?	1 Yes → C21 2 No	<input type="checkbox"/>	1 Yes → C21 2 No	<input type="checkbox"/>
C20	Has [NAME] already found a job or arranged to start a business in the next 4 weeks?	1 Yes → C25 2 No → C23	<input type="checkbox"/>	1 Yes → C25 2 No → C23	<input type="checkbox"/>
C21	What did [NAME] do in the last 4 weeks to find a paid job or start a business?	Check list and mark up to four codes If "No method" (code 8) → C23	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Check list and mark up to four codes If "No method" (code 8) → C23	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
C22	For how long has [NAME] been without work and trying to find a paid job or start a business?	1 Less than 1 month 2 1 – less than 3 months 3 3 – less than 6 months 4 6 – less than 12 months 5 1 – less than 2 years 6 2 years or more } C25	<input type="checkbox"/>	1 Less than 1 month 2 1 – less than 3 months 3 3 – less than 6 months 4 6 – less than 12 months 5 1 – less than 2 years 6 2 years or more } C25	<input type="checkbox"/>
C23	Would [NAME] want to work if a paid job or business opportunity became available?	1 Yes 2 No → SECTION F	<input type="checkbox"/>	1 Yes 2 No → SECTION F	<input type="checkbox"/>
C24	What was the main reason (NAME) did not try to find a paid job or start a business in the last 4 weeks?	Check list and enter code _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Check list and enter code _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
C25	If a paid job or business opportunity become available, could [NAME] have started work during the last 7 days or within the next two weeks?	1 Yes → SECTION F 2 No	<input type="checkbox"/>	1 Yes → SECTION F 2 No	<input type="checkbox"/>
C26	What is the main reason why (NAME) could not start working in the last 7 days or next two weeks?	1 In Study, training 2 Maternity leave, child care 3 Injury, illness 4 Family member(s) consider that (NAME) should stay home 5 Other } SECTION F	<input type="checkbox"/>	1 In Study, training 2 Maternity leave, child care 3 Injury, illness 4 Family member(s) consider that (NAME) should stay home 5 Other } SECTION F	<input type="checkbox"/>

CODES FOR QUESTION C 21

1. Arranging for financial resources, applying for permits, licenses
2. Looking for land, premises, machinery, supplies, farming inputs
3. Seeking the assistance of friends, relatives or other types of intermediaries
4. Registering with or contacting public or private employment services
5. Applying to employers directly, checking at worksites, farms, factory gates, markets or other assembly places
6. Placing or answering newspaper or online job advertisements

7. Placing or updating resumes on professional or social networking sites online
8. No method → C23
9. Other, specify _____

CODES FOR QUESTION C24

1. Own illness
2. Disability
3. Studies
4. Pregnancy
5. Presence of small children/ elders / sick people
6. Refusal by family
7. Past failure to find suitable job

8. Lack of experience, qualification or jobs matching skills
9. Lack of jobs in the area
10. Considered too young or too old by prospective employers
11. Lack of infrastructure (assets, roads, transportation, employment services)
12. Other sources of income (pension, rent)
13. Estrangement
14. Others specify

D14	Does [NAME] receive in-kind payments in main job such as food, agricultural products, livestock ?	1 Yes 2 No → D20	<input type="checkbox"/>	1 Yes 2 No → D20	<input type="checkbox"/>
D15	What is the value of these in-kind payments?	1 Enter amount FRw _____ 2 Refusal } → D17 3 Don't know }	<input type="checkbox"/>	1 Enter amount FRw _____ 2 Refusal } → D17 3 Don't know }	<input type="checkbox"/>
D16	What period did it cover?	1 Month 2 Two weeks 3 One week } → D20 4 One day 5 Other, specify _____	<input type="checkbox"/>	1 Month 2 Two weeks 3 One week } → D20 4 One day 5 Other, specify _____	<input type="checkbox"/>
D17	Taking into account both cash and in kind payments, Would you say the monthly amount of (NAME)'s earnings was in the range ...?	1 Less than 20,000 RWF 2 20,000 – 29,999 RWF 3 30,000 – 49,999 RWF 4 50,000 – 99,999 RWF 5 100,000 RWF and above 6 Refusal 7 Don't know } → D20	<input type="checkbox"/>	1 Less than 20,000 RWF 2 20,000 – 29,999 RWF 3 30,000 – 49,999 RWF 4 50,000 – 99,999 RWF 5 100,000 RWF and above 6 Refusal 7 Don't know } → D20	<input type="checkbox"/>
D18	What is the net monthly earnings of (NAME) from his/her business or activity? (Note: Net monthly earnings should be gross income minus associated total expenditures. This should include payments to contributing family workers, as well as off-take by the individual and contributing family members.)	A. Enter amount FRw _____ → D19 2 Refusal 3 Don't know B. 1 Less than 20,000 RWF 2 20,000 – 29,999 RWF 3 30,000 – 49,999 RWF 4 50,000 – 99,999 RWF 5 100,000 RWF and above 6 Refusal } → D20 7 Don't know }	A. <input type="checkbox"/>	A. Enter amount FRw _____ → D19 2 Refusal 3 Don't know B. 1 Less than 20,000 RWF 2 20,000 – 29,999 RWF 3 30,000 – 49,999 RWF 4 50,000 – 99,999 RWF 5 100,000 RWF and above 6 Refusal } → D20 7 Don't know }	A. <input type="checkbox"/>
D19	Was this below average, above average, or average of monthly earnings during last year?	1 Below average 2 Average 3 Above average	<input type="checkbox"/>	1 Below average 2 Average 3 Above average	<input type="checkbox"/>
D20	Is the business/establishment where [NAME] works registered with the Rwanda Revenue Authority or pay PAYE/TPR?	1 Yes 2 No 3 Don't know	<input type="checkbox"/>	1 Yes 2 No 3 Don't know	<input type="checkbox"/>
D21	In order to report to an authority, does the business/establishment where (NAME) works keep written records of accounts?	1 Yes 2 No 3 Don't know	<input type="checkbox"/>	1 Yes 2 No 3 Don't know	<input type="checkbox"/>
D22	Including (NAME), how many regular paid or unpaid workers worked at (NAME)'s place of work/ Establishment?	A. Less than 10 give exact number. Otherwise mark 0 B. Ten or more 1 10-30 workers 2 31-50 workers 3 51-100 workers 4 101 workers or more	A. <input type="checkbox"/>	A. Less than 10 give exact number. Otherwise mark 0 B. Ten or more 1 10-30 workers 2 31-50 workers 3 51-100 workers 4 101 workers or more	A. <input type="checkbox"/>
D23	In what type of place does [NAME] usually work?	01 At home 02 Structure attached to the home 03 At the client/employer's home 04 At an office, shop, factory, or other fixed workplace 05 Fixed stall in market 06 Non-fixed stall/stand in market 07 Street 08 Land, forest, sea, mining site. 09 Verranda of commercial house 10 Construction site 11 Other (specify): _____	<input type="checkbox"/>	01 At home 02 Structure attached to the home 03 At the client/employer's home 04 At an office, shop, factory, or other fixed workplace 05 Fixed stall in market 06 Non-fixed stall/stand in market 07 Street 08 Land, forest, sea, mining site. 09 Verranda of commercial house 10 Construction site 11 Other (specify): _____	<input type="checkbox"/>
D24	For how long has [NAME] been working (total experience)?	1 Less than 3 months 2 3-less than 6 months 3 6- less than 12 months 4 1 year - Less than 2years 5 2 years - Less than 5years 6 5 years or more	<input type="checkbox"/>	1 Less than 3 months 2 3-less than 6 months 3 6- less than 12 months 4 1 year - Less than 2years 5 2 years - Less than 5years 6 5 years or more	<input type="checkbox"/>
D25	In day to day work does [NAME] need the computer to perform his/her duties?	1 Yes 2 No → D27	<input type="checkbox"/>	1 Yes 2 No → D27	<input type="checkbox"/>
D26	Does (NAME) use computer in his/her day-to-day work?	1 Yes 2 No	<input type="checkbox"/>	1 Yes 2 No	<input type="checkbox"/>
D27	INTERVIEWER: Check on question C10 whether a secondary paid job or business/activity is reported	1 Yes → SECTION E 2 No → SECTION G	<input type="checkbox"/>	1 Yes → SECTION E 2 No → SECTION G	<input type="checkbox"/>

E. CHARACTERISTICS OF SECONDARY ACTIVITY

E01	A. What was (NAME)'s occupational position in his/her secondary job/activity?	_____	_____	_____	_____
		(Occupational title)		(Occupational title)	
E02	B. What were (NAME)'s main tasks and duties?	_____	ISCO _ _ _ _	_____	NISR _ _ _ _
		(Name) 1 _____ 2 Domestic worker 3 No name	_	(Name) 1 _____ 2 Domestic worker 3 No name	_
E03	A. What is the name of (NAME)'s workplace at his/her secondary job/activity?	_____	ISIC _ _ _ _	_____	NISR _ _ _ _
		(Description)		(Description)	
E04	B. What are the main goods or services produced at (NAME)'s workplace in his/her secondary job/activity?	_____	ISIC _ _ _ _	_____	NISR _ _ _ _
		(Description)		(Description)	
E05	In his/her secondary job/activity, does (NAME) work in ...? READ ANSWER FOR RESPONDENT	READ 1 Public institution/enterprise 2 Mixed public and private enterprise 3 Private 4 International NGO/International organisation 5 Local NGO/Religious organisation 6 Cooperative 7 Household 8 Others. Specify _____	_	READ 1 Public institution/enterprise 2 Mixed public and private enterprise 3 Private 4 International NGO/International organisation 5 Local NGO/Religious organisation 6 Cooperative 7 Household 8 Others. Specify _____	_
E06	In his/her secondary job/business, does (NAME) work as ...? READ ANSWER FOR RESPONDENT	1 Employee 2 Paid apprentice/Intern 3 Employer (with regular employees) 4 Own account worker(without regular employees) } → E07 5 Member of cooperative 6 Contributing family worker → E10 7 Other (please specify) _____		1 Employee 2 Paid apprentice/Intern 3 Employer (with regular employees) 4 Own account worker(without regular employees) } → E07 5 Member of cooperative 6 Contributing family worker → E10 7 Other (please specify) _____	
E07	Does [NAME]'s employer pay contributions on [NAME]'s behalf to..	A. Social security fund B. Health insurance fund 1.Yes, 2.No, 3. Don't know	A. _ B. _	A. Social security fund B. Health insurance fund 1.Yes, 2.No, 3. Don't know	A. _ B. _
E08	Is (NAME) entitled to the following benefits from employer?	A. Paid annual leave B. Paid sick leave C. Paid maternity/paternity leave? 1.Yes, 2.No, 3. Don't know	A. _ B. _ C. _	A. Paid annual leave B. Paid sick leave C. Paid maternity/paternity leave? 1.Yes, 2.No, 3. Don't know	A. _ B. _ C. _
E09	Is the business/establishment where [NAME] works for registered with the Rwanda Revenue Authority or pay PAYE/TPR?	1 Yes 2 No 3 Don't know	_	1 Yes 2 No 3 Don't know	_
E10	In order to report to an authority, does the business/establishment where (NAME) works keep written records or accounts?	1 Yes 2 No 3 Don't know	_	1 Yes 2 No 3 Don't know	_
E09	Including (NAME), how many regular paid or unpaid workers worked at (NAME)'s place of work?	A. Less than 10 give exact number. Otherwise mark 0 B. Ten or more 1 10-30 workers 2 31-50 workers 3 51-100 workers 4 101 workers or more	A. _ _ B. _ _	A. Less than 10 give exact number. Otherwise mark 0 B. Ten or more 1 10-30 workers 2 31-50 workers 3 51-100 workers 4 101 workers or more	A. _ _ B. _ _
E10	In what type of place does [NAME] usually work?	01 At home 02 Structure attached to the home 03 At the client/employer's home 04 At an office, shop factory, or other fixed workplace 05 Fixed stall in market 06 Non-fixed stall/stand in market 07 Street 08 Land, forest, sea, mining site. 09 Verranda of commercial house 10 Construction site 11 Other (specify): _____	_ _ _	01 At home 02 Structure attached to the home 03 At the client/employer's home 04 At an office, shop factory, or other fixed workplace 05 Fixed stall in market 06 Non-fixed stall/stand in market 07 Street 08 Land, forest, sea, mining site. 09 Verranda of commercial house 10 Construction site 11 Other (specify): _____	_ _ _

G. UN PAID HOME PRODUCTION GOODS AND SERVICES IN LAST 7 DAYS

Not to be asked to domestic workers who are paid)

G01	In the last 7 days, how many hours did [NAME] spend collecting firewood for the household, including travel time?	Hours		Hours	
G02	In the last 7 days, how many hours did [NAME] spend fetching water for the household, including travel time?	Hours		Hours	
G03	In the last 7 days, how many hours did [NAME] spend searching for fodder or grazing for the household's animals?	Hours		Hours	
G04	In the last 7 days, how many hours did [NAME] spend constructing your dwelling, making major repairs on it, farm buildings, private roads, or wells?	Hours		Hours	
G05	In the last 7 days, how many hours did [NAME] spend manufacturing household goods for own or family use (such as furniture, textiles, clothing, footwear, pottery, crafts or other durables, excluding foodstuff)?	Hours		Hours	
G06	In the last 7 days, how many hours did [NAME] spend doing household chores including shopping, preparing meals?	Hours		Hours	
G07	In the last 7 days, how many hours did [NAME] spend looking after children and elderly?	Hours		Hours	

H. CHARACTERISTICS OF SUBSISTENCE AGRICULTURE WORK LAST MONTH

H01	During the last four weeks did [NAME] do any of the following work mainly for own consumption such as farm work, growing fodder, raising or tending animals Fishing, storage such flour, dry fish or other food and drink hunting, or gathering foodstuff, Preparing foodstuff for storage such flour and drinks	1 Yes 2 No → Next person If last one go to H04		1 Yes 2 No → Next person If last one go to H04	
H02	How many days per week has [NAME] usually worked in these activities?	Days		Days	
H03	How many hours per day has [NAME] usually worked in these activities?	Hours		Hours	
H04	INTERVIEWER: CHECK H01 IF NO ONE HAS DONE ANY AGRICULTURAL ACTIVITY			1 Yes → H05 2 No → Section I	

INFORMATION ON SUBSISTENCE AGRICULTURE INCOME			
H05	In general, did the household sell or barter any part of the goods obtained from this work?	1 No, never sell → H07 2 Sell excess from time to time → H07 3 Yes, regularly	<input type="checkbox"/>
H06	About how much does the household regularly sell?	1 ¼ or less 2 More than ¼ but less than half 3 More than half (>50%)	<input type="checkbox"/>
H07	What was the net Value in FRW the household get from agricultural activities during the last season? <i>(Include both agricultural items sold for cash and own consumption from all crop, livestock, hunting, and fishing activities in the last four months, net of associated costs.)</i>	1 0- 9,999 RWF 2 10,000 - 39,999 3 40,000 - 89,999 4 90,000 - 179,999 5 180,000 - 239,999 6 240,000 and above	<input type="checkbox"/>
H08	Was the previous season below/above average or an average season for your household?	1 Above average 2 Average 3 Below average	<input type="checkbox"/>
H09	Do you regularly or sometimes engage paid employee in the farming activity?	1 Yes regularly 2 Yes sometimes 3 No, never → H11	<input type="checkbox"/>
H10	Excluding family members, how many paid employees do you usually engage in these agricultural activities?	1 1 - 3 2 4 - 5 3 More than 5	<input type="checkbox"/>
H11	How did you get access to the land for the agricultural work? (More than one answer is acceptable) Read modalities and give answer for each	a leasing (have land title)/own/Household land b Renting (share-cropping) c Renting (fixed rent) d Renting (free of charge) e Communal rights/public 1. Yes, 2. No	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

SECTION I: HOUSING AND HOUSEHOLD ASSETS

To be Responded by the Head of Household

I01			I02	I03
What is the main material used in building this house? (For roof, exterior walls, and floor)			How many rooms in your household are used for sleeping? (excluding rooms extensively occupied by other HH)	What type of toilet does your household have?
Roof	Exterior walls	Floor	Rooms _ _ _	1. Flush toilet 2. Pit Latrine with constructed floor slab 3. Pit latrine without constructed floor slab 4. No toilet (bush, channeled water, river, etc.) 6. Other (specify)
1. Metal sheets/corrugated iron 2. Tiles clay 3. Concrete 4. Bamboo 5. Plastic/plywood/ impermanent material 6. Other (specify) _ _	01. Mud bricks 02. Mud bricks with cement (stucco) 03. Oven fired bricks 04. Cement blocks 05. Wooden planks 06. Stones 07. Tree trunks with mud 08. Tree trunks with mud and cement 09. Plastic Sheeting 10. Other (specify) _ _ _	1. Beaten earth 2. Dung hardened 3. Wooden floor 4. Clay tiles 5. Cement 6. Bricks 7. Other (specify) _ _		

I04	I05	I06	I07
What is the main source of energy in your household for lighting?	What is the main source of energy in your household for cooking?	What is the main source of water in your household for drinking and other uses?	Does this household own the following assets? (More than one answer is acceptable) The assets should be functional
01. Electricity 02. Biogas 03. Generator 04. Oil lamp/ Candle 05. Firewood 06. Telephone/ Torche 07. Lantern 08. Solar Panel 09. Batteries+Bulb 10. Other, Specify _ _ _	01. Firewood 02. Charcoal 03. Gas 04. Biogas 05. Solar power 06. Electricity 07. Oil/Kerosene 08. Crop waste 09. Animal dung 10. Other, Specify _ _ _	01. Piped Into Dwelling 02. Piped To Yard/Plot 03. Public Tap/Standpipe 04. Tube Well Or Borehole 05. Protected Well 06. Unprotected Well 07. Protected Spring 08. Unprotected Spring 09. Rainwater 10. Tanker Truck 11. Surface Water (River/Lake/Pond/Stream/ Irrigation Channel) 12. Bottled water 13. Other (Specify) Drinking Water Other Uses I06a I06b _ _ _ _	Yes=1/ No =2 Refrigerator/Freezer..... A. _ _ Radio..... B. _ _ TV set..... C. _ _ Satellite..... D. _ _ Video/DVD player..... E. _ _ Computer and accessories..... F. _ _ Music system..... G. _ _ Cooker..... H. _ _ Sewing machine..... I. _ _ Laundry machine..... J. _ _ Electric fan..... K. _ _ Camera..... L. _ _ Mobile phone..... M. _ _ Car (for home use only)..... N. _ _ Bicycle (for home use only)..... O. _ _ Motorcycle (for home use only)..... P. _ _

Annex E. List of officials involved in the survey

Yusuf MURANGWA
Director General

TECHNICAL DIRECTOR

Michel NDAKIZE RUGAMBWA

SURVEY DESIGN

Farhad MEHRAN

DATA COLLECTION

Survey Coordinators

Michel NDAKIZE RUGAMBWA

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Gilbert MUGENZI

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Madeleine MUKAZITONI

IMANISHIMWE VALENTINE

UWAMA HORO Pacifique

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