



The Republic of Rwanda



nisr

NATIONAL INSTITUTE OF
STATISTICS OF RWANDA

Labour Force Survey

Annual Report 2019

March 2020



Republic of Rwanda



Labour Force Survey

Annual Report 2019

March 2020

Labour Force Survey, Annual report 2019, is produced by the National Institute of Statistics of Rwanda (NISR).

Additional information about Labour Force Survey, Annual report 2019 may be obtained from NISR:

P.O. Box 6139, Kigali, Rwanda; Telephone: (+250) 788383103; Hotline: 4321

E-mail: info@statistics.gov.rw; Website: <http://www.statistics.gov.rw>

Recommended citation:

National Institute of Statistics of Rwanda (NISR), Labour Force Survey, Annual report 2019, March 2020

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.

The government of Rwanda needs updated information for monitoring progress on programs and policies as stipulated in the first National Strategy for Transformation (NST1) 2017-24, Sustainable Development Goals (SDGs) as well as vision 2050. 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 since 2016 to provide key stakeholders, Ministry of Public Service and Labour and Ministry of Finance and Economic Planning, the Ministry of Education, International Labour Organization and other users, with needed labour statistics.

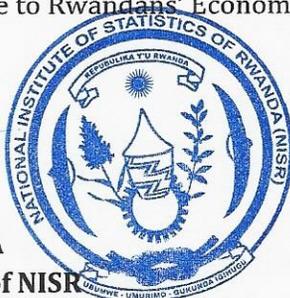
The ultimate goal of the labour force survey is to collect data on employment and labour underutilization characteristics of the population on a continuous basis, providing quarterly estimates of the main labour force aggregates. The Rwanda Labour Force survey programme begun in 2016 with an annual sample spread into two rounds to provide bi-annual estimates of main indicators at the National level. From February 2019, the annual sample was spread into four rounds to provide estimates of main labour market indicators on quarterly basis at the National level. This specific report combine data of all four rounds for which the data collection was conducted in 2019, specifically in February, May, August and November, to provide 2019 annual estimates at national and district level where applicable.

NISR congratulates all those who contributed in one way or the other in this exercise. In particular, NISR expresses its gratitude to all survey coordinators, supervisors, team leaders, interviewers and drivers for their commitment in all stages of this survey. NISR is also grateful to respondents who generously gave their valuable time to provide the information that forms the basis of this report.

The National Institute of Statistics of Rwanda invite policy makers, program managers, researchers and all users to play an important role in using the valuable data showcased in the Labour Force Survey to contribute to Rwandans' Economic development.



Yusuf MURANGWA
Director General of NISR



Executive summary

Rwanda redesigned LFS from bi-annual to quarterly basis since February 2019 to provide estimates of labour market indicators and monitor labour market trends on a quarterly basis.

The data collection on the size and characteristics of the labour force, employment, unemployment and other labour market characteristics of the population was carried out through four quarters of 2019, specifically in February, May, August and November. 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. All the key concepts used henceforth in this report (employment, unemployment, time related underemployment, labour underutilization, potential labour force, discouraged job seekers etc) are defined in annex A of this report. The current report presents the results of the annual report of 2019 LFS obtained by combining all quarters of LFS in 2019 (February, May, August and November 2019).

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 August 2018 sample design has been used as a transition to the quarterly sample design for a quarterly labour force survey whose implementation started in February 2019. To take in account quarterly design that minimize the disruption from the previous design some modifications on August 2018 rounds were made in order to keep the same annual sample size. An implication of these modifications was a slight increment in sample intake of household per primary sampling unit among the sampled 288 enumeration areas to ensure smooth transition to the sample size requirement of the quarterly design. The sample intake of 24 households among 96 PSU used in May and November 2019 were used. The resulting estimates of the main labour force indicators at the national level from the combined datasets have standard errors of about 0.6 percent.

The survey results are analyzed in this report under twelve 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, the working age population (16 years and above) was 7,231,536 of which 3,862,799 persons (53.4 percent) were in the labour force, while 3,368,737 were outside the labour force. For those in the labour force, 3,273,921 were employed, while 588,878 were unemployed. Among those outside the labour force, 1,693,174 persons were engaged wholly or mostly in subsistence foodstuff production, not classified as employment according to the 2013 international standards on statistics of work, employment and labour underutilization.

The annual unemployment rate stood at 15.2 percent, indicating that roughly for seven persons in the labour force there was one person unemployed. The unemployment rate was higher among women (17.0 percent) than among men (13.8 percent) and higher among young people 16-30 year

(19.4) than among adults 31 years and above (12.0 percent). It was relatively the same in the urban and rural areas (15.3 and 15.2 percent respectively).

Components of labour underutilization

The unemployment rate is not the only component of the unmet needs for employment. Other components include time-related underemployment and potential labour force. In total there were 877,637 persons classified as time-related underemployed¹ and 1,542,550 persons classified as potential labour force². The composite measure of labour underutilization was 55.7 percent, which means that 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 or who were seeking employment during the reference period but were not currently available for work).

Branches of economic activity

Employment under the three broad branches of the economic activity is as follows: the share of industry was 18.7 percent, 43.9 percent for services and agriculture 37.4 percent. Under the new international standards, employment in agriculture sector includes only those who produce agriculture goods intended mainly for sale or barter and those who work for pay in agriculture. Hence 37.4 percent employment in agriculture represents the new definition. The new definition excludes those in substance agriculture.

The full count of workers in agriculture sector reveals that around 3,794,810 people (52.5 percent) of working age population were involved in agriculture activity either in subsistence or market oriented in 2019. The proportion of workforce³ who was mainly engaged in agriculture was 61.2 percent.

Informal sector and informal employment

The results of the survey show that there were about 2,480,363 employed persons in the informal sector, corresponding to about 75.8 percent of total employment and most of them were male. There were in total 2,931,494 persons with informal employment at main job constituting almost 89.5 percent of total employment. A significant result was the presence of some 238,264 persons with informal jobs in formal sector.

Working time

The average and median number of hours usually worked at all jobs were 39.0 and 36 hours per week respectively, and the corresponding hours actually worked during the reference week were

¹ Time-related underemployment, are part of employed people but work less hours and are available and want to work

for additional paid hours

² The majority of potential labour force are involved in subsistence agriculture

³ The workforce has been considered as the sum of employed population and those mainly engaged in subsistence agriculture.

33.0 hours for the average and 30 hours for the median. The total volume of employment in terms of actual hours worked at all jobs in the reference week was 106 million hours

Income from employment

The average income from paid employment of employees at main job was about 57,877 RWF per month while the median was 21,667 RWF. The national average hourly cash income from employment of employees at main job was 415 RWF per hour.

Women and equal opportunities

Women accounted for close to 44.8 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, 32.1 percent were women.

Youth and education

The unemployment rate among young persons (16 to 30 years old) stood at 19.4 percent. The survey showed an increasing pattern of youth unemployment rate from about 16.2 percent for young people with no educational attainment to 30.0 percent for youth with secondary education and 28.8 percent among youth who completed university education. Youth unemployment rate among those who completed TVET was 15.4 percent while it was 16.9 percent among those with general education.

Workers with disabilities

More than one-fifth (19.2 percent) of the working age persons with disabilities were labour force participants, and the unemployment rate of persons with disabilities (14.2 percent) was lower than the unemployment rate of the working age population at national level (15.2 percent).

Rwanda Labour force survey 2019: Summary labour force indicators

Working age population 16 years old and over 7,231,536 persons						
Outside the labour force 3,368,737 person		Labour force 3,862,799 persons Labour force participation rate 53.4%				
Subsistence foodstuff producers: 50.3%	Others outside the labour force: 49.7%	Employed (All who worked for pay or profit) 3,273,921 persons Employment to population ratio: 45.3%			Unemployed (All not employed but seeking and available to work for pay or profit) 588,878 persons Unemployment rate:15.2%	
Primary or below: 69.8%	Agriculture excluding subsistence foodstuff production 37.4 %	Industry 18.7 %	Services 43.9 %	Primary education or below 70.3 %	Secondary education (Lower and upper) 22.8 %	Tertiary education 6.9%
Secondary (Lower and Upper): 26.0%	Supplied weekly labour: 106 million hours					
Tertiary: 4.2%	Labour underutilization (3,009,065 persons): Unemployed (588,878) + Time-related underemployed (877,637) + Potential labour force 1,542,550 Composite measure of labour underutilization (55.7%)					

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

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		60.1	45.2		10.5	13.4
Primary	43.1	55.2	44.7	14.7	15.3	14.8
Lower secondary	24.9	65.8	30.9	19.3	13.9	17.7
Upper secondary	43.7	59.7	46.6	24	23.6	23.9
University	74.6	81.5	75.3	15.1	10.0	14.6
Young/Adult						
Young (16-30)	34.3	59.4	41.3	21.9	19.6	19.4
Adults (31+)	56	59.7	48.6	11.8	12.5	12
Total	43	59.6	45.3	16.9	15.4	15.2

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Trend of Labour force survey Main indicators (Compare 3 years)

Indicators	2017	2018	2019
Labour force participation rate (%)	53.4	54.2	53.4
Foodstuff production participation rate (outside LF) (%)	25.5	24.4	23.4
Proportion of labour force who completed at least secondary school education (%)	16.6	16.8	17.4
Employment to population ratio (%)	44.2	46.0	45.3
Percentage of employed population in market oriented agriculture (%)	41.9	39.5	39.5
Percentage of employed population in industry (%)	16.6	18.8	18.7
Percentage of employed population in services	41.5	41.7	43.9
Number of off-farm main jobs(agriculture excluded))	1,692,423	1,902,117	2,023,095
Informal employment rate (%)	90.80	89.8	89.5
Proportion of informal employment in non-agriculture employment (%)	84.6	83.5	83.5
Median weekly hours actually worked	30	30	33
Median weekly hours usually worked	36	36	39.0
Supplied labour in hours during the reference week (in millions of hours)	97	107	106
Unemployment rate (%)	17.3	15.1	15.2
Unemployment rate among university graduates (%)	16.8	15.7	14.6
Unemployment rate among secondary school graduates (%)	26.5	26.5	23.9
Unemployment rate among females (%)	19.2	17.1	17.0
Unemployment rate among males (%)	15.6	13.5	13.8
Unemployment rate among TVET graduates (%)	18.7	17.4	15.4
Unemployment rate among general education graduates (%)	18.8	17.2	16.9
Unemployment rate among persons with disability (%)	17.4	14.1	14.3
Youth unemployment rate (%)	21.3	18.7	19.4
Time related underemployment rate (%)	29.9	32.0	27.1
Combined rate of labour underutilization (%)	58.0	55.0	55.7
Average monthly salary from paid employment (In Frw)	57,262	56,982	57,878
Average monthly salary in agriculture (In Frw)	21,134	20,352	20,384
Average monthly salary in industry (In Frw)	67,232	58,509	63,346
Average monthly salary in services (In Frw)	105,784	108,722	103,694
Proportion of TVET graduates who are employed	54.2	58.0	59.6
Proportion of General education graduates who are employed (%)	42.4	43.9	43.0
Share of women in non -agricultural paid employment (%)	31.3	31.2	32.5
Share of youth in non-agricultural paid employment (%)	51.3	50.5	49.6
Manufacturing employment as a proportion of total employment (%)	5.3	6.4	6.4

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Table of Contents

Foreword.....	Error! Bookmark not defined.
Executive summary.....	ii
Table of Contents.....	viii
List of Tables.....	x
List of Figures.....	xii
List of statistical tables in Annex C.....	xiv
Chapter 1: Main labour force indicators.....	1
Chapter 2: Working age population characteristics and Labour force participation.....	5
Chapter 3: Employment.....	9
3.1 Status in employment.....	9
3.2 Branches of economic activity and occupations.....	10
3.2.1 Branches of economic activity.....	10
3.2.2 Occupation.....	13
3.3 Informal sector and informal employment.....	15
3.4 Working time and income from employment.....	18
3.4.1 Working time.....	18
3.4.2 Income from employment.....	19
3.5 Job creation.....	22
Chapter 4: Unemployment and labour underutilization.....	25
4.1 Unemployment rate.....	25
4.2 Methods and duration for seeking employment.....	27
4.3 Labour underutilization.....	28
Chapter 5: Persons outside the labour force.....	33
Chapter 6: Women and equal opportunities.....	37
Chapter 7: Youth population.....	39
7.1 Youth and education.....	39
7.2 Youth neither in employment, nor in education or training (NEET).....	40
Chapter 8: Participation in training programmes.....	43
Chapter 9: Work in Agriculture.....	47
9.1 Agricultural status of workers.....	47

9.2 Characteristics of agriculture workers	47
9.2.1 Market-oriented agriculture workers	47
9.2.2 Subsistence foodstuff producers	48
9.3 Practices of households engaged in subsistence foodstuff production	49
9.4 Share of agricultural workers in total work force	51
Chapter 10: Own use production works out of agriculture	53
Chapter 11: Migrant workers.....	57
Chapter 12: Workers with disabilities.....	63
Annex A: Main concept and definitions	65
Annex B: Survey methodology and data quality	72
Annex C: Statistical tables.....	89
Annex E: Officials involved in the Labour Force Survey 2019	135

List of Tables

Table 1. 1: Main labour force indicators, LFS_2019	1
Table 3. 1: Employed persons by branch of economic activity in main job	11
Table 3. 2: Employed persons by occupation and sex in main job	14
Table 3. 3: Distribution of employed population by occupation according to the level of education	14
Table 3. 4: Classification of Production units and informal or formal job	17
Table 3. 5: Usual and actual hours of work at main and secondary jobs	18
Table 3. 6: Period of coverage of last income payment of paid employees at main job	21
Table 3. 7: Size distribution of harmonized monthly income from employment at main job	21
Table 3. 8: Net change in employment at main Job from 2018 to 2019	23
Table 3. 9: Distribution of employed persons with less than 1 year of total experience by economic activity, according to the year of interview	24
Table 4. 1: Duration of unemployment: Elapsed duration of job search	27
Table 5. 1: Main source of livelihood of persons outside the labour force by sex and age group	35
Table 5. 2: Demographic characteristics of population outside labour force	36
Table 6. 1: Women and men in managerial positions	38
Table 6. 2: Occupations with high gender segregation	38
Table 7. 1: Youth population (16-30 yrs) with respect to employment and education or training, 2019	41
Table 8. 1: Participation in trade or technical vocational course and current employment status	43
Table 9. 1: Works status in agriculture	47
Table 10. 1: Average time spend per week on own-use production	54
Table 11. 1: Province of last move and province of current residence of internal migrants	58
Table 11. 2: Country of last move and current residence of international migrants	59

List of Figures

Figure 1. 1: Regional variations of Labour force participation rate, Employment-to-population ratio and Unemployment rate.....	3
Figure 2. 1: Working age population status (16 years and above)	5
Figure 2. 2: Percentage distribution of labour force by educational attainment	6
Figure 2. 3: Distribution of labour force by education attainment among young and adult population	6
Figure 2. 4: Labour force participation rate by sex and age group	7
Figure 2. 5: Labour force participation rate by District.....	8
Figure 3. 1: Status in employment at main job	9
Figure 3. 2: Employed population by sector of employment.....	10
Figure 3. 3: Share of employment by broad branch of economic activity	12
Figure 3. 4: Top twelve disaggregated branches of economic activity of employed persons at main job (In Thousands)	13
Figure 3. 5: Top twelve disaggregated occupations of employed persons at main job (In Thousands)	15
Figure 3. 6: Composition of non-agriculture informal sector employment by sex and urban/rural area	17
Figure 3. 7: Usual and actual hours of work of employed persons at all jobs	19
Figure 3. 8: Average hourly cash income from employment of employees at main job by broad branch of economic activity (RWF per hour)	22
Figure 4. 1: Unemployment rate by sex, age group and educational attainment.....	26
Figure 4. 2: Unemployment rate by educational attainment	26
Figure 4. 3: Composition of labour underutilization	28
Figure 4. 4: Composite measure of labour underutilization by sex, urban/rural area , age group and educational attainment	29
Figure 4. 5: Labour underutilisation rate by District	31
Figure 5. 1: Proportion of working age population outside labour force by province	33
Figure 5. 2: Persons outside the labour force by self-reported status.....	34
Figure 5. 3: Past work experience and reason for stopping last employment of persons outside the labour force	36
Figure 6. 1: Labour force participation by marital status and sex	37
Figure 7. 1: Youth (16-30 years old) labour force participation rate and unemployment rate by educational attainment.....	40

Figure 7. 2: Youth not in employment and not in education or training	41
Figure 7. 3: Proportion of Youth (16-30) Neither in Employment nor in Education or Training (NEET) by District.....	42
Figure 8. 1: Percentage distribution of self-reported benefits after completing vocational training three years after completion	45
Figure 8. 2: Distribution of TVT graduates in last three years by duration of training.....	46
Figure 9. 1: Proportion of working age group involved in agriculture employment by level of education attained.....	48
Figure 9. 2: Proportion of working age group involved in subsistence agriculture by level of education attained.....	49
Figure 9. 3: Percentage distribution of the use of household production	50
Figure 9. 4: Participation of paid workers in exclusive subsistence agriculture	51
Figure 9. 5: Workforce framework	52
Figure 10. 1: Proportion of working age population who are own use producers by sex.....	55
Figure 10. 2: Average number of hours spent in own use production activities by type and sex	55
Figure 10. 3: Proportion of working age population engaged in Own use production of services by residential area and activity.....	56
Figure 11. 1: Size of the migrant and migrant workers populations	57
Figure 11. 2: Labour force status of internal and international migrants.....	59
Figure 11. 3: Employed migrant workers by branch of economic activity.....	61
Figure 12. 1: Main labour force indicators: Working age persons with disabilities versus working age population at large.....	63

List of statistical tables in Annex C

Table C. 1 Summary labour force indicators, RLFS 2019.....	90
Table C. 2 Population by sex and age group, RLFS 2019.....	91
Table C. 3 Households by household size, sex of head of household and urban/rural area, RLFS 2019	92
Table C. 4 Disabled persons by sex, age group, urban/rural area and type of disability, RLFS 2019	92
Table C. 5 Disabled working age persons by labour force status and type of disability, RLFS 2019	93
Table C. 6 Population 16 years old and over by education status and urban/rural area, RLFS 2019	93
Table C. 7 Population 16 years old and over by sex, level of educational attainment and urban/rural area, RLFS 2019	93
Table C. 8 Population 16 years old and over with respective field of education by sex, urban/rural area, RLFS 2019	94
Table C. 9 Population 16 years old and over in trade/attended or training courses by sex, duration of training, and urban/rural area, RLFS 2019.....	94
Table C. 10 Population 16 years old in/attended trade and technical training by sex, technical skills, and urban/rural area, RLFS 2019	95
Table C. 11 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, RLFS 2019	97
Table C. 12 Population 16 years old and over by labour force status, sex, age group, and urban/rural area, RLFS 2019	98
Table C. 13 Population 16 years old and over by labour force status, sex, educational attainment, and urban/rural area, RLFS 2019	99
Table C. 14 Population 16 years old and over by labour force status, sex, marital status, and urban/rural area, RLFS 2019.....	99
Table C. 15 Employed population by sex, age group, and urban/rural area, RLFS 2019.....	100
Table C. 16 Employed population by sex, occupation group, and urban/rural area, RLFS 2019	101
Table C. 17 Employed population by sex, current education attendance, and urban/rural area, RLFS 2019	101
Table C. 18 Employed population by sex, educational attainment, and urban/rural area, RLFS 2019....	102
Table C. 19 Employed population by sex, occupation group and level of educational attainment, RLFS 2019.....	102
Table C. 20 Employed population by sex, branch of economic activity, and urban/rural area, RLFS 2019	104
Table C. 21 Employed population by sex, branch of economic activity and level of educational attainment, RLFS 2019.....	105
Table C. 22 Employed population by sex, status in employment, and urban/rural area, RLFS 2019	107
Table C. 23 Employed population by sex, hours usually worked per week at all jobs, and urban/rural area, RLFS 2019.....	107
Table C. 24 Employees by sex, duration of employment contract at main job and urban/rural area, RLFS 2019.....	108
Table C. 25 Employed population by sex, formal/informal sector employment, status in employment at main job and urban/rural area, RLFS 2019	109

Table C. 26 Formal and informal employment by sex, branch of economic activity, RLFS 2019	110
Table C. 27 Formal and informal Sector by sex, branch of economic activity, RLFS 2019	111
Table C. 28 Average number of hours usually worked per week at main job by sex, branch of economic activity, urban/rural area, RLFS 2019	112
Table C. 29 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, RLFS 2019.....	113
Table C. 30 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, RLFS 2019.....	114
Table C. 31 Size distribution of monthly cash income from employment of employees at main job by sex and urban/rural area, RLFS 2019	115
Table C. 32 Median/Mean cash income from employment of employees at main job by Quintiles, sex and urban/rural area, RLFS 2019	115
Table C. 33 Youth and Young Population by sex, and residential area, RLFS 2019	116
Table C. 34 Young population 16–30 years old by sex, level of educational attainment, Labour force status and urban/rural area, RLFS 2019	116
Table C. 35 Youth Unemployed by sex, duration of seeking employment, and urban/rural area, RLFS 2019	117
Table C. 36 Young Unemployed by sex, duration of seeking employment, and urban/rural area, RLFS 2019.....	118
Table C. 37 Youth not in employment and not currently in education or training by sex, age group, and urban/rural area, RLFS 2019	118
Table C. 38 Unemployed population by sex, broad age group and urban/rural area, RLFS 2019	119
Table C. 39 Unemployed population by sex, level of educational, and urban/rural area, RLFS 2019	119
Table C. 40 Unemployed population (who looked for a job) by sex, method of seeking employment, and urban/rural area, RLFS 2019	120
Table C. 41 Unemployed population (who looked for a job) by sex, duration of seeking employment, and urban/rural area, RLFS 2019	121
Table C. 42 Time related under employment by age group sex and area of residence, RLFS 2019	121
Table C. 43 Time-related underemployed persons by sex, main branch of economic activity and urban-rural areas, RLFS 2019	122
Table C. 44 Population outside the labour force by sex, degree of labour market attachment, and urban/rural area, RLFS 2019.....	123
Table C. 45 Population outside the labour force by sex, main source of livelihood, and urban/rural area, RLFS 2019	123
Table C. 46 Working age population, by reported situation status	124
Table C. 47 Average time spent in own-use production work by sex, type of own-use production and urban/rural area, RLFS 2019.....	124
Table C. 48 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, RLFS 2019	126
Table C. 49 Average time spent per week on own-use provision of services of working age population by sex, age group and urban/rural area, RLFS 2019	126
Table C. 50 Internal and international migrants by labour force status, sex, urban/rural area, RLFS 2019	127

Table C. 51 Internal and international migrants by labour force status and main reason for migration, RLFS 2019	128
Table C. 52 Migrant workers by sex, urban/rural area, prior place of residence and branch of economic activity, RLFS 2019.....	130
Table C. 53 Summary labour force indicators by District, RLFS 2019	131
Table C. 54 Employment by District and broad branches of economic activity, according to sex, RLFS 2019	131
Table C. 55: Distribution of population by activity status, according to district	133
Table C. 56: Labour market indicators and educational type (general and Technical), RLFS 2019	134
Table C. 57: ICT indicators	134

Chapter 1: Main labour force indicators

The results of main labour force indicators using combined LFS quarterly rounds conducted in 2019 are shown in Table 1.1 below. According to these results, among the 7,232,000 persons 16 years old and over who were living in regular households, about 3,863,000 persons were in the labour force, either employed (3,274,000) or unemployed (589,000). The remainder 3,369,000 persons were outside the labour force including about 1,693,000 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 53.4 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 62.8 percent, which is higher than the female's (45.1 percent). At the same time, the labour force participation rate in urban areas (67.0 percent) was higher than the rate in rural areas (49.9 percent).

Table 1. 1: Main labour force indicators, LFS_2019

Numbers in ,000	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Population 16 years old and over	7,232	3,394	3,837	1,479	5,752	3,251	3,981
Labour force	3,863	2,133	1,730	991	2,872	1,557	2,305
- Employed	3,274	1,838	1,436	839	2,435	1,248	2,025
- Unemployed	589	295	294	152	437	309	280
Outside labour force	3,369	1,261	2,107	489	2,880	1,693	1,676
Labour underutilization	3,009	1,271	1,738	449	2,560	1,871	1,138
- Unemployed	589	295	294	152	437	309	280
- Time-related underemployed	878	431	447	101	777	508	370
- Potential labour force	1,543	545	998	196	1,346	1,054	488
Labour force participation rate (%)	53.4	62.8	45.1	67	49.9	47.9	57.9
Employment-to-population ratio (%)	45.3	54.2	37.4	56.7	42.3	38.4	50.9
Time related underemployment rate (%)	27.1	23	32.1	13.2	31.6	40.3	17.9
LU1 - Unemployment rate (%)	15.2	13.8	17	15.3	15.2	19.9	12.1
LU2 - Combined rate of unemployment and time-related underemployment (%)	38.0	33.8	43.2	26.3	41.9	51.8	27.6
LU3-Combined rate of unemployment and potential labour force (%)	39.0	31.5	46.4	29.5	41.6	51.2	26.5
LU4 - Composite measure of labour underutilization (%)	55.7	47.4	63.7	37.8	60.7	71.6	40.7

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

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 45.3 percent according to the LFS 2019 results. The employment-to-population ratio was higher among men (54.2 percent) than women (37.4 percent), and higher in urban areas (56.7 percent) than in rural areas (42.3 percent).

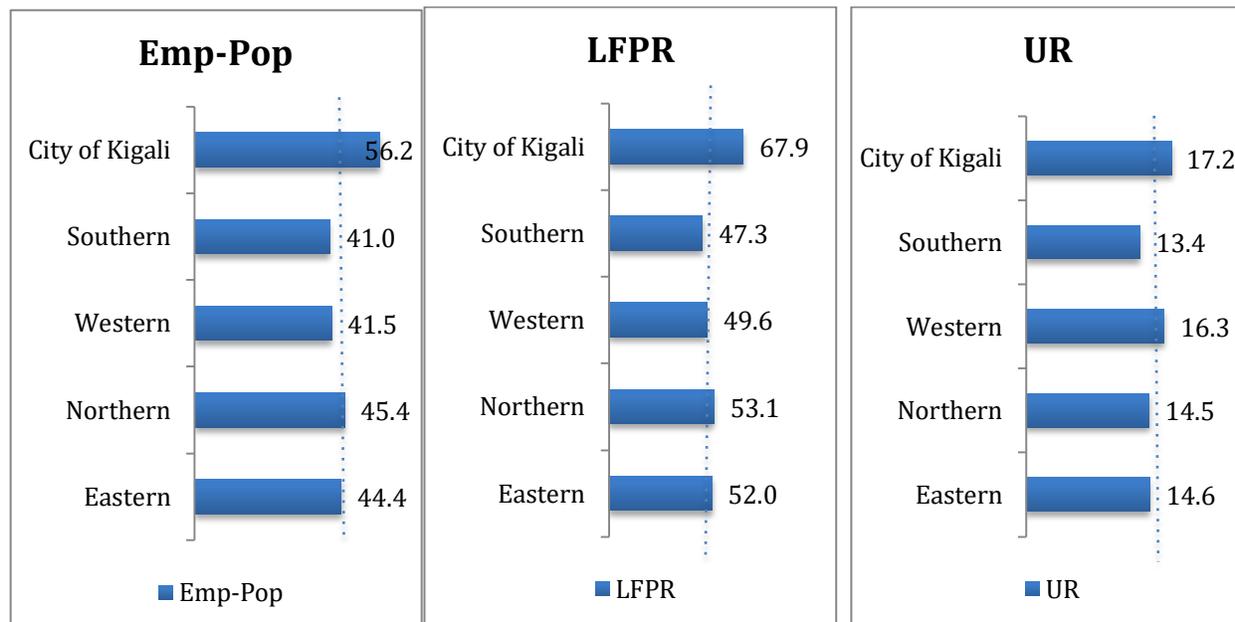
The unemployment rate represents the percentage of the labour force that is unemployed. The rate shown in Table 1.1 as LU1 stood at 15.2 percent, indicating that roughly among seven persons in labour force, there was one person unemployed. The female unemployment rate (17.0 percent) was higher than the male rate (13.8 percent) and the unemployment rate was almost the same in urban and rural areas (around 15.2 percent).

The unemployment rate is not the only indicator of the unmet needs for employment. Other indicators combine 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 2019 results, the combined rate of unemployment and time-related underemployment (LU2) was 38.0 percent, more than two times higher than the unemployment rate. The combined rate of unemployment and potential labour force (LU3) was 39.0 percent. The composite measure of labour underutilization (LU4) that combines unemployment, time-related underemployment and potential labour force was 55.7 percent indicating that more than half of the extended labour force was affected by some form of labour underutilization. In general, labour underutilization affected female (64.7 percent) workers more than male workers (37.8 percent), and rural areas (60.7 percent) more than urban areas (37.8 percent).

Labour market situation varies from one part of the country to another. Figure 1.1 shows the main labour force indicators for the five Provinces of Rwanda. More detailed regional data are presented in the Statistical Annex C. It is observed that the labour force participation rate in 2019 was significantly higher than the rate at national level in the City of Kigali (67.9 percent), around the national average in Northern Province (53.1 percent) and in the Eastern Province (52.0 percent), while it was below the national average in the Western Province (49.6 percent), and in the Southern Province (47.3 percent).

Figure 1. 1: Regional variations of Labour force participation rate, Employment-to-population ratio and Unemployment rate



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

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 (56.2 per cent) and about average in the Northern and Eastern province (45.4 and 44.4percent respectively) and lower than the national average in the Southern Province 41.0 percent, and in the Western Province (41.5 percent).

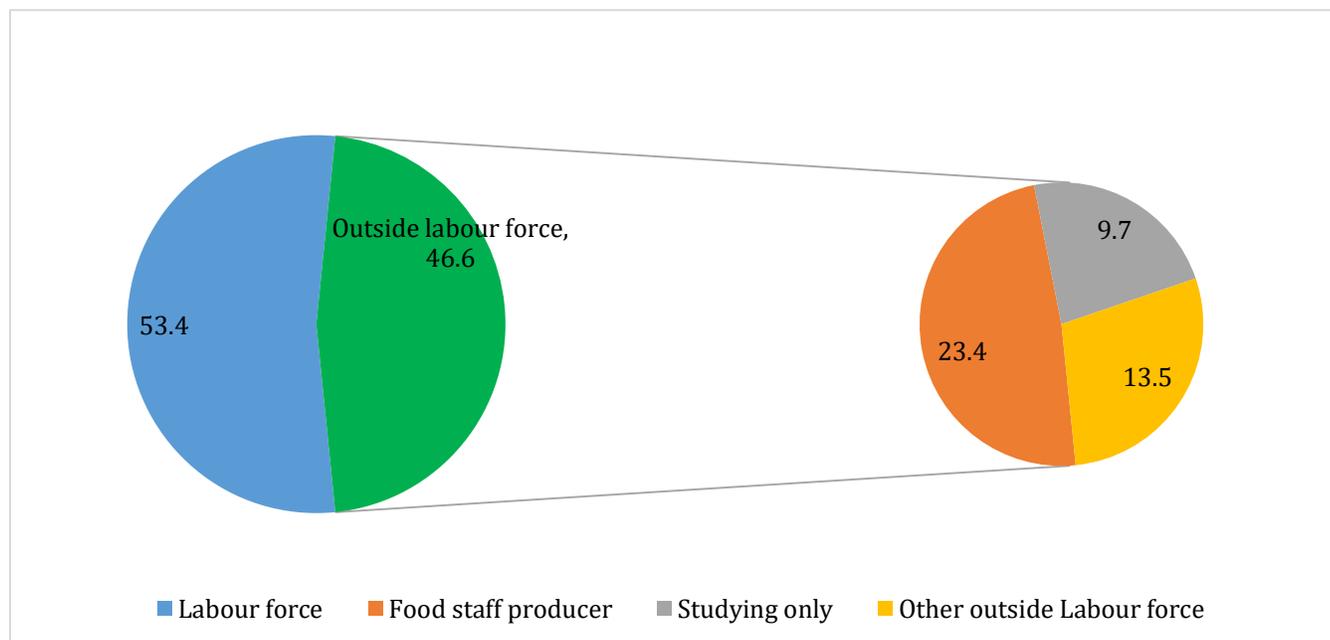
The unemployment rate shows a different pattern, it was the lowest in the Southern Province (13.3 percent), followed by the Northern Province (14.0 percent), in Eastern Province, (14.5 percent), and above average in the City of Kigali (17.3 percent) and in the Western Province (16.3 percent).

Overall, the regional pattern that emerges indicates significantly higher labour market activity in the City of Kigali in the form of employment as well as in the form of unemployment. The Southern Province shows the presence of the lowest employment activities and the lowest unemployment rate, and this may be due to the presence of relatively higher number of people outside labour force in this Province.

Chapter 2: Working age population characteristics and Labour force participation

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. Figure 2.1 shows the working age population by its components. In Rwanda, working age population is defined as those who are aged 16 years old or above. According to presented results, the population in labour force represents 53.4 percent of the working age population. The remainder of the population is outside labour force (46.6 percent) of which 23.4 percent are in subsistence foodstuff production, 9.7 percent studying only and 13.5 percent as other outside labour force such as elderly people, disabled, discouraged job seekers etc.

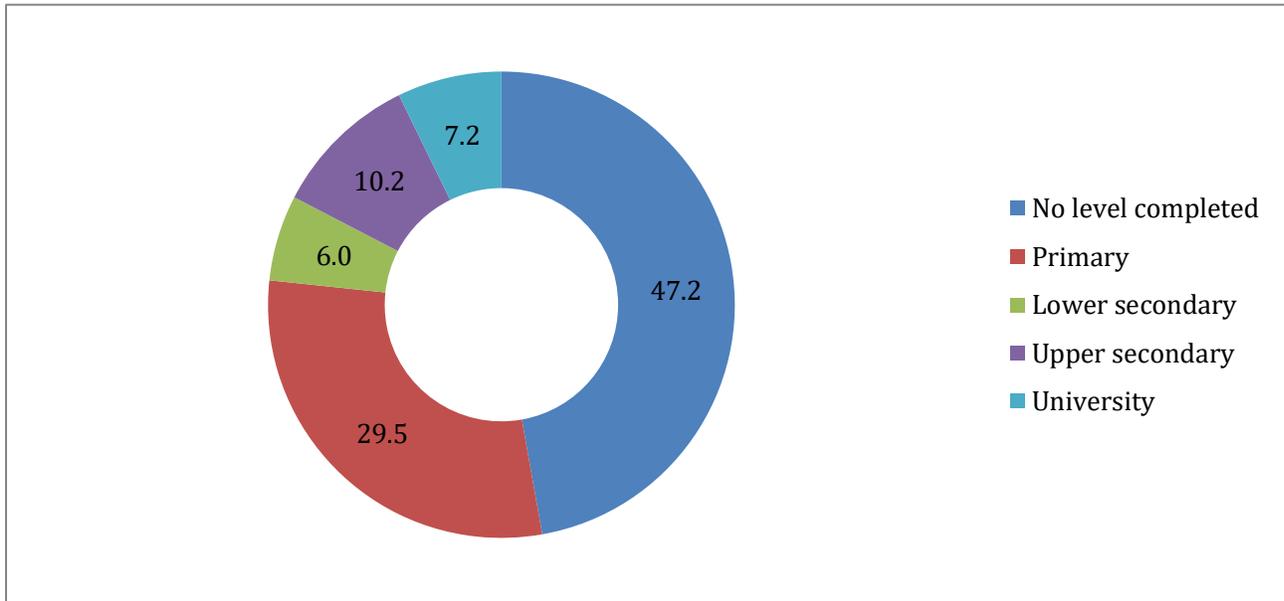
Figure 2. 1: Working age population status (16 years and above)



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The skill level of the labour force may be assessed by the educational attainment of the labour force participants. Figure 2.3 presents the distribution of the labour force by educational attainment. There is a substantial number of person in labour force who have not completed any level of education (47.2 Percent). The share of the labour force with lower and upper secondary education was 6.0 percent and 10.2 percent respectively; while the proportion of university graduates was 7.2 percent.

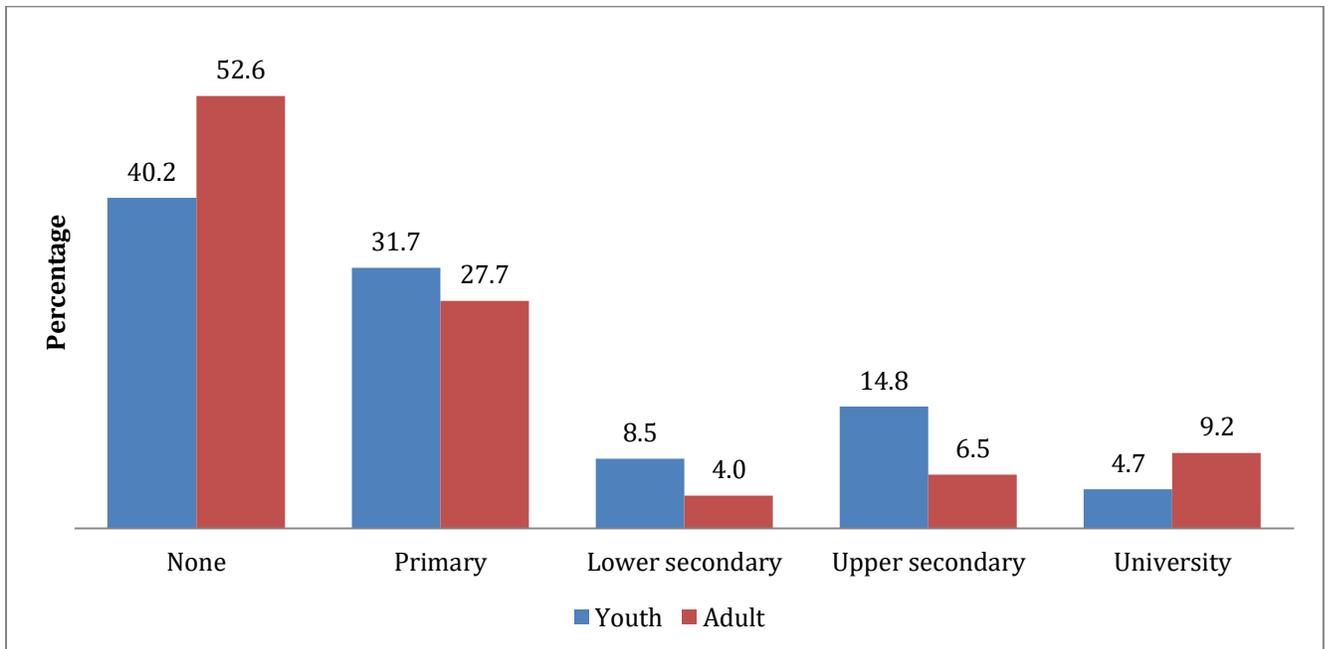
Figure 2. 2: Percentage distribution of labour force by educational attainment



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The proportion of youth is higher than the one for adult in three level of education attainment (Primary, Lower secondary and upper secondary). About 31.9 percent of youth in labour force has Primary education against 27.7 percent among adult and for upper secondary, the proportion of youth is 14.8 percent against 6.5 percent for adults. Dissimilarly, the proportion of youth is lower than the one of adults among those who have not completed any level of education as well as among university graduates.

Figure 2. 3: Distribution of labour force by education attainment among young and adult population

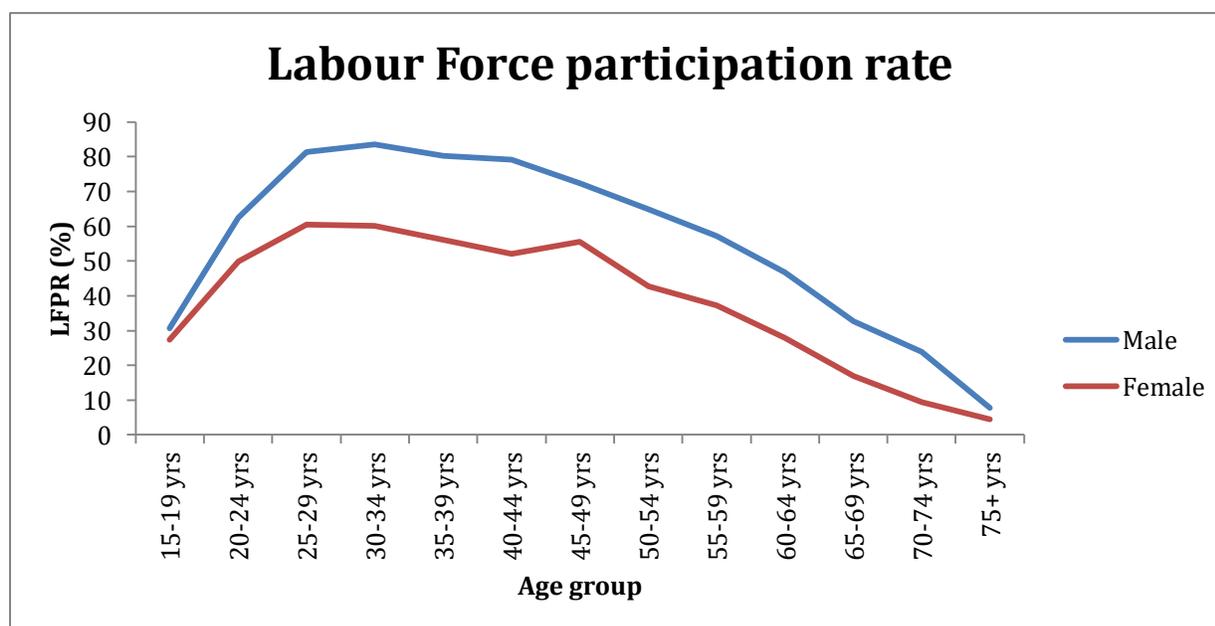


Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The labour force participation rate, i.e., the ratio of the labour force 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 2.4.

Like most of the countries, 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 labour force participation rate decreases sharply for both men and women from 50-year-old, as people leave and retire from the labour market at older ages. The age from which more than a half of working age population is out of labour force is 60 years old for males and 50 years old for females.

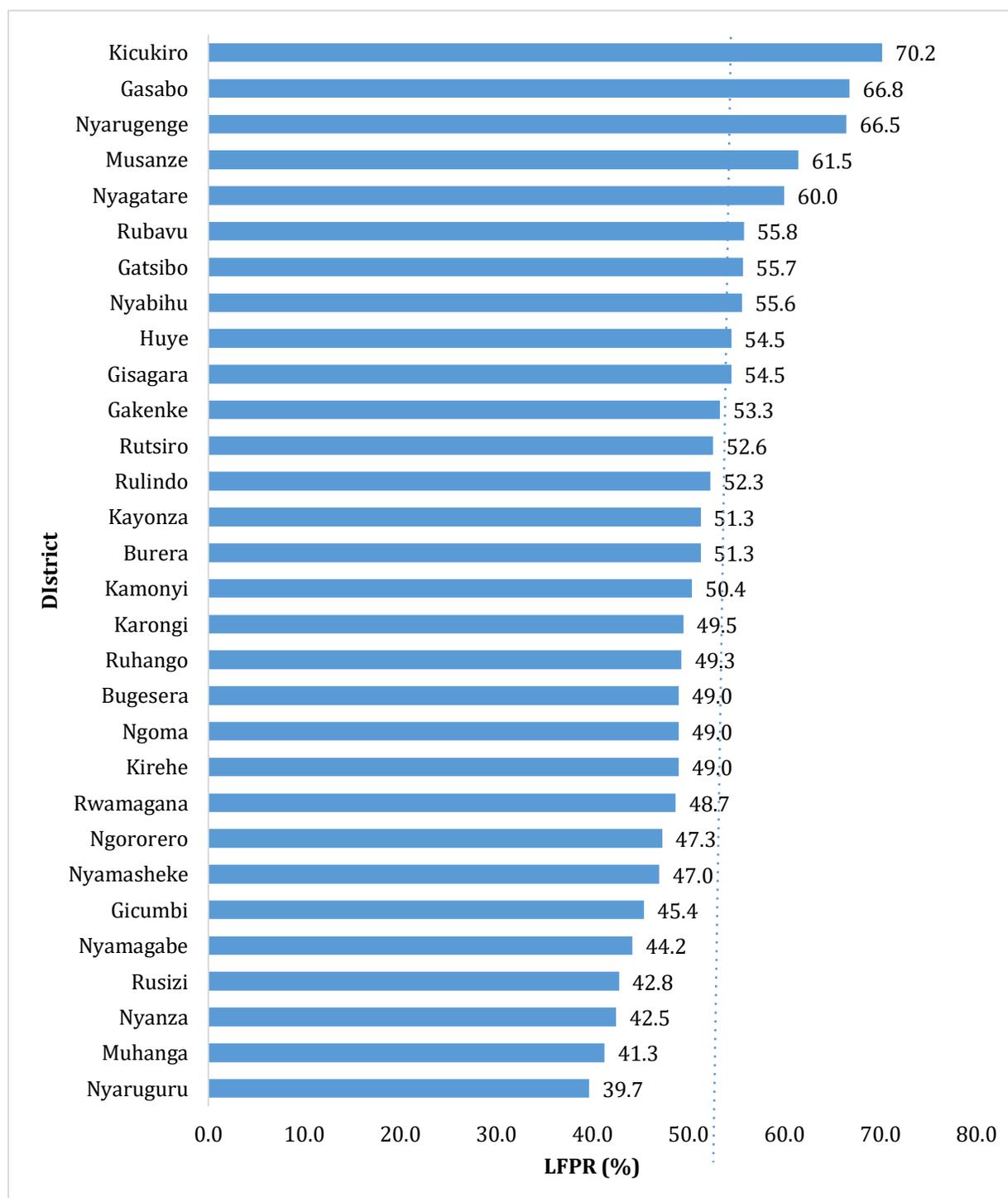
Figure 2. 4: Labour force participation rate by sex and age group



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Among the districts of Rwanda, the Labour force participation rate is higher in the Districts of the City of Kigali (Highest in Kicukiro with 70.7 percent, Gasabo with 66.8 percent, and Nyarugenge with 66.5 percent) and in Nyagatare (60.1 percent). Conversely, the labour force participation rate was lower in in Nyaruguru(39.7 percent, Muhanga(41.3 percent), Nyanza(42.5 percent), Rusizi (42.8 percent) and Nyamagabe(44.2 percent).

Figure 2. 5: Labour force participation rate by District



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Chapter 3: Employment

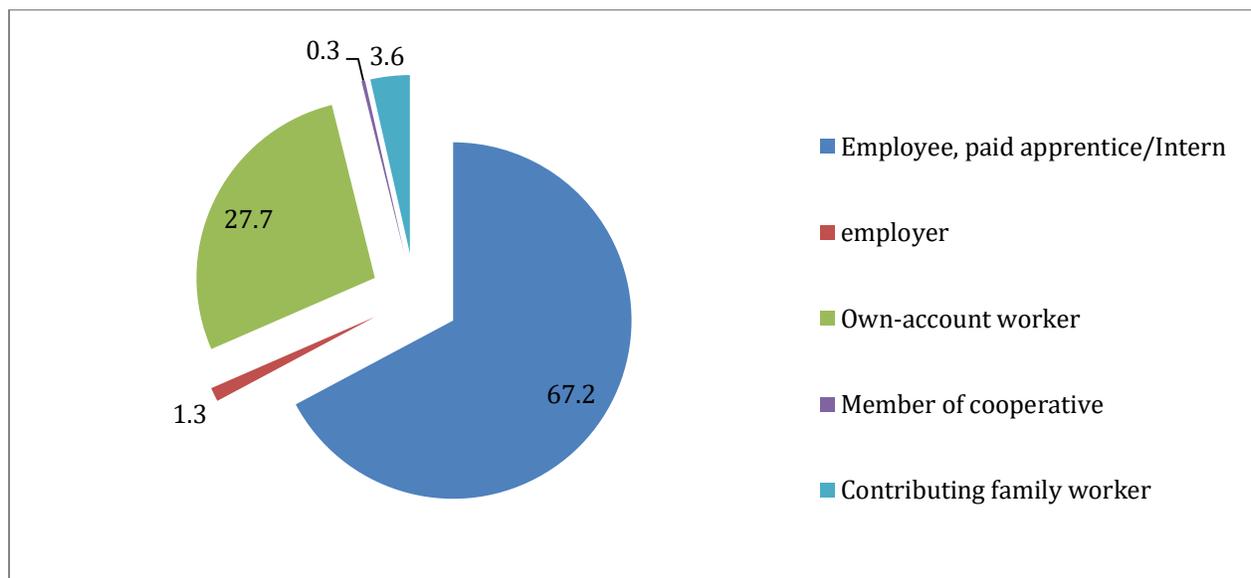
Aggregate employment generally increases with growing population. Therefore, the ratio of employment to the working age population is an important indicator of the capacity of the economy to provide employment to a growing population. In 2019, the employment-to-population ratio was 45.3 percent; slightly lower than the one of 2018 which stood at 46.0 percent.

3.1 Status in employment

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.

The International Standard Classification of Status in Employment (ICSE-1993) identifies five main categories of persons with respect to their status in employment.⁴ Figure 3.1 shows the composition of the employed population by status in employment in main job. Almost two-third of the employed population (67.2 percent) were employees or paid apprentices or trainees. The share of own-account workers was (27.7 percent), followed by contributing family workers (3.6 percent), employers (1.3 percent) and members of producers' cooperatives (0.3 percent).

Figure 3. 1: Status in employment at main job



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

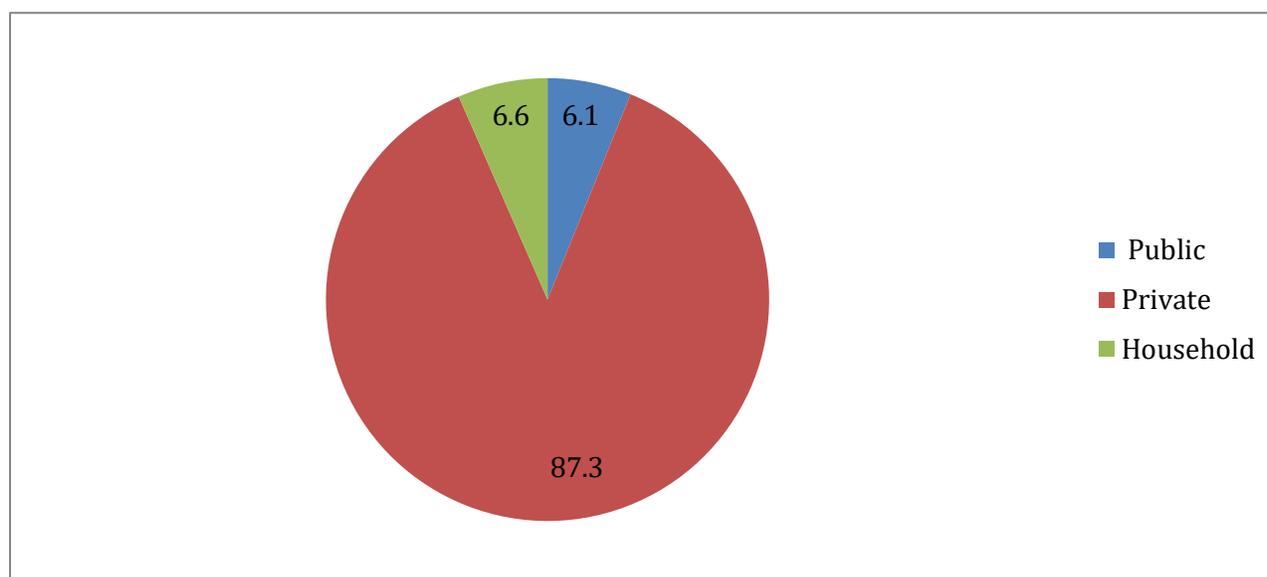
The data disaggregated by gender show that there is a significant difference between males and females who were employed in dependent jobs as employees. The percentage of female employed as employees was 66.2 percent against 68.0 percent among males while the percentage of females

⁴ILO, *International Classification of Status in Employment, ICSE-93*, Fifteenth International Conference of Labour Statisticians, Geneva, <http://laborsta.ilo.org>.

employed in dependent jobs as contributing family workers was higher (6.6 percent) compared to 1.2 percent among males.

The distribution of the employed population by sector of employment reveals that the majority of employed persons were in private sector (87.3 percent) followed by household as employer and Public sector that employ 6.1 percent and 6.6 percent respectively. The private sector also includes those who were engaged in the cooperatives, and in international/ local non-governmental organizations (less than 1 percent each).

Figure 3. 2: Employed population by sector of employment



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

3.2 Branches of economic activity and occupations

3.2.1 Branches of economic activity

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 3.1 illustrates the distribution of the employed population by branch of economic activity in main job. The survey result show that agriculture employment was by far the most frequent branch of economic activity, comprising 37.4 percent of employment. The branch of economic activity with the next highest number of employed persons was trade (14.8 percent) followed by construction (9.6 percent), manufacturing (6.4 percent), activities of households as employers of domestic personnel (6.3 percent) and Transportation and storage with 5.2 percent. The other branches of economic activity comprised each less than five percent of total employment.

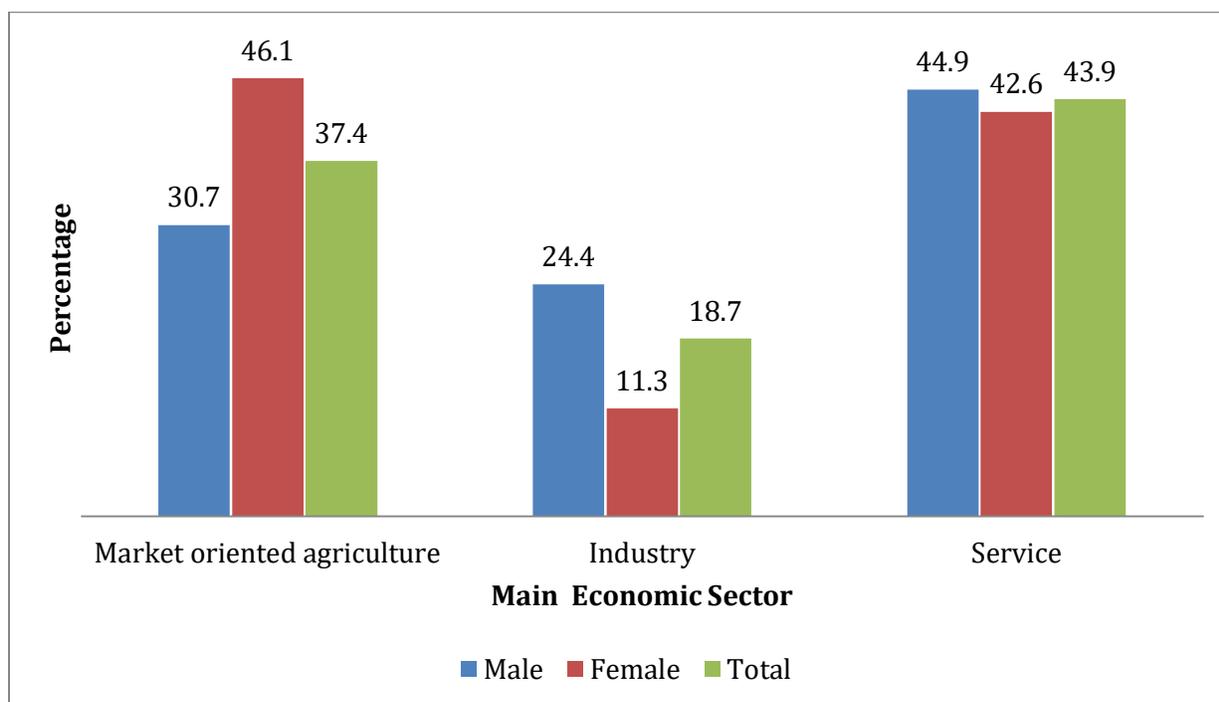
Table 3. 1: Employed persons by branch of economic activity in main job

Branch of economic activity	Number	%
Total	3,273,921	100
Agriculture, forestry and fishing	1,225,151	37.4
Mining and quarrying	71,205	2.2
Manufacturing	208,956	6.4
Electricity, gas, steam and air conditioning supply	9,237	0.3
Water supply, sewerage and waste management	7,550	0.2
Construction	315,022	9.6
Wholesale, retail trade, repair of motor vehicles, motorcycles	485,871	14.8
Transportation and storage	170,913	5.2
Accommodation and food service activities	96,982	3.0
Information and communication	11,515	0.4
Financial and insurance activities	35,051	1.1
Real estate activities	4,260	0.1
Professional, scientific and technical activities	27,111	0.8
Administrative and support service activities	60,099	1.8
Public administration and defense	68,189	2.1
Education	118,626	3.6
Human health and social work activities	46,020	1.4
Arts, entertainment and recreation	11,371	0.4
Other service activities	72,319	2.2
Activities of households as employers	207,927	6.4
Activities of extraterritorial organizations and bodies	20,546	0.6

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The grouping of different branch of economic activities in broad sectors of economic activity as presented in Figure 3.3 shows that services sector employed 43.9 percent of employed person while the share of industry in the total employment was 18.7 percent. Female are more likely to be engaged in market oriented agriculture than males while in industry and services, the proportion among males was relatively higher than the one among females.

Figure 3. 3: Share of employment by broad branch of economic activity

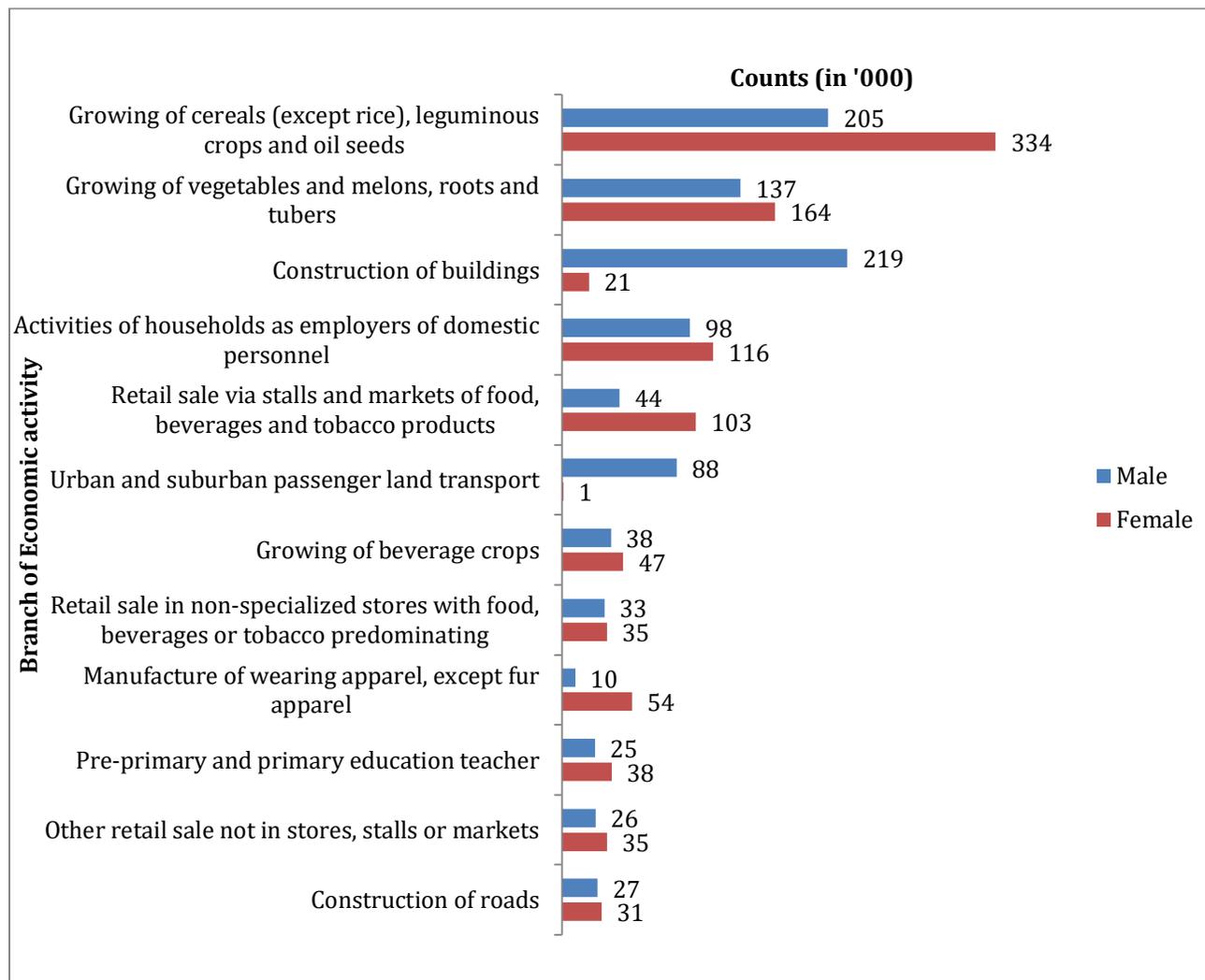


Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

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.

Figure 3.4 shows the distribution of number of employed population by sex among the top twelve disaggregated levels of branches of economic activity. It is worth important to note that ten out of the top twelve economic activities were dominated by female workers, while men dominated in two economic activities with remarkable difference in construction of buildings. However, most of the economic activities dominated by females are related to agriculture and most of those females are agriculture laborers or retail seller.

Figure 3. 4: Top twelve disaggregated branches of economic activity of employed persons at main job (In Thousands)



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

3.2.2 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 3.2 presents the distribution of the employed population by occupation category and sex in the main job. The occupation category with the highest frequency (52.3 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 3. 2: Employed persons by occupation and sex in main job

Major occupation group	Male	Female	Total	%
Total	1,838,353	1,435,568	3,273,921	100
Legislators, Managers and Senior Officials	32,273	12,937	45,211	1.4
Professionals	114,789	83,236	198,024	6.1
Technicians and Associate Professionals	33,119	17,069	50,189	1.5
Clerical Support Workers	13,842	19,979	33,821	1.0
Service and Sales Workers	326,436	322,306	648,742	19.8
Skilled Agricultural, Forestry and Fishery Workers	119,433	100,122	219,555	6.7
Craft and Related Trades Workers	192,897	80,005	272,902	8.3
Plant and Machine Operators and Assemblers	95,623	2,395	98,018	3.0
Elementary Occupations	909,940	797,519	1,707,459	52.2

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The occupation category with the second highest frequency was services and sales workers (19.8 percent), followed by craft and related trades workers (8.3 percent), skilled Agricultural (6.7 percent) and professionals (6.1 percent). The remaining occupation categories each covered 3 percent or less of the employed population. Most of the main occupation categories were male dominated with a huge difference among plant and machine operators, except for clerical and support workers where female dominated.

Table 3.3 below portrays the distribution of occupation according to the attained level of education. The results show that, holders of primary education or lower are predominantly employed in elementary occupations while University graduates are more likely to be engaged as professionals. It is observed that some of the university graduates are engaged in occupation categories which normally require lower level of skills than their qualifications. Holders of secondary level of education are predominantly employed as Service and sales workers or in elementary occupations.

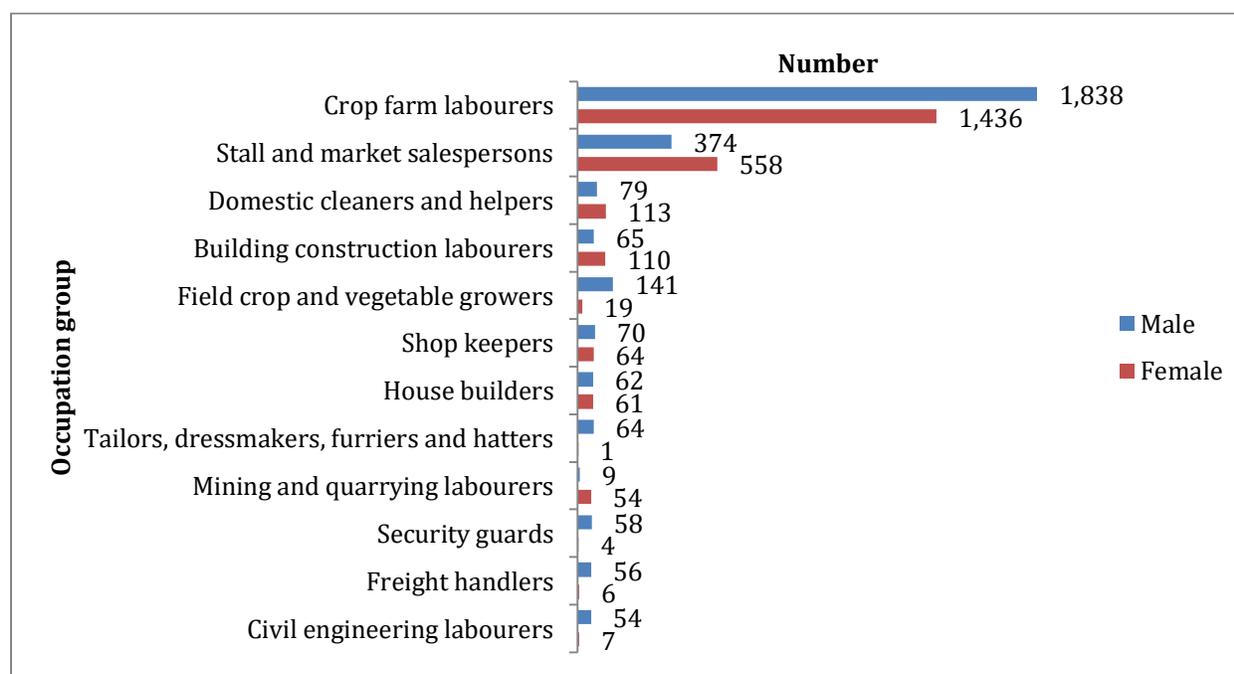
Table 3. 3: Distribution of employed population by occupation according to the level of education

ISCO High level	Primary or lower	Secondary(Lower and upper)	University	Total
Legislators, Managers and Senior Officials	0.0	0.8	14.2	1.4
Professionals	0.5	10.5	42.9	6.1
Technicians and Associate Professionals	0.2	2.1	11.4	1.5
Clerical Support Workers	0.1	1.5	8.2	1.0
Service and Sales Workers	17.3	31.5	15.4	19.8
Skilled Agricultural, Forestry and Fishery Workers	7.8	4.9	1.3	6.7
Craft and Related Trades Workers	8.0	12.0	3.4	8.3
Plant and Machine Operators and Assemblers	2.3	6.2	2.1	3.0
Elementary Occupations	63.8	30.6	1.1	52.2
Total	100.0	100.0	100.0	100.0

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Figure 3.5 lists the top twelve disaggregated occupations and compares their frequency among male and female employed persons. On one hand, it is observed that there were more women than men employed as crop farm labourers, domestic cleaners and helpers, stall and market sales person and tailors, dressmakers, furriers and hatters. On the other hand, there were more men than women employed as building construction labourers, house builders, mining and quarrying, security guard and freight handlers. The number of female is much more dominant among persons employed in related agricultural work. The remaining had more or less same number of male and female.

Figure 3. 5: Top twelve disaggregated occupations of employed persons at main job (In Thousands)



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

3.3 Informal sector and informal employment

3.3.1: Employment in Informal sector

The concept of informal sector is broadly characterized as unincorporated enterprises owned by households.⁵ 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 unregistered⁶ private business enterprises that did not keep written records of accounts. Workers engaged by households were excluded from the classification of employment in the informal sector.

⁵ILO, *Resolution on the measurement of employment in the informal sector*, Fifteenth International Conference of Labour Statisticians (ICLS), Geneva, 1993.

⁶ Unregistration meant not registered with the Rwanda Revenue Authority or not paying PAYE/TPR.

The results of the survey show that there were 2,480,363 employed persons in the informal sector, corresponding to 75.8 percent of total employment. The employed persons in the informal sector were mostly male (55.5 percent) who were mostly employees or paid apprentices (59.7 percent) or own-account workers (36.9 percent).

Employment in the informal sector was mostly in market oriented agriculture (47.9percent), followed by whole sale and retail trade, repair of motor vehicles and motorcycles (17.9 percent), Construction (11.0 percent) , manufacturing (6.6 percent) and in Transport and storage (6.1 percent)

3.3.2 Informal employment

Parallel to the concept of employment in the informal sector, there is a 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.⁷ In 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 to 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 LFS 2019, there were in total 2,931,494 persons with informal employment at main job, constituting almost 89.5 percent of total employment. Informal employment jobs were held mostly by male workers (55.3 percent), however, the informal employment rate was higher among females (91.1 percent) as compared to males (88.3 percent)

Table 3.4 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. 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.

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

Table 3. 4: Classification of Production units and informal or formal job

Classification of production units	Classification of jobs		
	Formal employment	Informal employment	Total
Informal sector	1,331	2,479,032	2,480,363
Formal sector	340,596	238,264	578,860
Household	500	214,199	214,699
Total	342,426	2,931,494	3,273,920

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

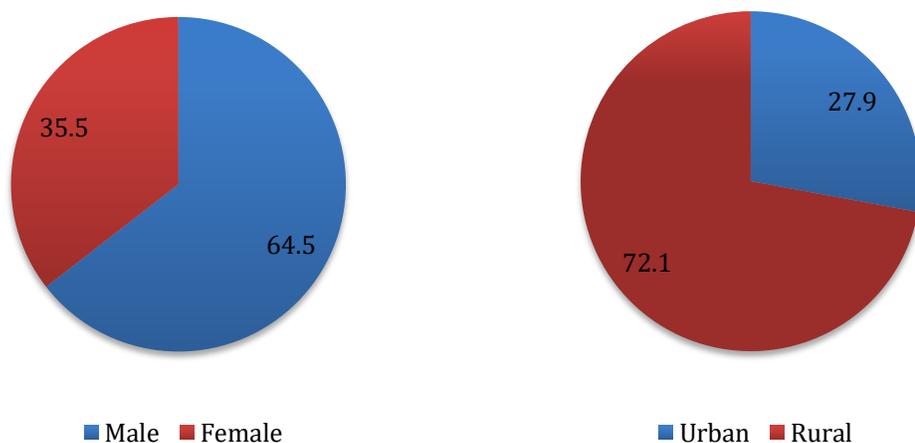
The number of persons with informal employment in the formal sector was 235,250 persons. An example of this category of persons remains the employee with short-term contract without social security contribution by the employer working in a large private corporation or a small enterprise.

3.3.3 Informal sector outside agriculture

The share of the informal sector in non-agriculture employment (70.3 percent) is substantially lower than the corresponding share in total employment (81.1 percent). This implies a 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 composed of own-account workers (55.3 percent) and employees (38.7 percent), the remainder being contributing family workers (4.1 percent), employers (1.5 percent) others having less than 1 percent. The bulk is engaged in services (62.6 percent), particularly in retail trade including shopkeepers, street vendors, and market and stall sales persons.

The following diagrams show 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 (64.5 percent). This is in contrast with the share of men in total informal sector employment (55.6 percent), suggesting that there are relatively fewer men than women engaged in informal agriculture holdings.

Figure 3. 6: Composition of non-agriculture informal sector employment by sex and urban/rural area



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The right panel of the diagram gives the urban-rural breakdown. It shows that more than one-fourth of informal sector employment outside agriculture is urban (27.9 percent), a value higher than the percentage of urban employment in total informal sector, agriculture and non-agriculture combined (16.3 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.

3.4 Working time and income from employment

3.4.1 Working time

The international definition of employment is expansive covering even one hour of work during the reference week. It is thus important to note 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 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 3.5, the average number of hours usually worked per week by employed persons in their main job was 38.8 hours. The corresponding average number of hours actually worked during the reference week was 32.9 hours. Around 80,656 persons representing 2.5 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 15.2 hours per week while the average number of hours actually worked on secondary jobs was 13.2 hours during the reference week.

Table 3. 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	3,273,921	38.7	32.1
Secondary job	81,127	15.3	13.2
All jobs	3,355,048	39.1	33.0

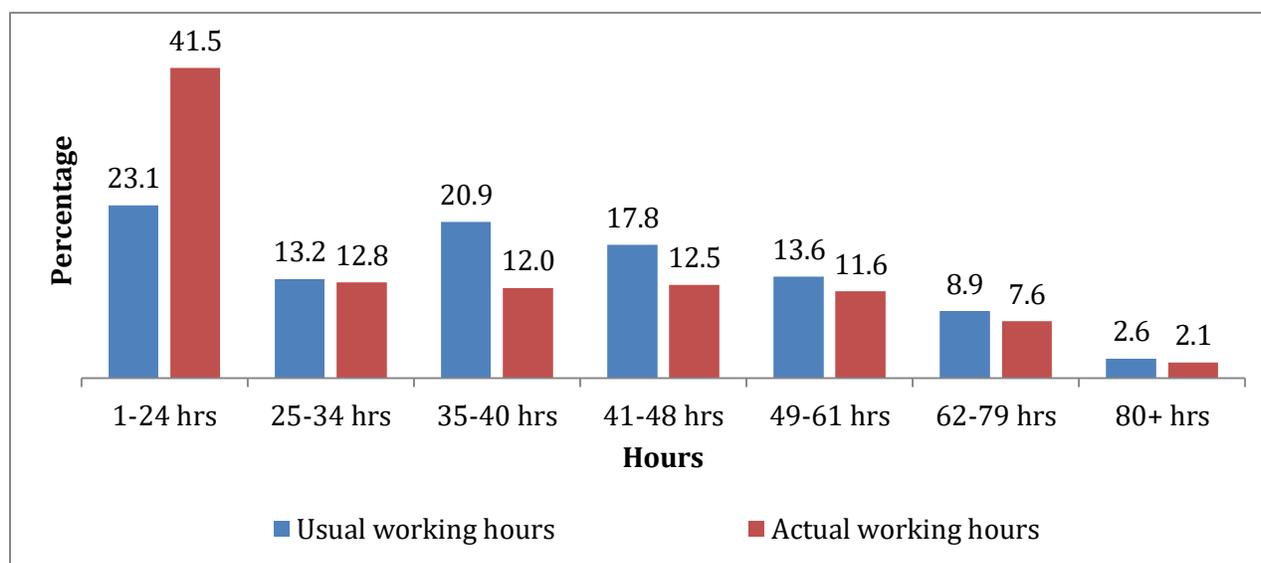
Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

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. Finally,

for 7.5 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 106 million hours.

Figure 3.7 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 36.2 percent measured in terms of usual hours worked and 54.3 percent measured in terms of actual hours of work.

Figure 3. 7: Usual and actual hours of work of employed persons at all jobs



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The percentage of persons working excessive hours (49 or above hours) was about 21.3 percent, when measured in terms of actual hours of work and 25.1 percent when measured in terms of usual hours of work. Excessive hours of work are defined as more than 48 usual hours of work 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 results show that male workers are affected relatively more by excessive hours of work than female workers (30.4 percent for male against 18.2 percent for female).

3.4.2 Income from employment

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-

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

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. 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 analysis of the data is limited 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 3.6 shows the period of coverage of last payment of paid employees at main job. About 42.8 percent of employees reported that their last cash payment covered one month. For another 1.6 percent paid employees, the last payment covered two weeks, 4.9 percent covered one week, and 50.7 percent covered one day. The corresponding median monthly cash payment was 30,000 RWF, the median two-week cash payment was 14,400 RWF, the median one-week cash payment was 5,000 RWF and the median daily cash payment was 800 RWF. There was less than 1 percent who reported to have a yearly income and its median response was 100,000 RWF.

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”.

Table 3. 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	13,908	-	263	-
Month	5,958	30,000	170	30,000
Two weeks	220	14,400	1	4,800
One week	678	5,000	8	2,050
One day	7,047	800	83	700
One year	5	100,000	1	

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Note: Un-weighted numbers and medians

Table 3.7 presents the resulting size distribution of cash monthly income from employment of employees at main job. According to these results, the substantial part of paid employees (41 percent) earn less than 20,000 Rwf per month. The proportion of employees whose monthly income is 100,000RWF or above was 13 percent. The median income from paid employment of employees at main job was about 21,667 RWF per month while the mean monthly income was 57,796 RWF.

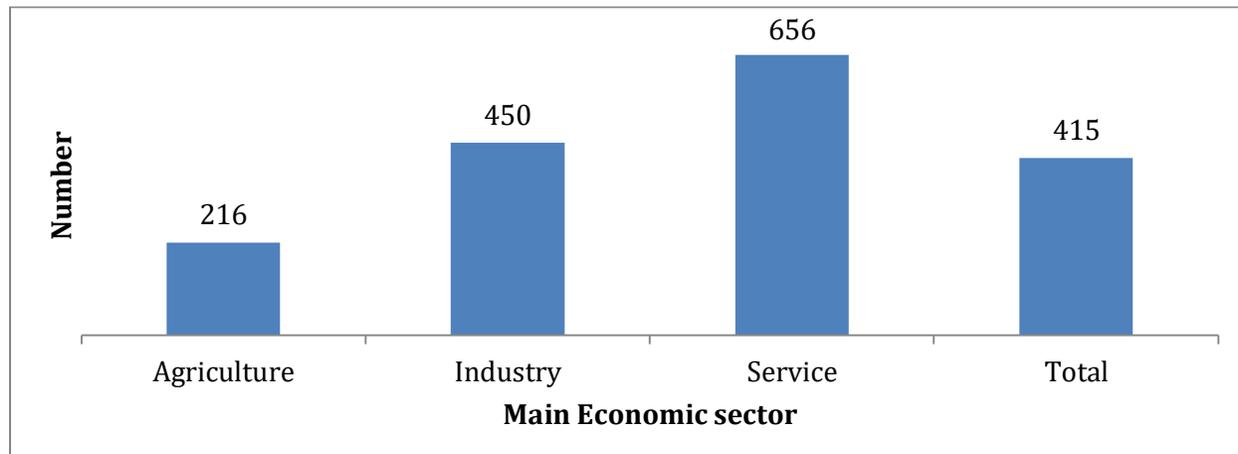
Table 3. 7: Size distribution of harmonized monthly income from employment at main job

Monthly income from employment (RWF)	Number of paid employees	Percentage distribution
Total	2,199,443	100.0%
Less than 20,000 RWF	892,977	40.6%
20,000 – 29,999 RWF	477,869	21.7%
30,000 – 49,999 RWF	275,791	12.5%
50,000 – 99,999 RWF	252,419	11.5%
100,000 RWF and above	281,299	12.8%
Not stated	19,087	0.9%
Median	21,667 RWF	
Average	57,878 RWF	

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

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 3.9. The overall average hourly cash income from employment of employees at main job was 415 RWF per hour, and the corresponding values were 216 RWF per hour in agriculture, 450 RWF per hour in industry and 656 RWF per hour in services.

Figure 3. 8: Average hourly cash income from employment of employees at main job by broad branch of economic activity (RWF per hour)



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

3.5 Job creation

The government of Rwanda through the National strategy for transformation has a target of creating 1,500,000 decent and productive jobs during the period of 7 years from 2017 to 2024 (around 214,000 jobs annually). Due to the absence of International or National guidelines on the measurement of decent and productive created jobs, the methodology used here focuses on the quantity of job gains or losses. The methodology used in the past was the calculation of the difference of employment stock in two consecutive points of data collection, which gives the net change in employment between two data collection periods.

Using the same methodology in the current annual labour force survey, the net change in number of jobs between 2018 and 2019 was calculated based on the stock of main off farm jobs in 2018 and 2019. The results presented in the table below show that off farm jobs increased by 6.4 percent corresponding to the net job gain of 120,978 off farm jobs between 2018 and 2019.

The analysis of job gain and loss according to the main economic sectors illustrates that the most contributed sector in terms of absolute number is transport and storage with about 30,574 additional jobs corresponding to 21.8 percent annual increase followed by accommodation and food service activities with about 27,146 jobs equivalent to 39.2 percent as compared to the previous year, and by Education sector with an estimate of 11,447 job gain, corresponding to an annual increase of 10.8 percent. The remaining sectors registered a job gain or loss less than 10 thousand jobs. Sectors which has registered job loss are; construction (-6,609), Human health and social work activities (-3,029), information and communication (-1,969) and water supply, gas and remediation services (-378).

Table 3. 8: Net change in employment at main Job from 2018 to 2019

Economic activity	2019	2018	Net job changes	Annual change rate
Mining and quarrying	71,205	62,563	8,642	13.8
Manufacturing	196,283	189,665	6,618	3.5
Electricity, gas, steam and air conditioning supply	9,237	6,051	3186	52.7
Water supply, sewerage and waste management	7,448	7,826	-378	-4.8
Construction	313,803	320,412	-6,609	-2.1
Wholesale, retail trade, repair of motor vehicles, motorcycles	484,522	475,828	8,694	1.8
Transportation and storage	170,913	140,339	30,574	21.8
Accommodation and food service activities	96,389	69,243	27,146	39.2
Information and communication	11,515	13,484	-1,969	-14.6
Financial and insurance activities	35,051	28,815	6,236	21.6
Real estate activities	4,078	3,710	368	9.9
Professional, scientific and technical activities	26,905	24,801	2104	8.5
Administrative and support service activities	58,589	50,090	8,499	17.0
Public administration and defense	67,179	59,761	7418	12.4
Education	117,487	106,010	11,477	10.8
Human health and social work activities	45,598	48,627	-3029	-6.2
Arts, entertainment and recreation	11,324	9,586	1738	18.1
Other service activities	71,773	64,604	7,169	11.1
Activities of households as employers	203,718	203,687	31	0.0
Activities of extraterritorial organizations and bodies	20,078	17,015	3,063	18.0
Total	2,023,095	1,902,117	120,978	6.4

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2018-2019

A question on total experience of employed person was asked and the answers were recorded into years of experience. If the answer was 0 year, it indicates that the persons got employed in 12 months prior to the interview or that the accumulated experience in different lapses of employment is lower than a year. However, given that more than the majority of person having 0 year of experience are young people (84 percent), numbers in the table below may be interpreted as entry employment, especially for young people.

The results show that number of recoded person with working experience less than one year in 2019 (223,781 persons) was slightly lower than the number registered in 2018 (229,803 person). Conversely, the reported number in 2017(84,660) was substantially lower than the one reported in 2018. The economic activities which offered relatively high number of employment opportunities to young people were households as employer, agriculture, trade, construction and manufacturing.

Table 3. 9: Distribution of employed persons with less than 1 year of total experience by economic activity, according to the year of interview

Economic activity	2017	2018	2019
Agriculture forestry and fishing	13,358	48,850	48,052
Mining and quarrying	1,036	5,472	4,397
Manufacturing	3,135	17,967	16,564
Electricity gas steam and air condition	291	721	877
Water supply, gas and remediation service	623	721	267
Construction	8,342	28,891	21,773
Whole sale and retail trade; repair of motor cycle and motor vehicle	19,923	41,073	36,914
Transportation and storage	2,514	8,071	8,473
Accommodation and food service activities	4,296	5,325	8,180
Information and communication	945	1,072	442
Financial and insurance activities	409	1,437	2,670
Real estate activities			371
Professional, scientific and technical activities	1,163	1,216	1,776
Administrative and support activities	1,070	3,152	5,568
Public administration and defense; compulsory social security	1,150	1,947	1,841
Education	1,728	6,071	6,072
Human health and social work activities	832	2,310	809
Arts, entertainment and recreation	99	176	989
Other services	3,172	4,320	3,412
Activities of households as employers	19,817	50,681	53,298
Activities of extraterritorial organization	757	329	1,039
Total	84,660	229,803	223,781

Chapter 4: Unemployment and labour underutilization

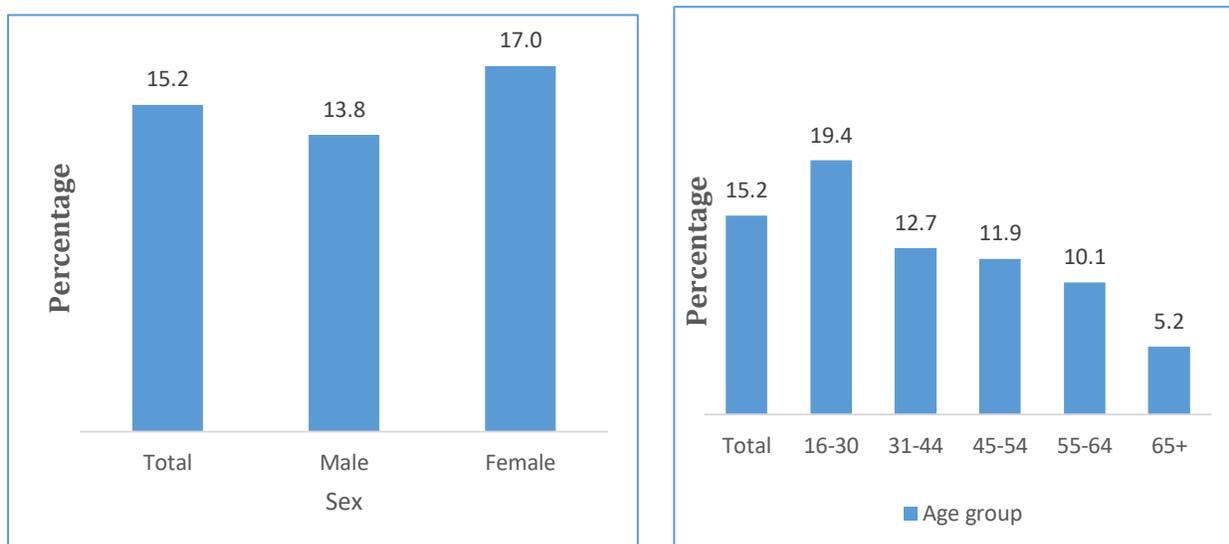
Unemployment is a particular form of labour underutilization. It reflects the pressure on the labour market as it is measured in terms of the number of persons without employment, actively seeking and available for employment. Labour underutilization is a more general concept. It refers to mismatches 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.

4.1 Unemployment rate

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 2019 LFS, the unemployment rate in Rwanda stood at 15.2 percent; it has remained almost stable compared to the previous year (15.1 percent). The unemployment rate stood at 15.3 percent in the urban areas and 15.2 in the rural areas. The unemployment rate was higher among female (17.0 percent) than male (13.8 percent), and among the youth (19.4 percent) than in the adults (12.0 percent).

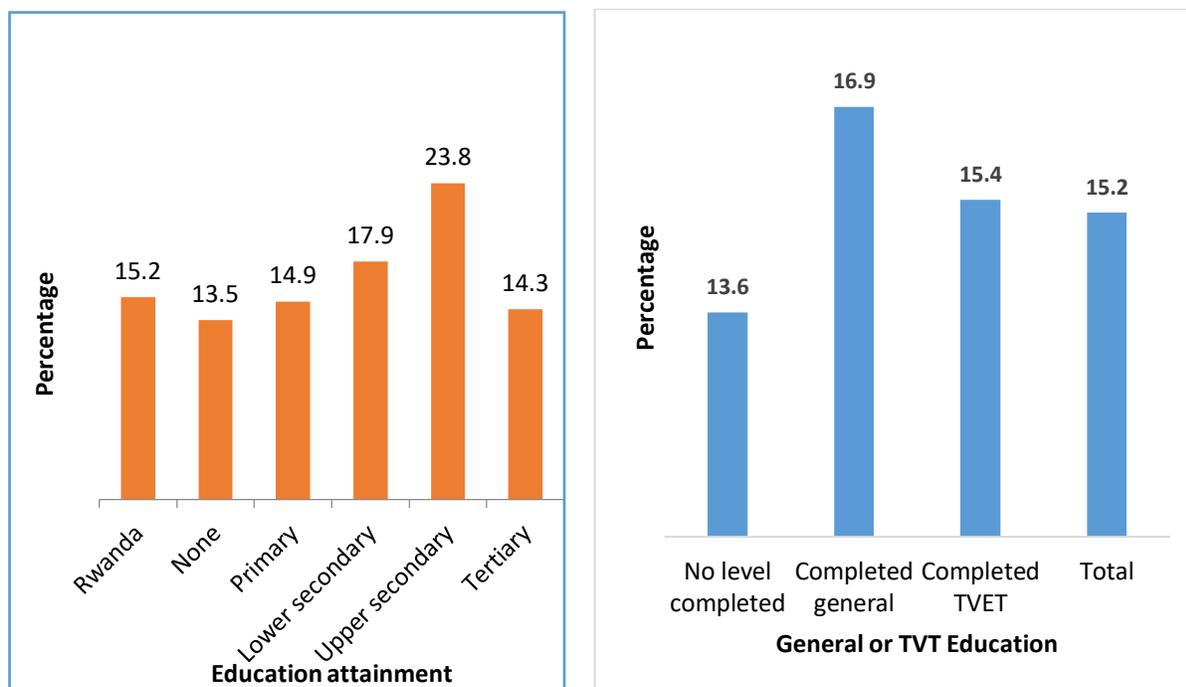
In terms of educational attainment, the results shown in Figure 4.1 indicate that the unemployment rate was the highest among persons with upper secondary education (23.9 percent) followed by lower secondary education (17.7 percent). It was the lowest among persons with no attained level of education (13.4 percent) and it was 14.6 percent for university graduates and 14.8 percent for persons with primary level of education. The unemployment rate was higher among those who completed general education (16.9 percent) compared to those who completed TVET (15.4 percent).

Figure 4. 1: Unemployment rate by sex, age group and educational attainment



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Figure 4. 2: Unemployment rate by educational attainment



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

4.2 Methods and duration for seeking employment

On average, each unemployed person used more than one 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, markets or other assembly places” (59.5 percent), followed by seeking the assistance from friends, relatives or other types of intermediaries (34.1 percent) and arranging for financial resources, applying for permits, licenses (13.1 percent). Other methods of job search were placing or answering newspaper or online job advertisements or response to job advertisements (10.8 percent), Placing and updating resumes on professional or social networking sites online (8.5 percent), registering with or contacting public or private employment services (6.9percent), and looking for land, premises, machinery, supplies, farming inputs (2.3 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 4.1 shows that 20.6 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 less than three months (46.1 percent). The general shape of the curve of unemployment by duration of job search is L-shaped with concentration at the left hand side of the distribution.

Table 4. 1: Duration of unemployment: Elapsed duration of job search

Elapsed duration of job search	Number of unemployed reporting duration of job search	%
Total	536,512	100.0
Less than 3 months	247,476	46.1
3 – less 6 months	122,937	22.9
6 – less 12 months	55,476	10.3
1 – less 2 years	58,275	10.9
2 years or more	52,348	9.8

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The median reported duration of search for employment by the unemployed was 3.0 months. It is the median duration of job search until the date of the survey.¹⁰ The duration of unemployment

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.

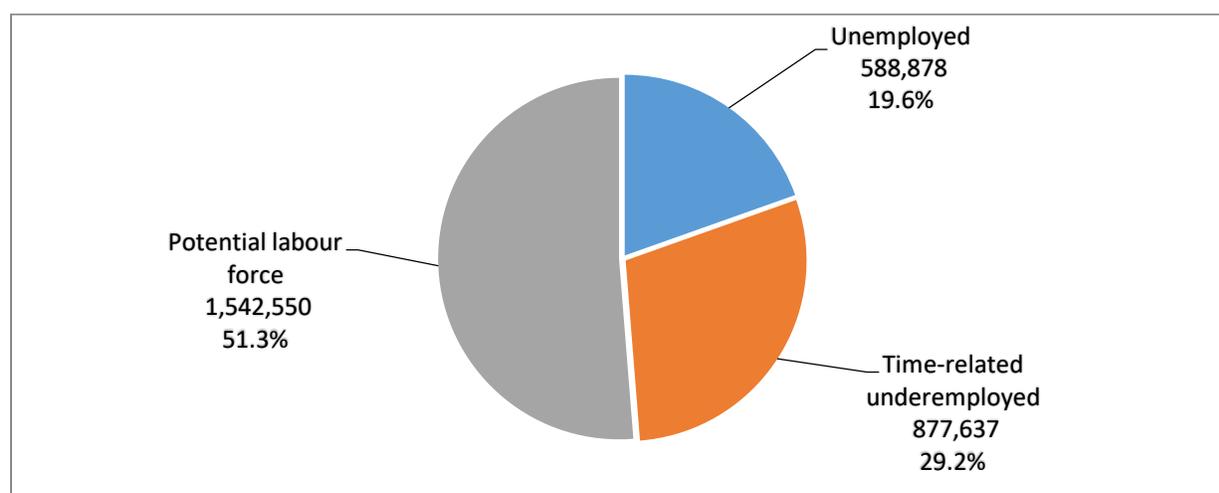
however continues after the survey. The median duration of completed spells of unemployment may be estimated as twice the duration of the interrupted spells of unemployment ($3 \times 2 = 6$ months).

4.3 Labour underutilization

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 period, 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 any activities to seek employment).

Potential labour force together with time-related underemployment and unemployment are different dimensions of labour underutilization. Figure 4.2 shows the composition of labour underutilization. It is instructive to note that unemployment was only a small part of labour underutilization in Rwanda comprising 588,878 persons and representing only 19.6 percent of labour underutilization. By far, the largest part of labour underutilization was the potential labour force with 1,542,550 persons, representing 51.3 percent of labour underutilization. The other part of labour underutilization includes the time-related underemployed, consisting of 877,637 persons representing 29.2 percent of Labour underutilization.

Figure 4. 3: Composition of labour underutilization



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

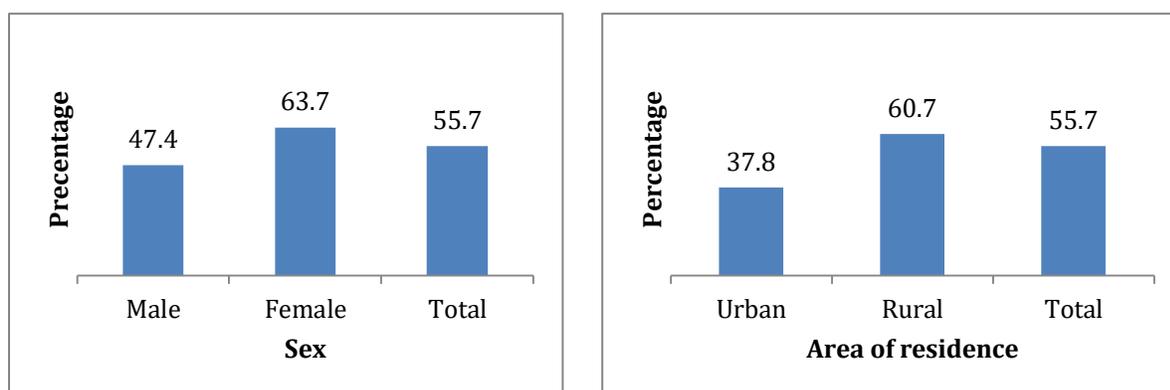
An important sub-category of the potential labour force is the discouraged jobseekers, i.e., those outside the labour force who did not “seek employment” for labour market-related reasons, such as past failure to find a suitable job, lack of experience, qualifications or jobs matching the person’s skills, lack of jobs in the area, considered too young or too old by prospective employers). According to the LFS 2019 there were about 1,142,822 discouraged jobseekers representing around 33.9 percent of those out of the labour force. The majority of discouraged jobseekers are those with primary or lower education (79.9percent), females (62.5 percent), adult aged 31 years old or above (55.9 percent), living in rural areas (89.1 percent) and participating in subsistence agriculture (71.9 percent).

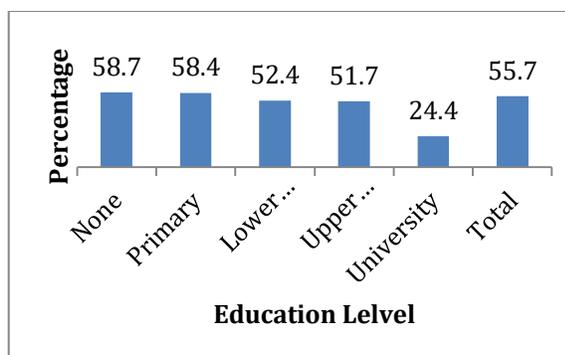
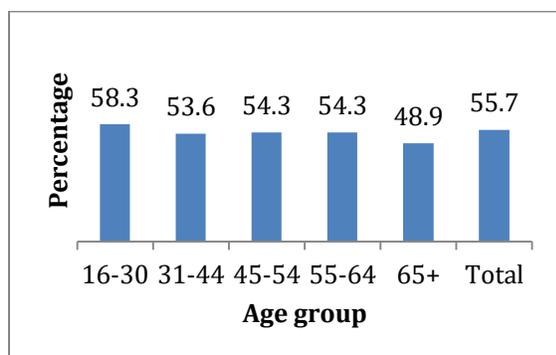
The international standards further suggest the identification of a separate group of persons outside the labour force who expressed interest in employment. They are called *willing non-jobseekers* and defined as persons neither employed nor unemployed who wanted employment but did not seek employment and were not currently available for work. The estimate of the number of willing non-jobseekers obtained from the LFS 2019 annual was 135,505 representing 4.0 percent of the population outside the labour force.

The proportion of willing non-jobseekers decreases as the level of education increases. It is 65.0 percent for those with primary or lower and 6.7 percent for university graduates. Moreover, it is higher for females (67.8 percent) and in rural areas (84.4percent).

Figure 4.3 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 4. 4: Composite measure of labour underutilization by sex, urban/rural area , age group and educational attainment





Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

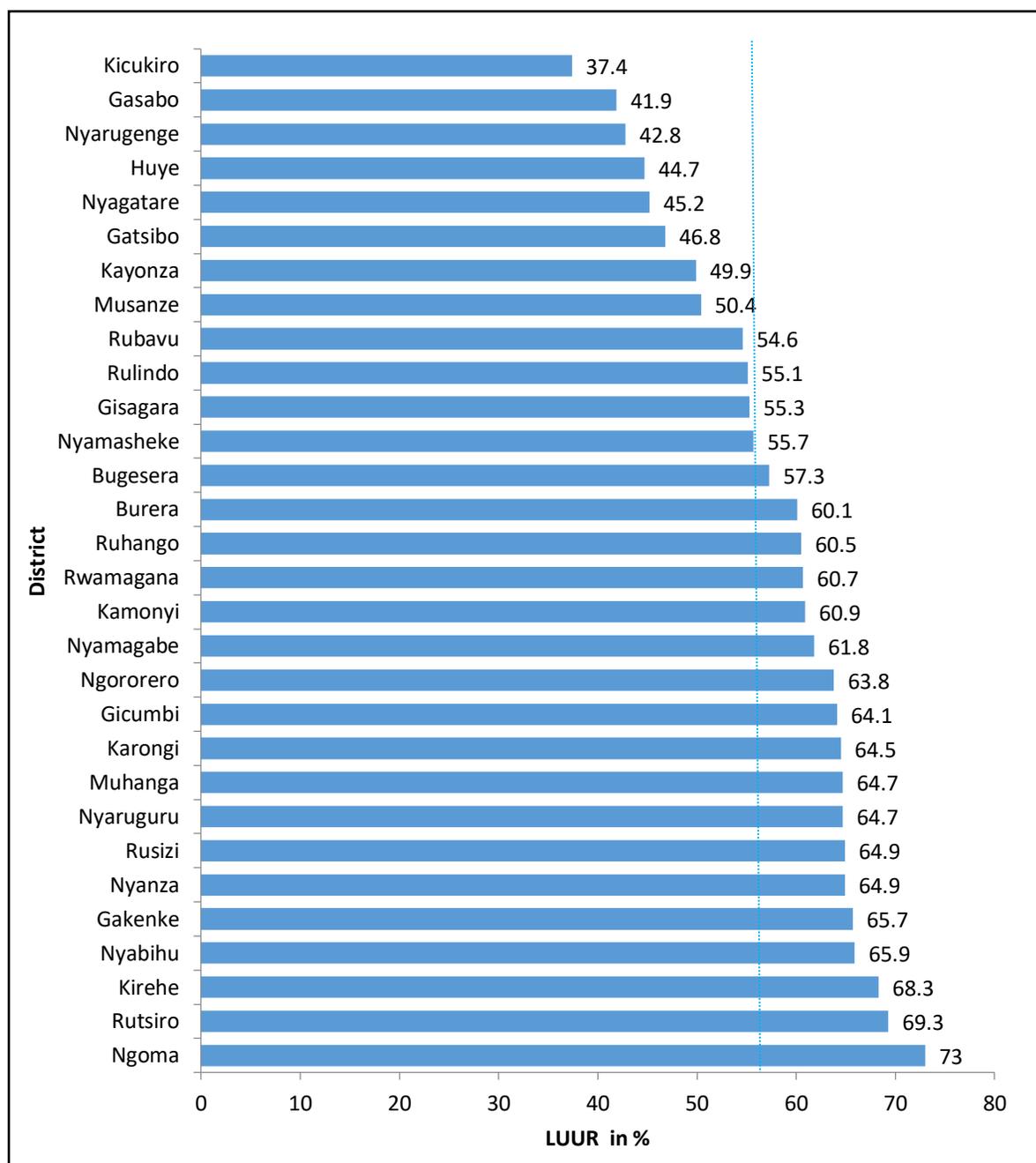
In terms of gender and age group, the composite measure of labour underutilization closely follows the pattern of the unemployment rate though at a much higher level. The female rate of labour underutilization (63.7 percent) is relatively higher than the male rate (47.4 percent). Similarly, youth (16 to 30 years old), are mostly affected by labour underutilization at a relatively higher rate (58.3 percent) than other age population groups.

According to area of residence, the rate of labour underutilization is higher in rural areas (60.7 percent) than in urban areas (37.8 percent). The reason may be attributed to a large 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 higher among persons with upper and lower secondary level of education, the rate of labour underutilization is higher among persons with no educational attainment (58.7 percent) and primary education (58.4 percent) and it is the lowest among university graduates (24.4 percent).

The analysis of labour underutilization rate by district as presented in figure 4.5 reveals that the labour underutilization of more than a half of districts is above the national labour underutilization rate (55.7 percent). Ngoma is the district with the highest labour underutilization rate (above 70 percent) while Kicukiro, Gasabo, Nyarugenge, Huye, and Nyagatare, are the first five districts with lower underutilization rates.

Figure 4. 5: Labour underutilisation rate by District



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Chapter 5: 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 as the size of the labour force itself. In Rwanda, the 2019 LFS shows that the number of working age persons outside the labour force was 3,368,737 against 3,862,798 in the labour force. The majority of the persons outside the labour force are subsistence foodstuff producers (50.3 percent).

The proportion of working age population outside labour force by province shows that the South Province account for 52.7 percent, followed by West Province (50.4 percent), East Province (48.0percent), North Province (46.9 percent), and the City of Kigali with 32.1 percent.

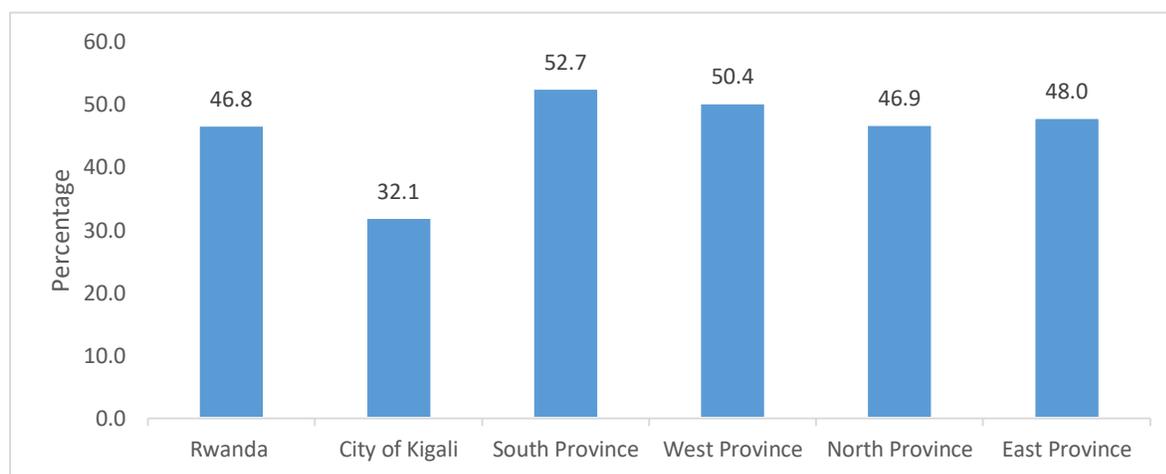
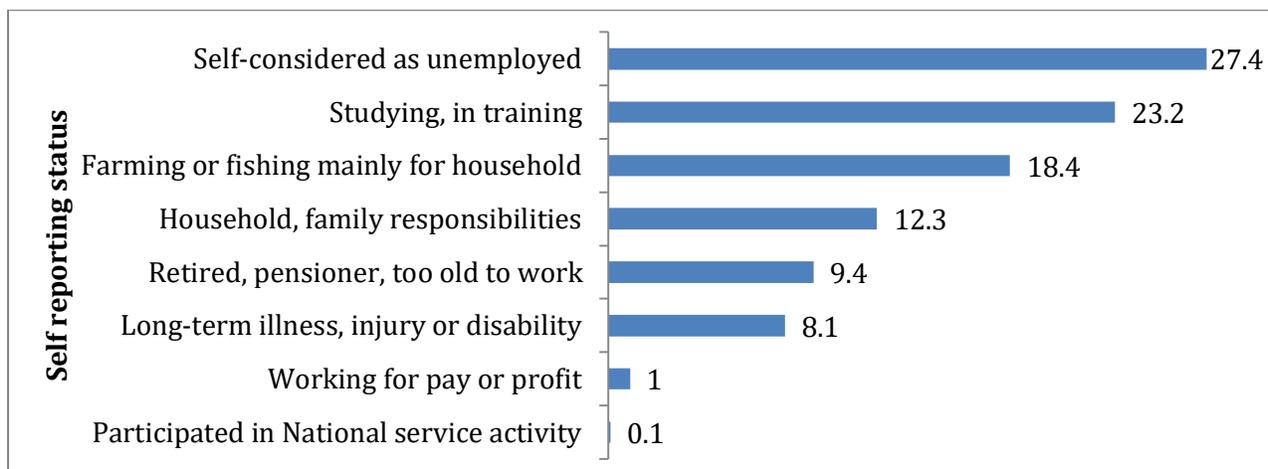


Figure 5.1: Proportion of working age population outside lab

our force by province

The survey identified the main status of people outside labour force as self-reported. Questions were addressed to person outside labour force to identify how they are considering themselves to the labour market. The largest group consisted of persons who considered themselves unemployed (27.4percent) followed by Studying, in training (23.2percent).

Figure 5. 2: Persons outside the labour force by self-reported status



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The survey also included a question on main source of livelihood of persons outside the labour force. Table 5.1 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 5.1 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. .

Table 5. 1: Main source of livelihood of persons outside the labour force by sex and age group

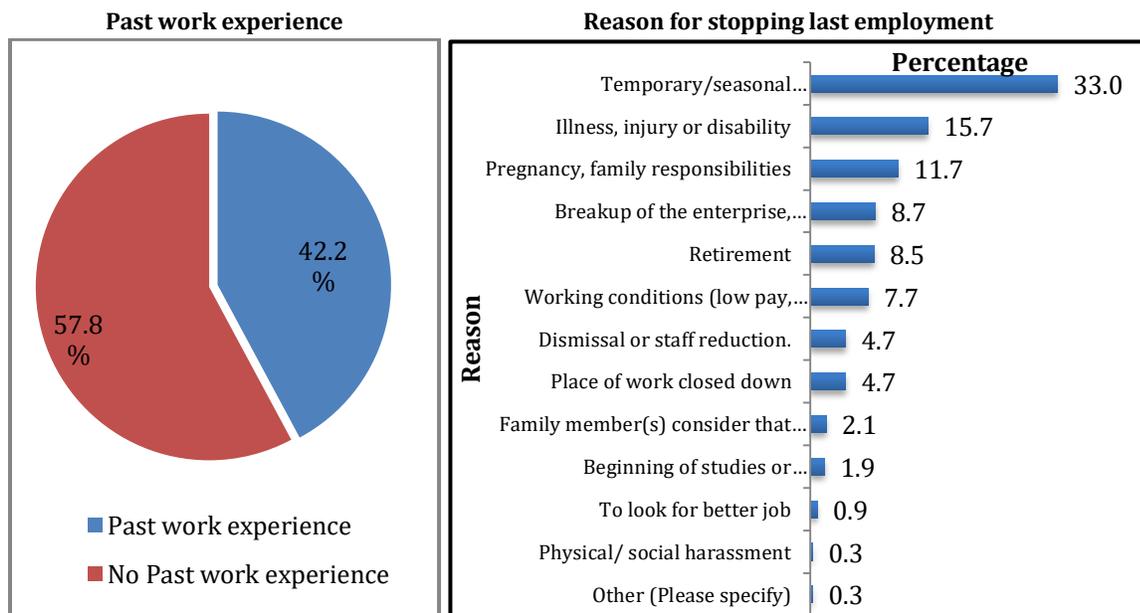
	Sex			Age group				
	Total	Male	Female	16-24 yrs	25-34 yrs	35-54 yrs	55-64 yrs	65+ yrs
Total	3,368,737	1,261,485	2,107,253	1,284,365	518,082	766,748	364,964	434,579
Parents	32.4	42.7	26.2	76.2	17.3	2.8	0.3	0.2
Husband/Wife	11.7	3.9	16.3	4	28.6	18.6	8.4	4.5
Child	2.4	1.3	3	0	0	0.9	5.7	11.9
Other family members	6.8	6.8	6.8	11.3	5.7	2.3	2.3	6.6
Pension	0.3	0.5	0.1	0	0.1	0.1	0.6	1.3
Own production	40.1	38.2	41.2	6.8	41.8	69.4	74.3	56
Assistance received [VUP]	2.1	1.5	2.4	0.1	0.4	0.8	1.9	12.5
Assistance received [FARG]	0.2	0.1	0.3	0	0.3	0.3	0.4	0.6
Assistance received [Church, Other NGO]	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2
Assistance from friends	1.1	0.9	1.1	0.3	1.3	1.1	1.2	2.8
Revenue from own property/Savings	1.1	1.3	1	0.1	0.5	1.2	2.6	3.2
Past work	1.4	2	1.1	0.5	3.4	2.2	1.8	0.1
Scholarships	0.3	0.5	0.2	0.5	0.6	0.1	0	0
Others	0.0	0.0	0.0	0.0	0.0	0.1	0	0.1

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Persons outside the labour force have different degrees of attachment to the labour market. While 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 1,420,124 persons representing 42.2 percent reported to have past work experience. Thirty-three percent of them 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 (15.7 percent), or pregnancy (11.7 percent), breakup of the enterprise (8.7 percent), bankruptcy and retirement (8.5 percent), working conditions (7.7 percent), and other reasons family responsibilities, late payment of wages, difficult work, or faraway place of work.

Figure 5. 3: Past work experience and reason for stopping last employment of persons outside the labour force



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Person outside the labour force were also analyzed according to different characteristics of the population such as education, age and sex. Table 5.2 below describes the relationship between population outside the labour force and some demographic characteristics. It is observed that 62.8 percent were females, 70.1 percent had primary education or lower and 47.2 percent were youth people (16 to 30 yrs).

Table 5. 2: Demographic characteristics of population outside labour force

Characteristics	Total	%
Sex		
Male	1,261,485	37.4
Female	2,107,253	62.6
Education level		
Primary or lower	2,352,829	69.8
Secondary(lower and upper)	874,727	26
University	141,181	4.2
Age group		
16-24_yrs	1,284,365	38.1
25-34_yrs	518,082	15.4
35-54_yrs	766,748	22.8
55-64_yrs	364,964	10.8
65+_yrs	434,579	12.9
Youth and adult		
16-30	1,608,416	47.7
31+	1,760,322	52.3
Total	3,368,737	100

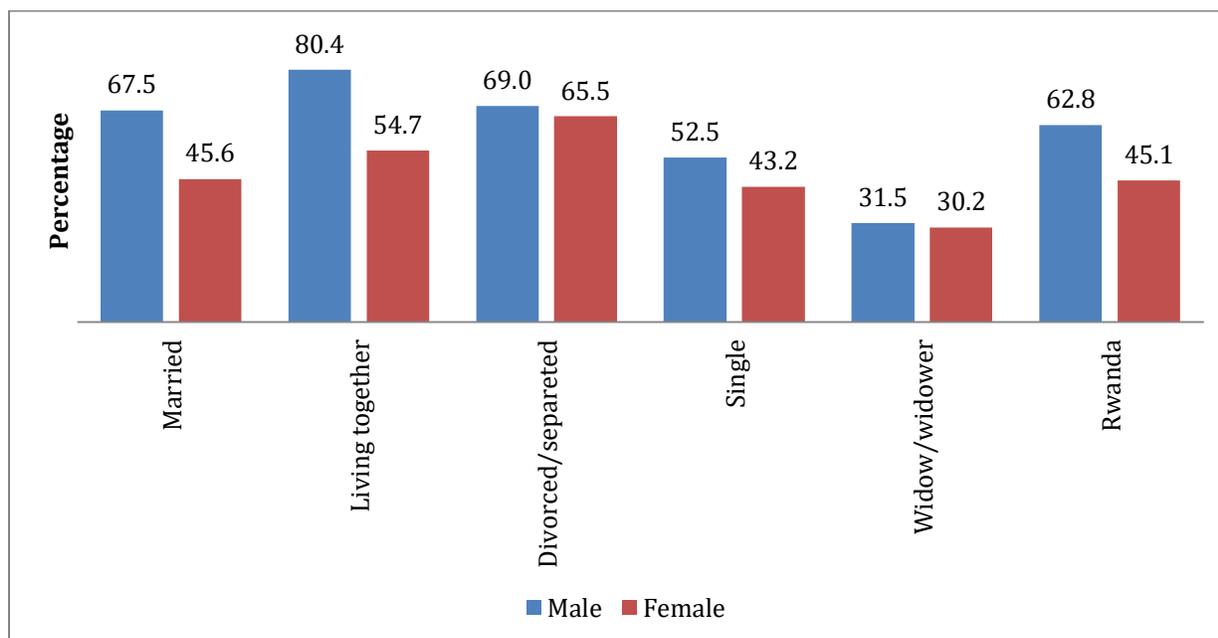
Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Chapter 6: Women and equal opportunities

Women account for 44.8 percent of the labour force in Rwanda. The 2019 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, the proportion of women in managerial positions, and occupational segregation index.

The overall female labour force participation rate was 45.1 percent. As shown in Figure 6.1 below, the labour force participation rate was lower for widower (30.2 percent) and much higher for female separated (65.5 percent).

Figure 6. 1: Labour force participation by marital status and sex



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The primary goal of Rwanda is to promote opportunities for both women and men to obtain decent work. Over the past few years, Rwanda has experienced a significant progress toward achieving gender equality in the working place. However, in the managerial positions, the proportion of women is still lower than men.

The results in Table 6.1 show that there were 3,393 women working as chief executives, senior officials and legislators, 5,392 women as administrative and commercial managers, giving a total of 8,785 women in specialized managerial positions. The corresponding total for men was 18,279 persons. Thus, the overall share of women in specialized managerial positions was 32.5 percent.

Table 6. 1: Women and men in managerial positions

Sub-major occupation groups	Persons			%		
	Total	Male	Female	Total	Male	Female
Total Persons in specialized managerial positions	27,064	18,279	8,785	100	67.5	32.5
Chief executives, senior officials and legislators	10,562	7,169	3,393	100	67.9	32.1
Administrative and commercial managers	16,502	11,110	5,392	100	67.3	32.7

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

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.¹¹ 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 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 2019 LFS, the segregation index calculated at four-digit level of occupation was 0.42 indicating that 42 percent of the male and female employed population need to exchange occupations to eliminate occupational segregation in Rwanda.

Among the 380 distinct 4-digit occupations recorded from the survey, five contributed more than a half of total occupational segregation index in the country as displayed in the table 6.2 below:

Table 6. 2: Occupations with high gender segregation

Occupation	Male	Female	Total
Crop farm labourers	374,448	557,771	932,219
Building construction labourers	141,106	18,586	159,692
House builders	64,284	869	65,153
Mining and quarrying labourers	58,073	3,989	62,062
Hand and pedal vehicle drivers	52,592	0	52,592

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

It can be observed from these results that building construction labourers, ‘mining and quarrying labourers’, house builders and ‘hand and pedal vehicle drivers’ were male-dominated occupations while crop farm labourers, was female dominated occupations.

¹¹ILO, *Decent Work Indicators Concepts and definitions, ILO Manual (First version)*, May 2012, pp. 127-130.

Chapter 7: Youth population

7.1 Youth and education

The international definition of the youth population is “persons aged 15-24 years old.”¹² 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. In Rwanda, youth is defined as persons aged between 16 to 30 years old.

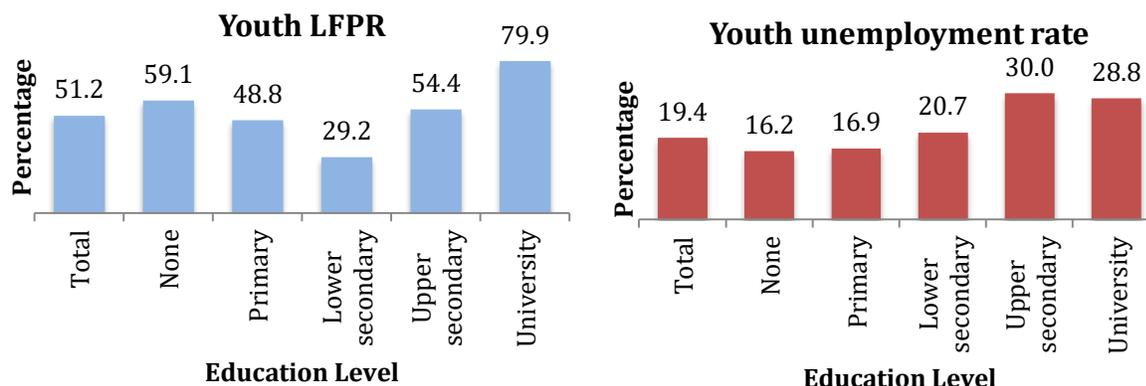
In general, there is a two-way relationship between the education system and the labour market. The education system supplies the labour market with educated labour force, while the labour market – through the wage structure of occupations and other labour market variables – transmits signals on the types of qualifications expected from the education system. The data collected by the 2019 LFS contain the elements for carrying such types of analysis.

Figure 7.1 presents in the left panel the youth labour force participation rate by educational attainment and youth unemployment rate by educational attainment on the right. The results show that the labour force participation rate was higher among the university graduates (79.9 percent), and was above the National average (51.2 percent) among those with no education level (59.1 percent) and those who attained upper secondary (54.4 percent), while it was less than the national average in the rest of education levels with the lowest rate among youth people with lower secondary education for whom the labour force participation rate was 29.2 percent.

The relationship between educational attainment and the unemployment rate is also significantly different, showing a relatively positive slope. Unemployment shows an increasing pattern from 16.2 percent for young people with no educational attainment to 30.0 percent for youth with upper secondary education and to 28.8 percent among youth who completed university education. The unemployment rate among youth was 19.4 percent which is higher than the rate at national level (15.2 percent).

¹²ILO, *Global Employment Trends for Youth 2015*, Employment Policy Department, International Labour Office, Geneva, 2015.

Figure 7. 1: Youth (16-30 years old) labour force participation rate and unemployment rate by educational attainment



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

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 youth and the skill requirements of jobs in the labour market.

7.2 Youth neither in employment, nor in education or training (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.¹³ A full account of the labour market situation of young people is important for the formulation of employment policies regarding the youth. The results of LFS 2019 shows that out of 3,297,203 youth persons, 875,470 were in education or training, and 1,360,376 were in employment during the reference week, including about 68,476 persons in both employment and in education or training. The number of youth persons who were neither in employment, nor in education or training was 1,129,832 corresponding to about 34.3 percent of the youth population. Table 7.1 provides a measure of the youth who are outside the educational system and not in employment (NEET).

Among the NEET population are the youth unemployed or in the potential labour force who are not in the educational system, 299,775 and 613,184, respectively. The remaining 216,873 are not accounted for. Some may want employment but not seeking, nor currently available for work, but 30.5 percent of them were involved in subsistence agriculture. As results from the table 7.1 show, the NEET rate is higher among youth women (41.4 percent) than among youth men (26.5 percent), as relatively more women than men remain outside the labour force after completing their

¹³ ILO, *Decent Work Indicators Concepts and definitions, ILO Manual (First version)*, International Labour Office, Geneva, May 2012, pp. 51-53.

education or training. Many of them are however in the potential labour force, available to take up employment under suitable conditions.

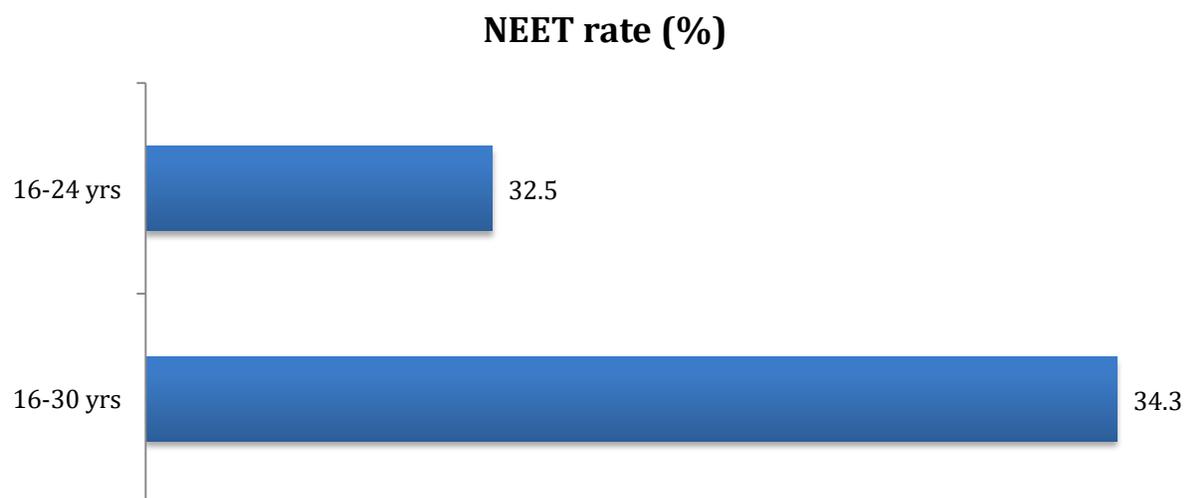
Table 7. 1: Youth population (16-30 yrs) with respect to employment and education or training, 2019

	Number			Percentage		
	Total	Youth men	Youth women	Total	Youth men	Youth women
Total youth population (16-30 yrs)	3,297,203	1,579,617	1,717,586	100.0	100.0	100.0
In education or training	806,994	411,014	395,980	24.5	26.0	23.1
In employment	1,291,900	708,409	583,492	39.2	44.9	34.0
In both employment and education or training	68,476	42,045	26,431	2.1	2.7	1.5
Not in employment nor in education/training (NEET)	1,129,833	418,149	711,683	34.3	26.5	41.4
- Unemployed	299,775	135,930	163,845	26.5	32.5	23.0
- Potential labour force	613,184	203,182	410,002	54.3	48.6	57.6
- Other	216,874	79,037	137,836	19.2	18.9	19.4

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The results in figure 7.2 indicate that the percentage of youth people (16-24 yrs) not in employment and not in education or training is slightly lower than that of the young people (16-30 yrs), namely 32,5 percent versus 34.3 percent. The following diagram shows the variation of the NEET rate as a function of age.

Figure 7. 2: Youth not in employment and not in education or training

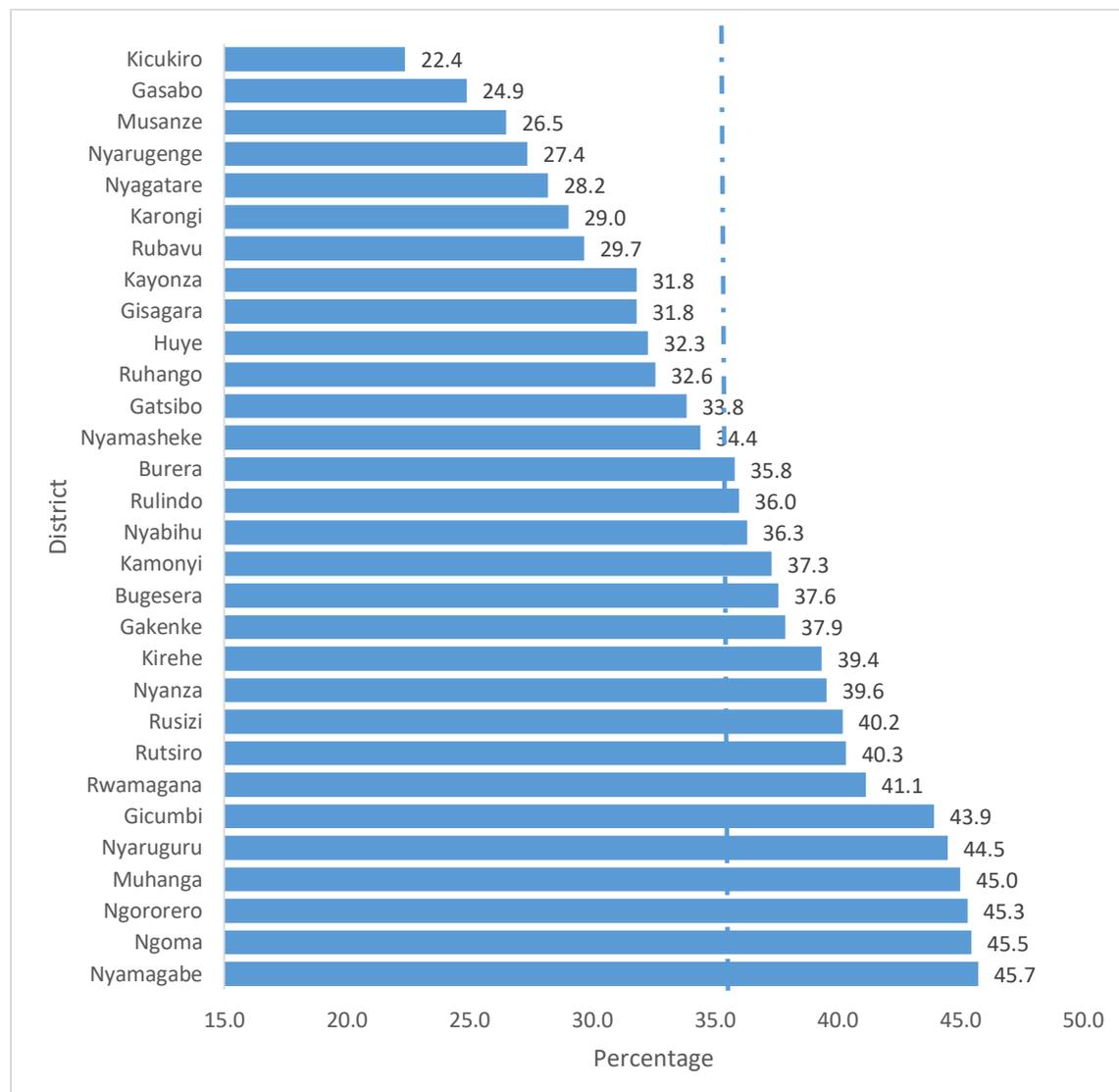


Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Figure 7. 3 below illustrate the proportion of youth not in education employment or training by district. It is observed that the youth NEET in 13 out of 30 Districts of Rwanda were below the

national average while it was higher than the national average in the remaining District. District with the highest youth NEET is Ngororero followed by Ngoma and Nyamagabe.

Figure 7. 3: Proportion of Youth (16-30) Neither in Employment nor in Education or Training (NEET) by District



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Note: dotted line represents the national average

Chapter 8: 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 subjects or trades/courses and type of training providers, the LFS questionnaire included four questions (B07-B10) on current participation or past acquisition of any trade or technical vocational course among all eligible respondents.

Table 8.1 gives the distribution of training courses completed and the status of employment of the participants. There is in total 12 training courses or subjects that covered more than 1 percent each of the total number of graduates. Among them, the most popular training course was tailoring with participation rate of 25.7 percent, followed by masonry with participation rates of 21.1 percent and carpentry with 8.3 percent.

Table 8. 1: Participation in trade or technical vocational course and current employment status

Type of technical skills learned	Completed vocational training		Currently working	
	Number of persons	%	Number of persons	%
Tailoring	193,791	28.9	102,919	53.1
Masonry	137,266	20.5	84,335	61.4
Carpentry	49,705	7.4	33,105	66.6
Culinary arts	41,281	6.2	21,270	51.5
Automotive body repair	35,632	5.3	25,866	72.6
Hairdressing	33,011	4.9	19,652	59.5
Crochet embroidery	27,214	4.1	12,367	45.4
Domestic Electricity	26,239	3.9	17,700	67.5
Welding	18,919	2.8	14,087	74.5
Automotive technology.	11,446	1.7	8,697	76.0
Engine mechanics	8,397	1.3	5,819	69.3
Motor vehicle engine mechanics	8,035	1.2	6,555	81.6
Biding and Jewelries	6,979	1	2,210	31.7
Front office	6,880	1	2,726	39.6
Painting and decoration	5,687	0.9	4,360	76.7
Computer maintenance	4,854	0.7	3,927	80.9
Other	4,807	0.7	2,238	46.6
Leather craft	4,509	0.7	2,966	65.8
Software Development	4,484	0.7	2,509	56.0
Plumbing	4,084	0.6	2,231	54.6
Food & Beverage services	3,353	0.5	1,693	50.5
Driving	3,171	0.5	2,669	84.2
Film making	2,985	0.5	965	32.3
Typing(dactilographie)	2,664	0.4	2,420	90.8
Industrial electricity	2,618	0.4	1,953	74.6
Agri-Business	2,580	0.4	904	35.0
22. Civil construction	2,207	0.3	1,508	68.3
Livestock	1,970	0.3	1,879	95.4
Beauty therapy	1,971	0.3	1,677	85.1
Food processing	1,771	0.3	1,261	71.2
Networking	1,768	0.3	1,020	57.7
Manicure and Pedicure	1,214	0.2	631	52.0
Music	1,110	0.2	783	70.5
Nursery growing	1,076	0.2	781	72.6
Pottery	1,080	0.2	902	83.5

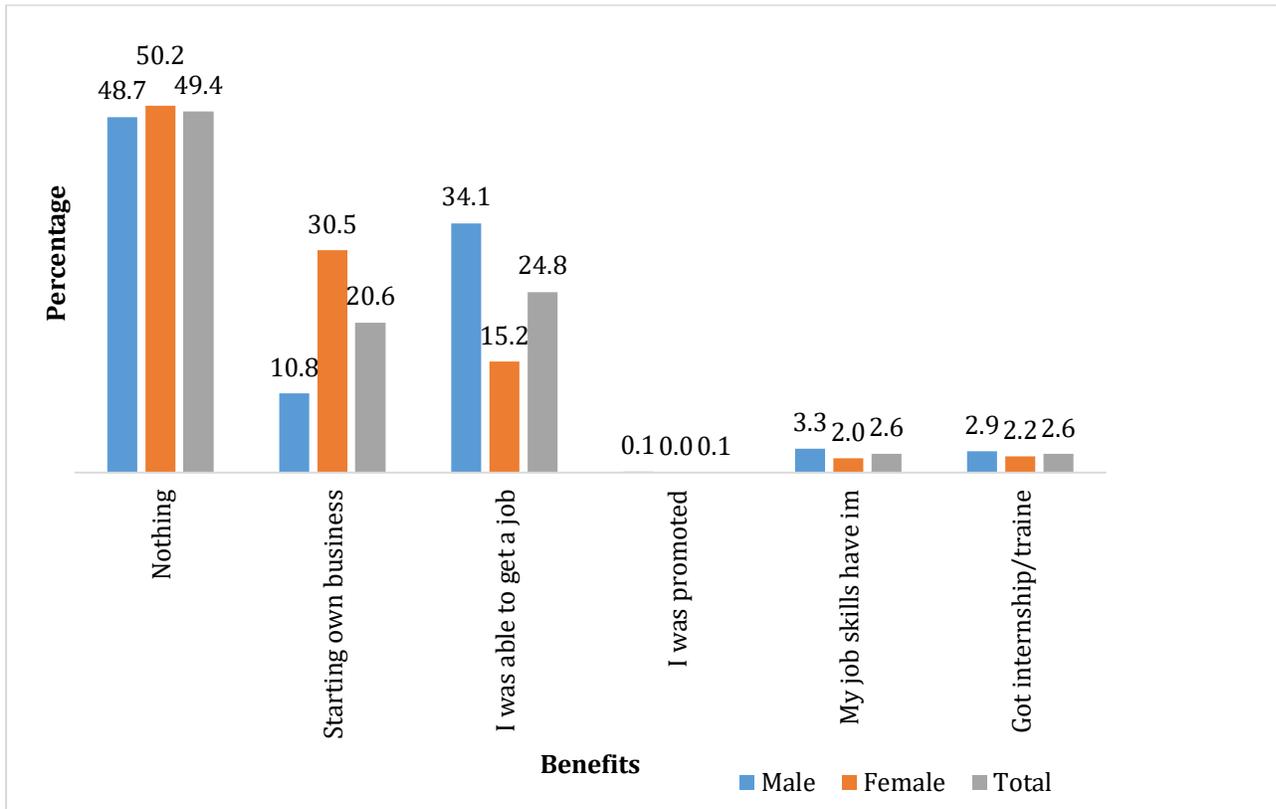
Type of technical skills learned	Completed vocational training		Currently working	
	Number of persons	%	Number of persons	%
Auto- Electricity	963	0.1	761	79.0
Multimedia	878	0.1	636	72.4
Screen printing	786	0.1	252	32.1
Sport and Medical Massage	693	0.1	229	33.0
Colleography	538	0.1	60	11.2
and Palliative Care Community Heal	459	0.1	123	26.8
Concrete masonry	398	0.1	239	60.1
Animal health	273	0	138	50.5
Bee Keeping	265	0	265	100.0
Crop production	197	0	197	100.0
Milk processing	109	0	109	100.0
House keeping	163	0	163	100.0
Horticulture production	68	0	68	100.0

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The evaluation of the success or non-success of the training courses in terms of the current employment status of the graduates revealed 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, Motor vehicle engine mechanics was the most successful training course with current employment rate of 81.6 percent, followed Automotive technology (76.0 percent), welding (74.5 percent), Automotive body repair (72.6 percent) and Engine mechanics (69.3 percent).

The LFS 2019 also included a question on the success of the training course in terms of “what happened after the completion of the course”. The results presented in Figure 8.1 show the benefits after completing vocational training among those who completed their studies 3 years prior to the survey. The survey showed that Fifty-one percent (51 percent) of the them reported benefits after completing the training course. These included 24.8 percent who managed to get a job and 20.6 percent who managed to start their own business. By contrast, a considerable portion (49.4 percent) reported no particular improvement in their situation after completion of the training course in last 3 years. Among male who completed vocational training in last three years, 48.7 percent did not report any improvement after completion while among female this proportion was 50.2 percent. Female reported having started their own business as a result of training completion more than male (30.5 percent compared to 10.8 percent) and male reported getting a job more than female (34.1 percent as compared to 15.2 percent).

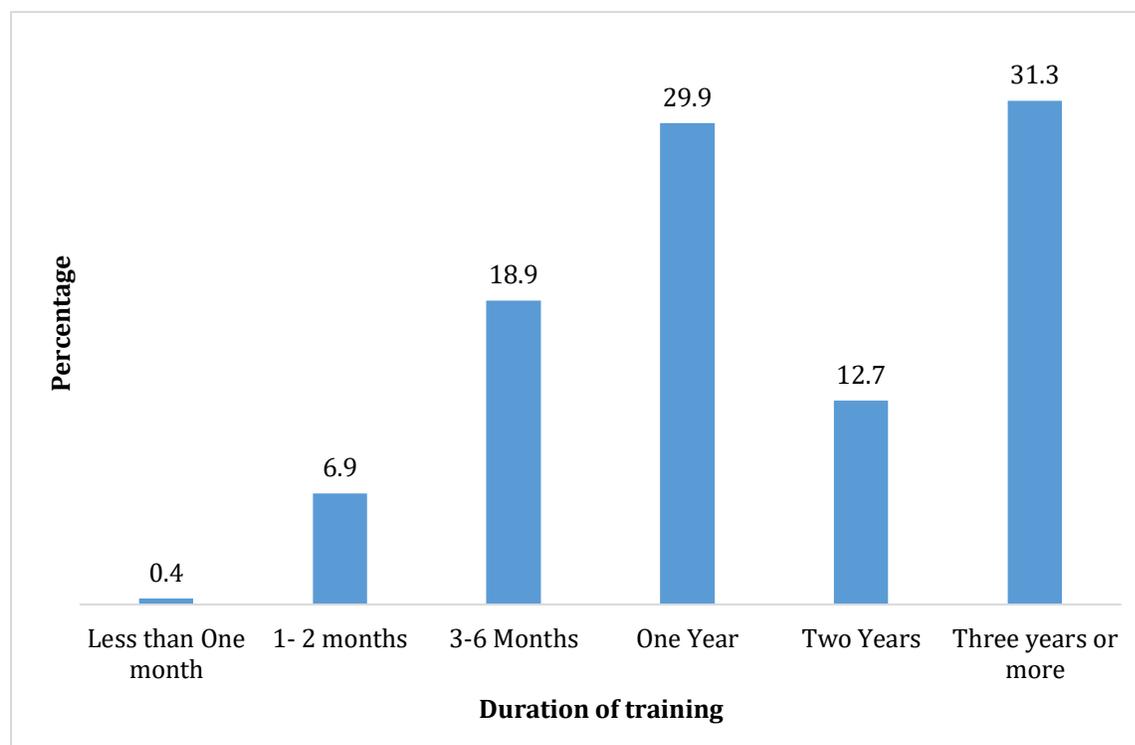
Figure 8. 1: Percentage distribution of self-reported benefits after completing vocational training three years after completion



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The analysis of the duration of training course showed that most of TVET graduates completed three years of technical or vocational Training (31.3 percent) followed by those who completed one years or more of training (29.9 percent). On the other way a proportion of 18.9 percent completed 3 to 6 months in their technical or vocational school and also a proportion of 12.7 percent spent 2 years or more to complete their technical or vocational school. Most of these trainees who completed 2 years or more, acquired these skills in a technical training school / IPRC and were mostly self-sponsored.

Figure 8. 2: Distribution of TVT graduates in last three years by duration of training



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Chapter 9: Work in Agriculture

Considering a substantial number of Rwandan population involved in agriculture sector, a special attention has been paid to it in the present report. The introduction of 2013 standards on work, employment and labor underutilization statistics split workers in agriculture occupations into two categories: market oriented and non-market oriented (Subsistence agriculture). Workers in the former category are considered as employed while those in latter are not counted as employed. In this report all parts are brought together to analyze the work in agriculture sector as a whole.

9.1 Agricultural status of workers

From the data of LFS, the following four categories were identified to explain the status of workers in agriculture: Those who are engaged in market oriented agriculture as main job, working for pay or self-employed; those who are exclusively engaged in subsistence agriculture; those who have their main job out of agriculture but performed foodstuff production activities for own use and finally, those who were involved in market oriented agriculture as their secondary job.

The full count of workers in agriculture sector as presented in table 9.1 reveals that in 2019, about 52.5 percent of working age population were involved in agriculture activity either in subsistence or market oriented. On one hand, workers engaged exclusively in subsistence agriculture presented the majority of agriculture sector (52.8 percent), followed by those engaged in market oriented agriculture as their main job (32.3 percent). On the other hand, the proportion of those who combine non-agricultural employment and subsistence agriculture represented 14.7 percent and the remaining 0.6 % were involved in marked oriented agriculture as their secondary job.

Table 9. 1: Works status in agriculture

Categories of agriculture	Number	%
Workers in market oriented agriculture as main job	1,225,151	32.3
Workers in market oriented agriculture as secondary job	22,086	0.6
Workers in subsistence agriculture but engaged in non-agricultural activities	545,192	14.4
Workers in subsistence agriculture exclusively	2,002,382	52.8
Total	3,794,810	100
Proportion of working age population (%)		52.5

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

9.2 Characteristics of agriculture workers

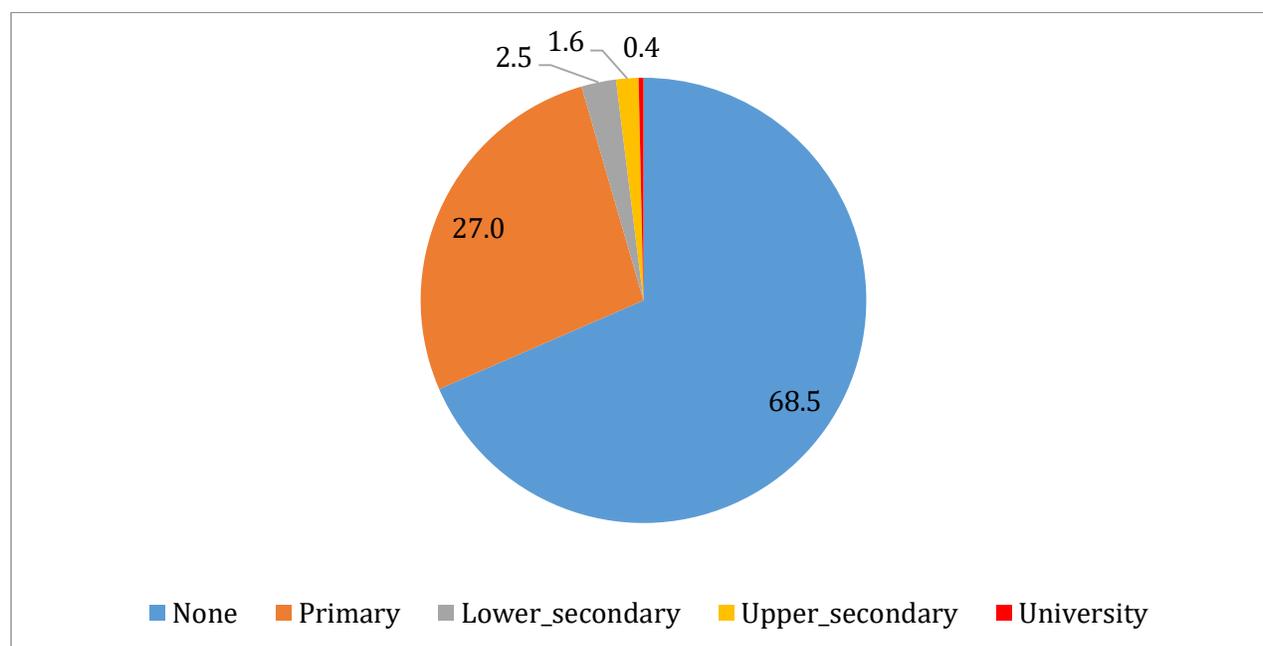
The focus of the following sub-sections is on the two first categories of table 9.1 (Workers in market oriented agricultural in main job and those involved exclusively in subsistence agriculture) to describe characteristics of workers primarily engaged in agriculture job.

9.2.1 Market-oriented agriculture workers

Agriculture constitutes the main source of livelihood of many Rwandans as the portion of population which were only in market oriented agriculture represented more than one third (37.4

Percent) of the employed population. Figure 9.1 describe the distribution of person working in market-oriented agriculture by respective level of education. It is generally observed that employment in market-oriented agriculture declines as the level of education increases, it was 68.5 percent among person with who did not complete any level of education and less than one percent among those with university level of education.

Figure 9. 1: Proportion of working age group involved in agriculture employment by level of education attained



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

At the national level, women were more engaged in market-oriented agriculture than men with 53.8 percent versus 46.2 percent for men. Market oriented agriculture activity was also mostly observed among adult (64.7 percent) compared to youth (35.3 percent).

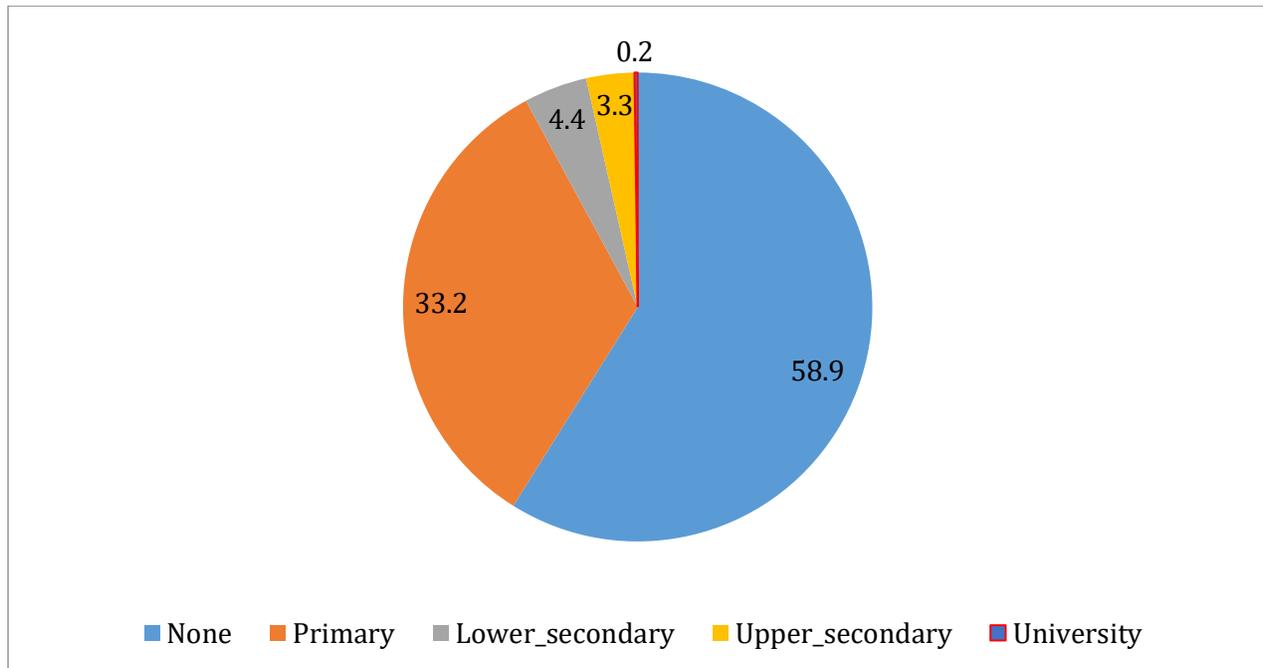
The majority of people employed in market-oriented agriculture were paid employees who represent 80.4 percent, mostly working on daily basis contract (87.7 percent) and whose average monthly salary is 20,384 Frw. Own account workers represented 13.5 percent of market oriented agriculture while contributing family workers represent 4.7 percent.

9.2.2 Subsistence foodstuff producers

Among the population aged 16 years and above, 2,002,382 representing 27.7 percent of working age population, were exclusively engaged in subsistence foodstuff production. They have spent on average 20.8 hours per week on this activity, which is lower than 30 usually weekly hours spent by those engaged in market-oriented agriculture, but higher than 15.6 hours per week spent in subsistence foodstuff production by those who have other non-agriculture employment.

People, who have a higher level of education, are less likely to be involved in subsistence agriculture. About ninety-two percent (92.1 percent) of those engaged in subsistence agriculture have at most primary school level of education.

Figure 9. 2: Proportion of working age group involved in subsistence agriculture by level of education attained

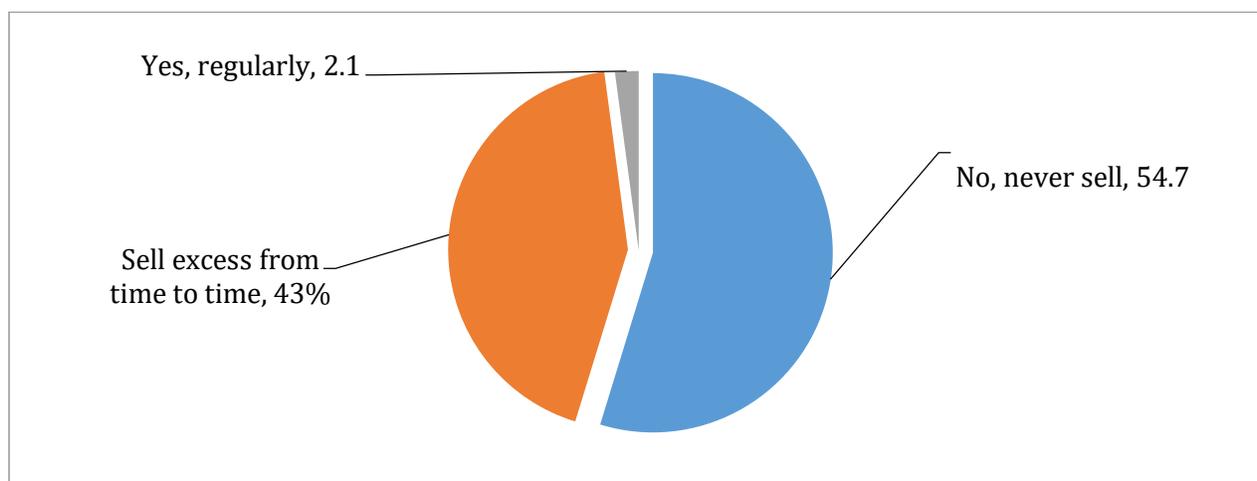


Source: RLFS 2019

9.3 Practices of households engaged in subsistence foodstuff production

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

Figure 9. 3: Percentage distribution of the use of household production

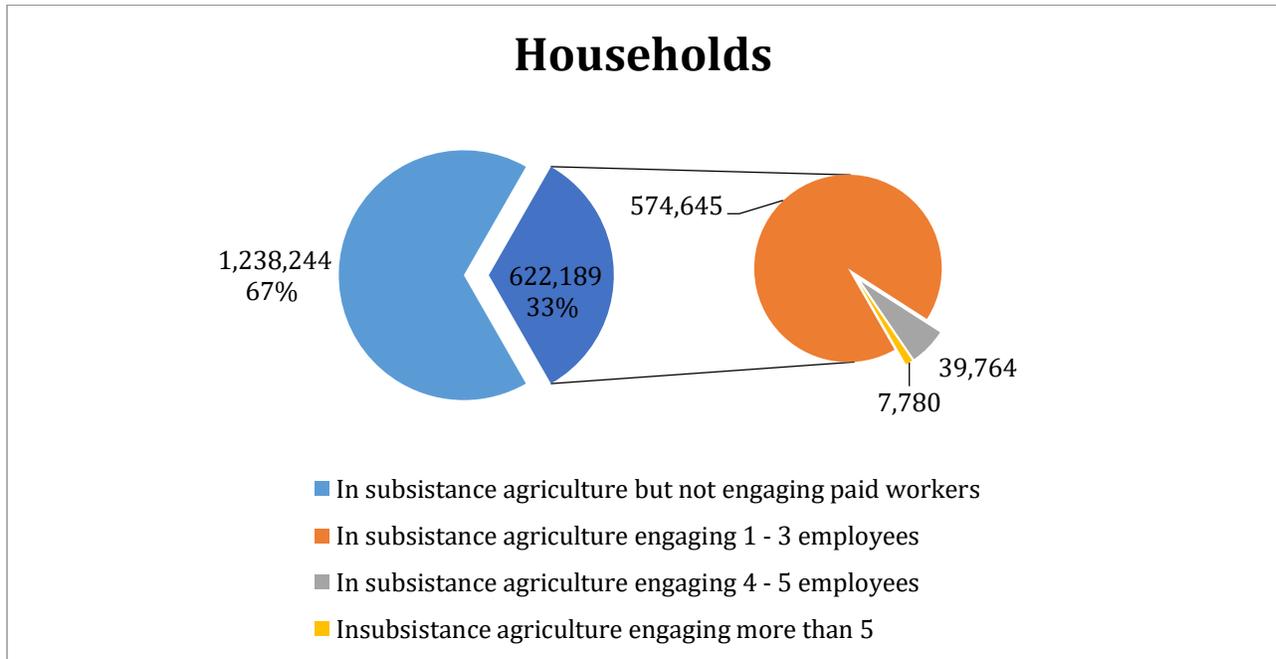


Source: RLFS 2019

Figure 9.3 above shows that 54.7 percent of households engaged in subsistence agriculture in Rwanda did not sell any production. As expected in a country with predominant agriculture, production was directly used for the household. Only 2.1 percent of households were selling their production on a regular basis while 43.0 percent sell excess of their production from time to time.

Among the households which participated in subsistence agriculture, 622,189 corresponding to 33.0 percent of those households, employed regularly or sometimes agriculture laborers. The results showed that 93 percent of households which engaged workers in subsistence agriculture, employed between 1 to 3 persons excluding other members of the household.

Figure 9. 4: Participation of paid workers in exclusive subsistence agriculture



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

9.4 Share of agricultural workers in total work force

The present sub section shed light on the proportion of agricultural workers in the total work force defined as the sum of total employment and the number of persons not employed but engaged in subsistence agriculture. According to the results presented in figure below, 73 percent of the working age population was part of workforce in 2019. The share of agriculture in the workforce was 61.2 percent, which means that the remaining proportion (38.8 percent) was the share of non-agriculture employment in the workforce. Workers engaged in subsistence agriculture represented a big share (62 percent) of agricultural workers.

Figure 9. 5: Workforce framework

Working age population: 7,231,536		
Workforce (Sum of employment and subsistence agriculture): 5,276,303 73%		Not employed nor in subsistence agriculture: 1,955,234 27 %
Employment in non-agriculture sector: 2,048,770 38.8%	Workers mainly engaged in agriculture (market + subsistence agriculture): 3,227,533 61.2 %	
	Market oriented agriculture: 1,225,151 38%	Subsistence agriculture 2,002,382 62%

Chapter 10: Own use production works out of agriculture

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 outside the SNA however it is included in 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 LFS questionnaire contains 7 questions on time spent on different types of own-use production work excluding production or processing of food stuff. These questions were asked to all people excluding domestic workers who are paid to undertake that kind of work. The results shown in Table 10.1 indicate that 5,640,782 persons aged 16 years old and above, representing 80.0 percent of the people who were eligible to respond to questions related to own use production work (7,057,301 persons), were engaged in at least one type of own-use production work during the reference period. Among them 2,264,919 representing 40.2 percent were male and 3,375,863 (59.9 percent) were female. They devoted on average 18.2 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 9.5 hours per week, followed by "fetching water for the household, including travel time" (44.0percent of working age population) and on average 3.9 hours per week.

Table 10. 1: Average time spend per week on own-use production

	Number of persons	(%)	Average number of hours
Population aged 16 years old and above engaged in some type of own-use production work	5,640,782	80.0	17.9
Collecting firewood for the household including travel time	2,660,094	36.8	4.3
Fetching water for the household, including travel time	3,158,908	43.7	3.9
Searching for fodder or grazing for the household's animals	2,410,738	33.3	8.0
Constructing your dwelling, making major repairs on it, farm buildings, private roads, or wells	402,488	5.6	5.1
Manufacturing household goods for own or family use	126,445	1.7	6.7
Doing household chores including shopping, preparing meals	4,367,660	60.4	9.7
Looking after children and elderly	2,294,000	31.7	7.2
Own-use production work among the labour force			
Labour force	2,941,662	52.2	17.0
Employed	2,435,856	43.2	16.3
Unemployed	505,807	9.0	20.5

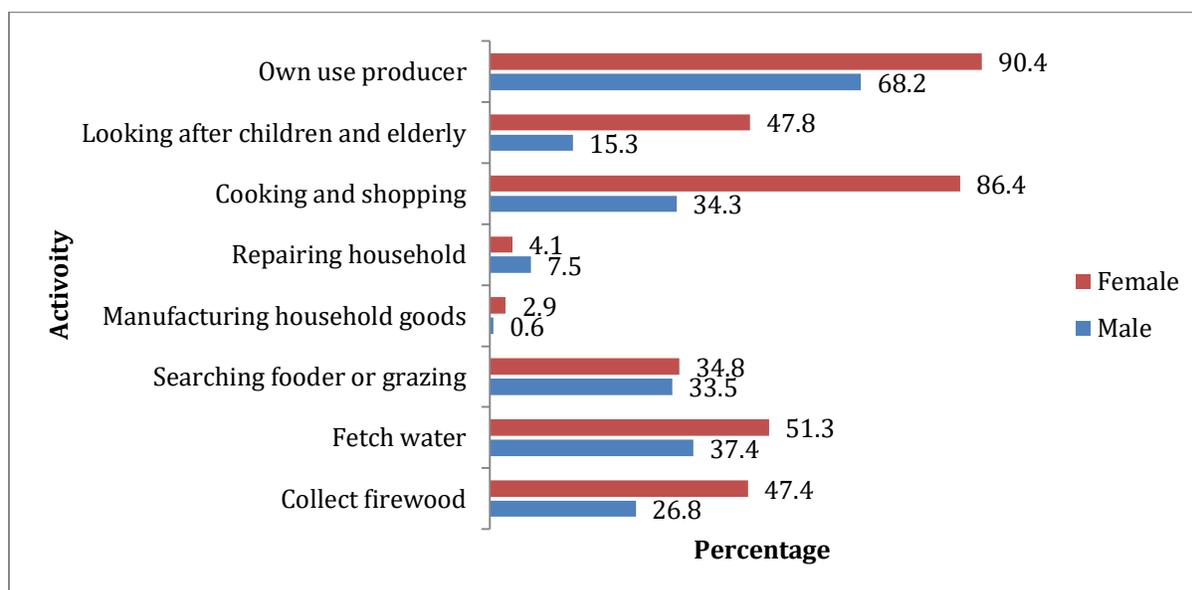
Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Table 10.1 also shows that 2,941,662 persons combined labour force activity with own-use production work above mentioned. The average time spent per week on own-use production work among people in labour force was 17.0 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 51.7 hours per week.

Figure 10.1 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 (90.4percent) than males (68.2percent). Except for repairing of own dwelling, the proportion of females in working age engaged in other type of own use production activities was higher than the proportion of males in working age.

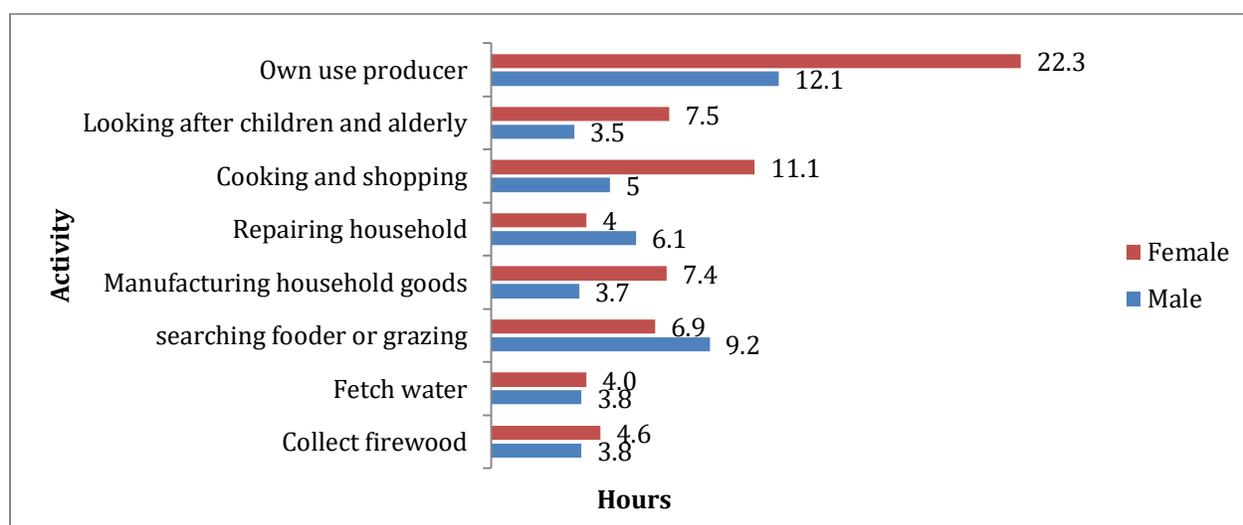
Figure 10. 1: Proportion of working age population who are own use producers by sex



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Figure 10.2 presents the average number of time spent per week in own use production of different services by sex. The time spent by females (22.4 hours) was almost twice as high as the time spent by males (12.1 hours) in those activities. The activities in which females were spending more time were cooking and shopping (11.1 hours) followed by looking after children or elderly (7.5 hours) while males were spending more time in searching folder or grazing (9.2 hours) and repairing own houses (6.1 hours).

Figure 10. 2: Average number of hours spent in own use production activities by type and sex

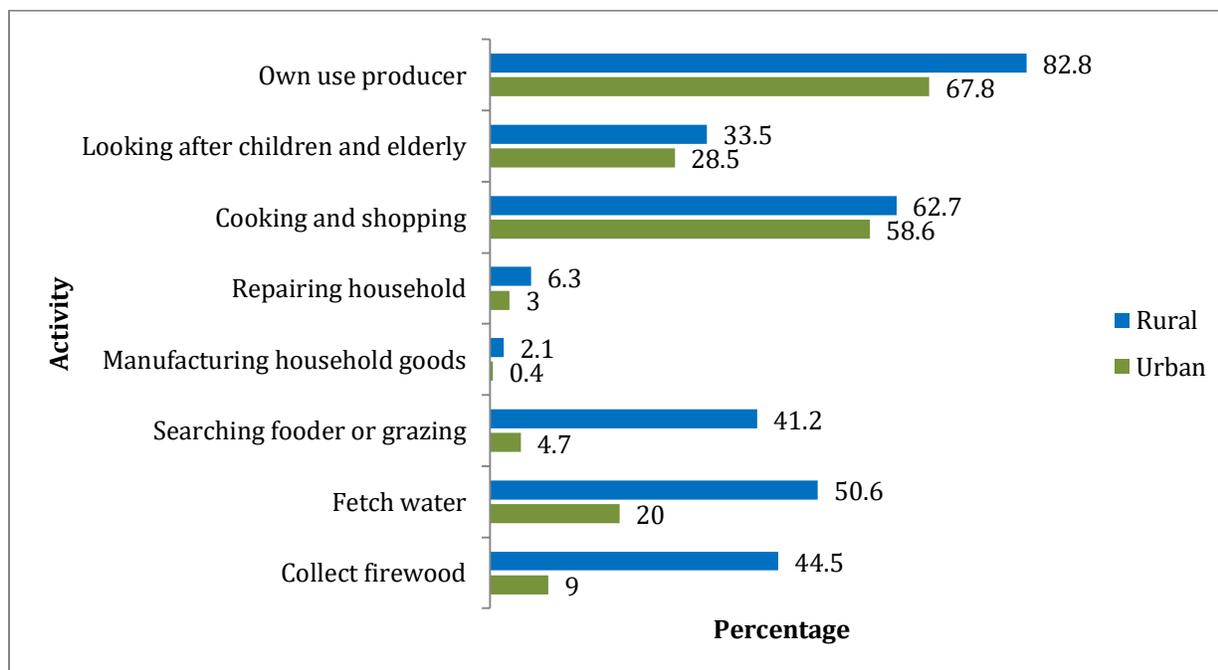


Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Considering the area of residence, own use services activity was predominant in rural area (85.4 percent) as compared to urban areas (14.6 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 cooking and shopping, looking after children and fetching water.

Figure 10. 3: Proportion of working age population engaged in Own use production of services by residential area and activity

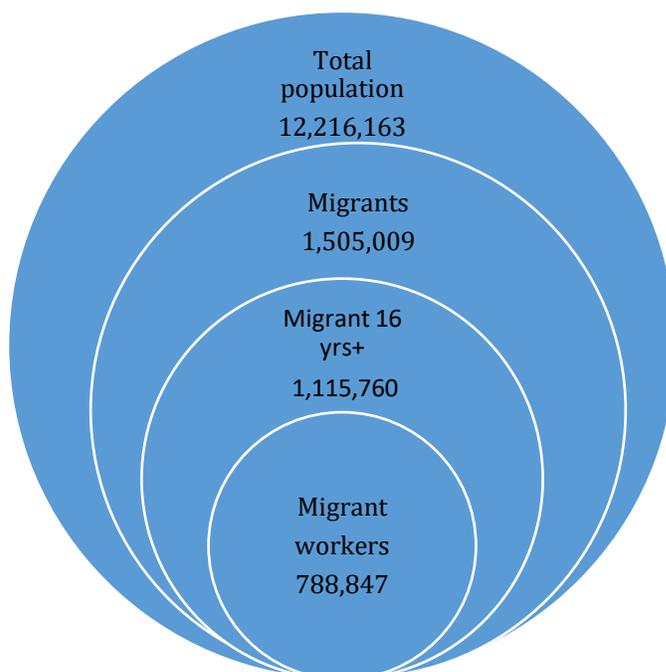


Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Chapter 11: Migrant workers

A migrant was defined to be any current resident, member of a private household in Rwanda of working age 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 of working age who was engaged in an employment for pay or profit or were unemployed in the current area of residence. According to the results of the LFS 2019 shown in Figure 11.1 below, the stock of the migrant population at the time of the survey was 1,505,009 persons, representing 12.3 percent of the total population. Among them, an estimated 788,847 were migrant workers (16 years and above).

Figure 11. 1: Size of the migrant and migrant workers populations



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The migrant population includes the internal migrants and the international migrants. Similarly, the migrant workers include 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 and were classified as employed or unemployed. The majority of the migrants were internal migrants (1,412,204) and the international migrants were 92,804. The share of international migrants in total population of Rwanda (0.8 percent) remains significantly lower than the world average (4.2 percent).¹⁴

¹⁴ 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, 2018.

There were relatively the same proportion of male and female among internal migrants of working age (16 years old and over), 50.8 percent for women and 49.2 percent for men (while it is higher among male (56.4percent) than female (43.6percent) among international migrants).

The percentage of international migrants of working age living in the urban areas was significantly higher than the national average. The proportion of international migrants in urban areas was around 48.7 percent, but it was lower than that of rural area for internal migrants (53.6percent).

Table 11.1 shows the distribution of working age 16 years old and over internal migrants from the province prior residence to the province of current residence, and Table 11.2 shows the distribution of working age population (16 years old and above) among international migrants from the country of prior residence to the province of current residence.

Table 11. 1: Province of last move and province of current residence of internal migrants

		Province of current residence					
		Kigali	South	West	North	East	Total
Province of last move	Kigali	137,756	69,355	25,899	25,447	62,288	320,745
	South	125,599	77,108	15,214	8,167	30,049	256,138
	West	64,515	16,493	56,595	13,666	15,780	167,048
	North	40,287	4,892	8,084	27,285	39,493	120,042
	East	74,213	18,690	14,378	12,592	69,326	189,200
	Total	442,370	186,539	120,171	87,158	216,936	1,053,174

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

The diagonal elements highlighted in the Table 11.1 show that around 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 368,070 corresponding to 34.9 percent of the working age population internal migrant. The majority or about two-third of the working age internal migrants moved from one province to another. From the off-diagonal elements of Table 11.1, one can observe that the migration corridor with the largest movement was from the Southern Province to the City of Kigali (125,599 migrants), followed by the movement from the Eastern Province to the City of Kigali (74,213) and the movement from the city of Kigali (69,355) to the Southern Province.

It is worth important to note that the City of Kigali was a major destination as well as a major province of origin of migrant workers. Around 42.0 percent of the internal migrants currently reside in the City of Kigali. Similarly, around a quarter (30.5 percent) of the working age 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 East Province was the second pole of attraction as a destination Province while the South Province was the second highest migrant-sending Province after the City of Kigali.

Table 11. 2: Country of last move and current residence of international migrants

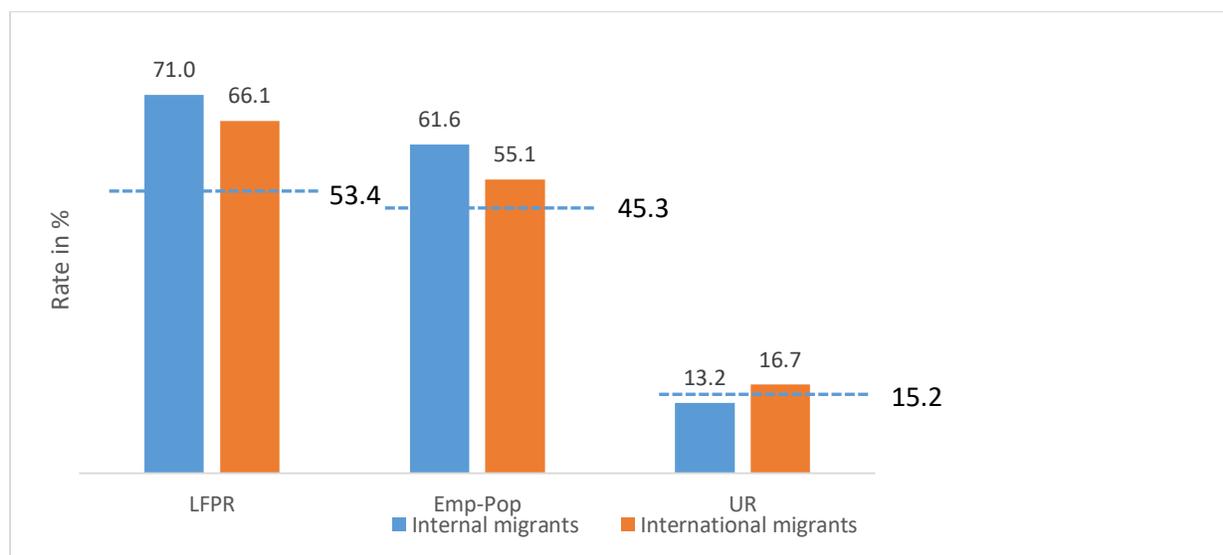
		Province of current residence					
		Kigali	South	West	North	East	Total
Country of last move	Burundi	7,444	4,534	1,028		1,001	14,008
	Congo-Kinshasa	2,599	1,969	6,715	1,681	823	13,786
	Kenya	2,248	130	170			2,548
	Tanzania	1,926	517			3,050	5,494
	Uganda	6,512	2,865	2,204	6,235	2,935	20,750
	Rest of Africa	1,176	492	249	333		2,250
	Other countries	3,156	257	337			3,750
	Total	25,061	10,765	10,703	8,248	7,809	62,586

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

In terms of international migration, most migrants of working age were coming from Uganda, and Burundi (33.1 and 22.4 percent, respectively), followed by Congo-Kinshasa DRC (22.0 percent) and Tanzania (8.7 percent). The City of Kigali was the province of destination of the highest number of international migrants (40.0 percent) followed by the South (17.2 percent) and West province (17.1 percent).

Figure 11.2 shows the summary indicators of the labour force status of internal and international migrants according to the results of the RLFS 2019.

Figure 11. 2: Labour force status of internal and international migrants.



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

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 71.0 percent and that of the international migrants was 66.1 percent, both significantly higher than the overall labour force participation rate (53.4 percent). Similarly, the employment-to-population ratio of internal migrants (61.6 percent) and that of the international migrants (55.1 percent) were higher than the overall employment-to-population ratio of the country (45.3 percent). On contrary, the unemployment rate of internal migrant workers (13.2 percent) was below the national unemployment rate (15.2 percent) while the unemployment rate for international migrant workers (16.7 percent) was higher than the national unemployment rate.

These results are in line with expectation as migration is often motivated by economic and labour market factors. According to the results of the 2019 LFS, the main reason to move from the previous place of residence of the recent working age migrants was Coming back in country/building/Renting (20.2 percent of working age migrants) closely followed by looking for work (17.4 percent) found job was third (16.6 percent). Living with relatives, Marriage and Parents moved, were next in relative size (12.0, 8.6 and 8.5 percent respectively).

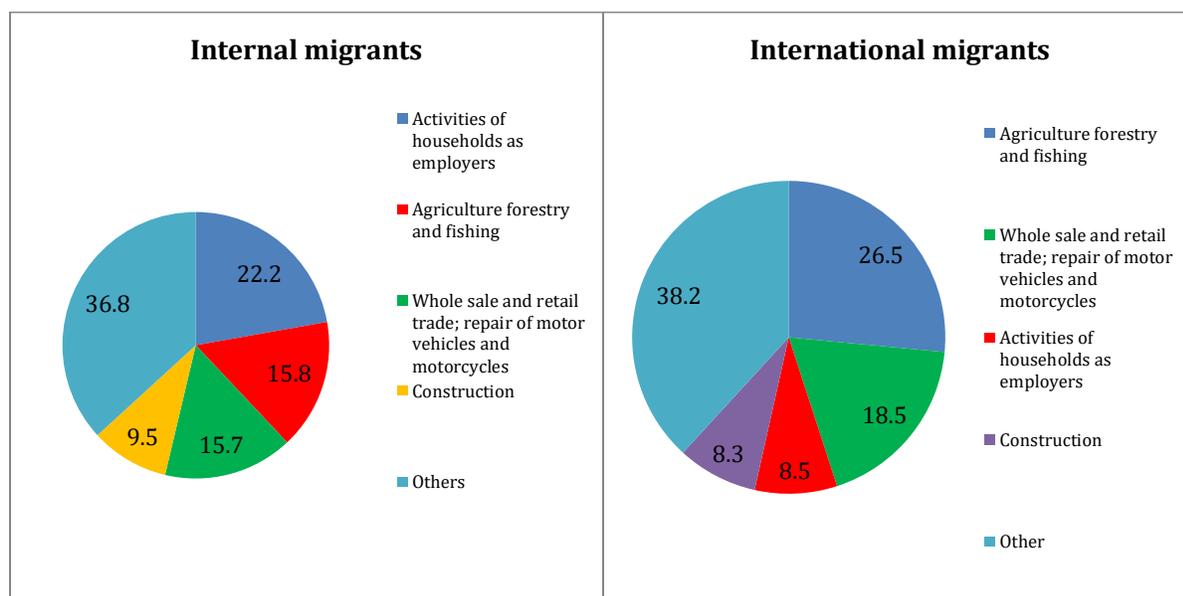
It is also instructive to note that the unemployment rate was lowest (about 1.2 to 8.8 percent) among migrant who moved from their previous place of residence because of employment reason such as Found job, job transfer or looking for employment; (about 15.1 to 30.8 percent) among those who moved for personal reasons such as divorce, marriage, attending school. Correspondingly, the employment-to-population ratio was highest among migrants 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 Tables 50-52 of the Statistical Annex C. One particular result that should be mentioned here is the very high employment-to-population ratio (95.3 percent) and the relatively low unemployment rate (1.2 percent) of migrants whose main reason of migration was Find a job. This result means that many of these migrants keep their employment following their move, although not all.

The structure of employment among migrant workers in terms of branch of economic activity is shown in figure 11.3 for both internal and international migrants. The branch of economic activity with the highest number of internal migrants was activities of households as employers (21.2 percent) compared with the national share of persons engaged in households as employers (5.8 percent). The results show also that the percentage of agriculture employment among the internal migrant workers (17.3 percent) was lower as compared to the national average (39.0 percent).

The shares of internal migrants engaged in agriculture, fishing and forestry was 22.2 percent and those in wholesale and retail trade and motor vehicle repair (15.8 percent) and in construction (9.5 percent) are about the same as the corresponding national average (14.8 and 9.6 percent respectively), suggesting that migrant workers in these two branches of economic activity were engaged in the same activity prior and after migration.

Figure 11. 3: Employed migrant workers by branch of economic activity.



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Turning to international migration, the data show that the international migrant workers were mostly engaged in agriculture, forestry and fishing (26.5percent), in wholesale and retail trade and motor vehicle repair (18.5 percent), activities of households as employers (8.5 percent) and construction (8.3 percent) . In the branches of economic activity presented in figure 11.3 the share of international migrant workers was higher than the corresponding national share of employment in ‘Agriculture, forestry and fishing’.

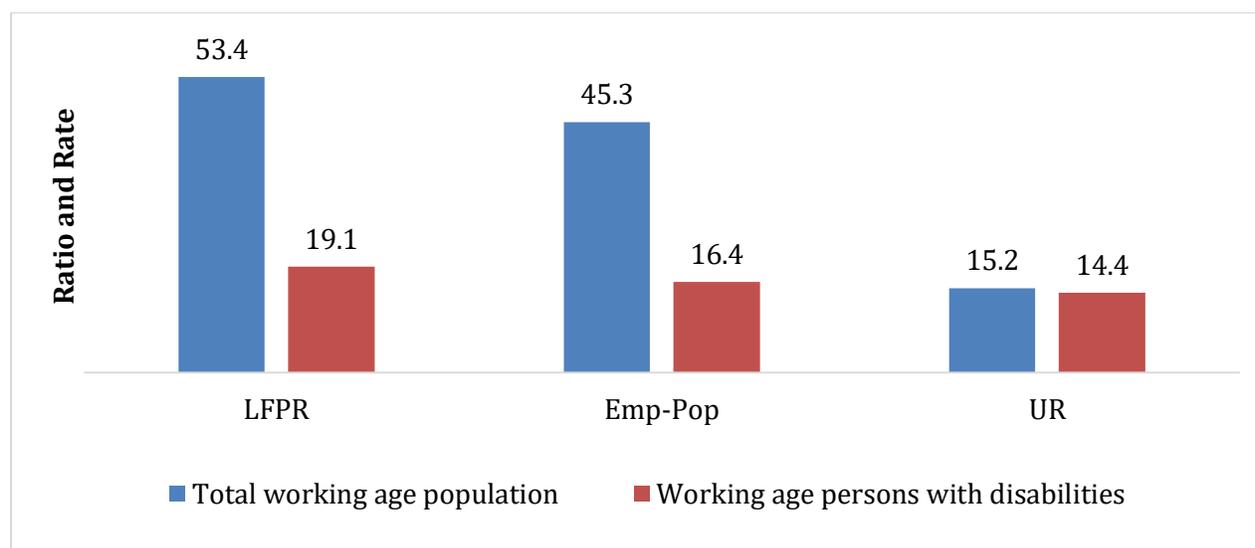
According to the 2019 LFS, the proportion of internal migrants of working age, engaged in subsistence foodstuff production, not counted in labour force was 30.2 percent. The proportion among the international migrants was 22.6 percent. Both figures are considerably lower than the corresponding national percentage of 50.3 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 of employment work as well as subsistence foodstuff production work.

Chapter 12: Workers with disabilities

The National Institute of Statistics of Rwanda adopted the recommendation of the UN formed Washington Group on Disability Statistics, the Rwanda labour force survey has been using the recommended abridged questionnaire 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 towards the achievement of the SDGs.

Figure 12.1 compares the main labour market indicators for persons aged 16 years and above with disabilities and the corresponding indicator for the working age population at large. The results show that 19.1 percent or almost one-fifth of the working age persons with disabilities were labour force participants. The corresponding rate for the working age population at large among persons without disability was 53.4 percent. About sixteen percent (16.4 percent) of the working age persons with disabilities are engaged in work for pay or profit. The corresponding rate for the working age population at large was 45.3 percent among persons without disability.

Figure 12. 1: Main labour force indicators: Working age persons with disabilities versus working age population at large.



Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

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 2019 LFS show that the unemployment rate of persons with disabilities is 0.8 percentage point lower than the unemployment rate at national level (15.2 percent versus 14.4 percent).

The analysis of employment status of the working age persons with disabilities by type of disability (presented in Table 5 of the Statistical Annex) shows that the employment-to-population ratio is highest among persons with hearing impairment (19.8 percent) and lowest among persons with

difficulty in washing all over and dressing 4.6 percent). Unemployment rate is lowest among persons with difficulty in washing and dressing disability (1.8 percent) while is higher among persons with remembering impairment (18.1 percent). Labour force participation rate is lowest among persons with difficulty in washing all over and dressing (4.6 percent) reflecting their age pattern.

Annex A: Main concept 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).¹⁵ 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.

- **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

¹⁵ILO, *Resolution concerning statistics of work, employment and labour underutilization*, 19th International Conference of Labour Statisticians, Geneva, October 2013.

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.¹⁶ 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.

- **Time-related underemployment**

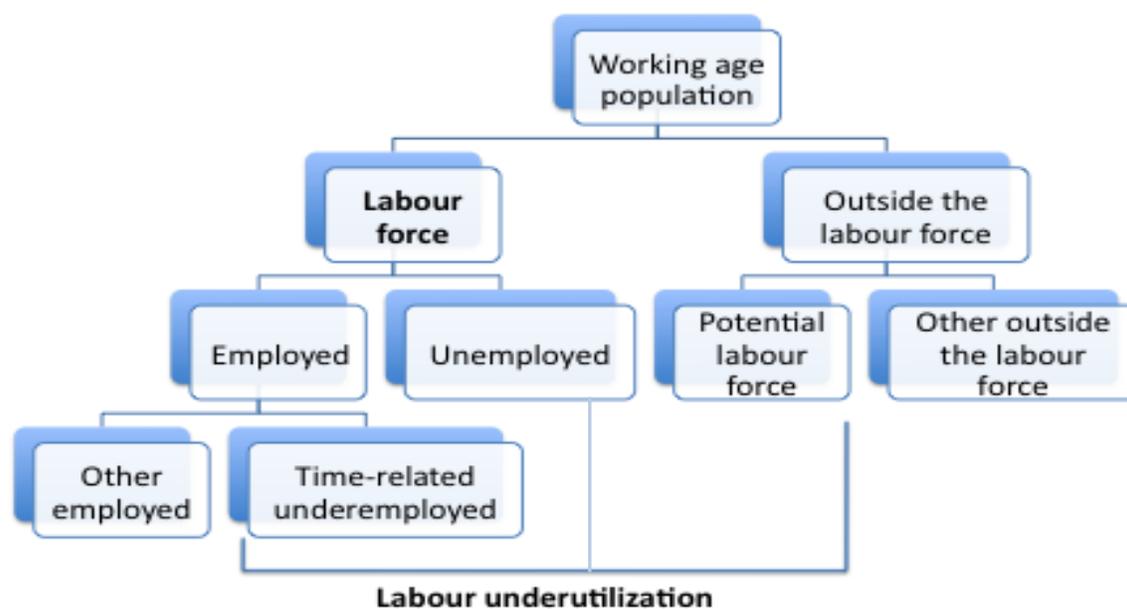
Persons in time-related underemployment are defined as all persons in employment who, during a specified reference period, (a) wanted to work additional hours, (b) whose working time in all jobs was less than a specified hours threshold, and (c) who were available to work additional hours given an opportunity 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.

¹⁶ ILO, *Resolution concerning statistics of the economically active population, employment, unemployment and underemployment*, adopted by the 13th International Conference of Labour Statisticians, Geneva, 1982.

- **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 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 four points in time. The sample is designed such that the survey provides for:

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

The timing of the quarter 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 May , August, and November respectively. This approach is in line with the international standards that recommend a national data collection strategy that allows reporting “on a quarterly basis, main aggregates of employment, labour force, labour underutilization, including unemployment, in order to monitor short-term trends and seasonal variations.”

An annual survey with the sample spread over four 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 quarterly 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 quarterly 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.¹⁷ Similar calculations for employment gave a sample size requirement of 18,792 households.

The Labour Force survey programme begun with a pilot survey conducted in February 2016. The first round of the survey was conducted in August 2016, and continued on bi-annual basis until August 2018. Since the year 2019, the survey was re-designed to provide estimates of the labour market aggregates on quarterly basis. The sample size in each quarter is about 4668 households, composed of three rotation groups marked with the symbol r in the table. The proposed rotation design is 1-1-1, that is each sample household is interviewed three times, once every two quarters. Accordingly, a sample household is in the sample in one quarter, leaves the sample in the next quarter, returns in the sample in the following quarter, leaves again the sample in the subsequent quarter, and finally returns in the sample for the third time before leaving the sample altogether.

- **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.

¹⁷For 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

1. Proposed Quarterly Redesign: Rwanda LFS

Aug '16	Feb '17	Aug '17	Feb '18	Aug '18	Feb '19	May '19	Aug '19	Nov '19	Feb '20	May '20	Aug '20	Nov '20
1												
2	2											
3	3	3										
4	4	4	4									
	5	5	5	5								
		6	6	(6+7)/3	r1							
			7	(6+7)/3		r2						
				(6+7)/3	r3		r3					
				(8+9)/3		r4		r4				
					(8+9)/3		r5		r5			
						(8+9)/3		r6		r6		
							(10+11)/3		r7		r7	
								(10+11)/3		r8		r8
									(10+11)/3		r9	
										(12+13)/3		r10

Quarterly sample size =
 $3 \times 2 \times 146 \times 16 / 3 = 4672$
 (4608)

Sample size Aug '18
 $[146 + 8 \times 48 / 3] \times 16 = 8480$

Supplement sample:
 Sample-take for $(8+9)/3 = 24$ hsls
 Labelling Nov'18 : r2 and r4

An implication of these modifications is a slight reduction of the sample size in August 2018 to ensure smooth transition to the sample size requirement of the quarterly design which must be multiple of 48 (=3x16), due to the transition from four to three visits per household and the maintenance of the sample-take of 16 households per PSU. The sample of the August 2018 survey has been supplemented by considering a sample-take of 24 households per PSU in one-third of the rotation groups 8 and 9 of the previous bi-annual design.

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

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 is obtained on the basis of the square-root allocation.

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 288 sample enumeration areas in each round. The sample was drawn in each district by probability proportional to size (pps) from the sampling frame.

The sample selection of PSUs has been carried out on the basis of the PSUs already selected under the bi-annual survey design. Thus, a sample of 144 PSUs have been selected from the 146 PSUs already designated for the August 2018 survey and what would have been the bi-annual February 2019 survey (old rotation groups 8 and 9). These PSUs have been randomly divided into three equal parts of each 46 PSUs, to serve for the new sample PSUs for introduction in the three consecutive quarters, August 2018, February 2019, and May 2019. Similarly, another sample of 144 PSUs have been selected from the 146 PSUs already designated for what would have been the bi-annual August 2019 and February 2020 survey (old rotation groups 10 and 11). These PSUs have then been randomly divided into three equal parts of each 46 PSUs, to serve for the new sample PSUs for introduction in the three consecutive quarters, August 2019, November 2019 and February 2020.

- **Selection sample households**

The sample enumeration areas were freshly listed prior to selection of the final sample of households. For each quarter, 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. In order to keep almost the same number of households, the sample size in each quarter was about 4,668 households, composed of three rotation groups marked with the symbol r in the table1.

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 was developed to capture the information categorized 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

$$p(hh_k) = \frac{16}{N_k^1}$$

where 16 is the fixed sample-take in enumeration area k and N_k^1 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,

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

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.

The sampling weights for the quarterly LFS are calculated as a function of the weights calculated earlier for the bi-annual survey, called here "Oldweight" as described above. The Qweight is obtained from the Oldweight as follows,

$$Qweight = Oldweight \times \frac{3}{4} \times \frac{1}{\frac{144}{146}} \times \frac{1}{3} = Oldweight \times \frac{219}{96}$$

where $\frac{3}{4}$ takes account of the fact that under the old bi-annual design there were 4 rotation groups per round and under the new quarterly design there are 3 rotation groups per round; the ratio 144/146 corresponds to the probability of selection of the new PSUs from the set of old PSUs; and, finally, 1/3 refers to the probability of selection when the new PSUs are randomly divided into three equal parts.

Finally, the adjusted weights were calibrated to known population projections for four demographic groups: Males and females population less than 16 years old and males and females 16 years old and over living on private households

The population projections were derived from the NISR census publication.¹⁸ 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.¹⁹ Accordingly, the final calibrated weights were obtained from the formula,

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

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 2018 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
- 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

¹⁸ National Institute of Statistics of Rwanda, *Fourth Population and Housing Census, Rwanda, 2012, Thematic Report Population Projections*, January 2014.

¹⁹ Deville, J.C., and Sarndäl, C.E., "Calibration Estimators in Survey Sampling," *Journal of the American Statistical Association*, Vol. 87, 1992, pp. 376-382.

- 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 and February 2017 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 previous LFS rounds.

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;²⁰ 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)

Subsistence foodstuff producer (sub)

Employment in informal and formal sector (IS and FS)

Informal and formal employment (IE and FE)

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

²⁰ NISR, *Rwanda Labour Force Survey, Interviewers Manual (RLFS, 2016)*, National Institute of Statistics of Rwanda, Kigali, December 2015. Revised for the RLFS, August 2016.

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

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

Migrant worker (migrant)

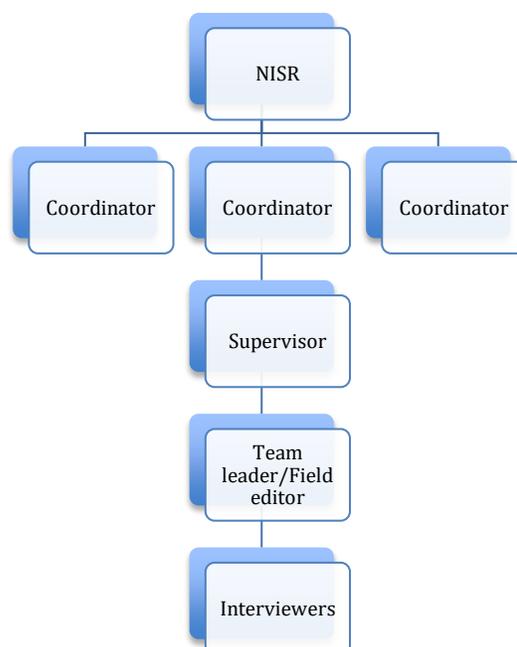
Worker with disability (disable)

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 of Tablets.

The following diagram shows the field organization of the survey. It consisted of 2 coordinators, coordinating the work of 10 supervisors, 24 team leaders and 96 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



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 February , May, August and November, each month from the beginning of the month up to the end of the month during the year 2019. Listing was conducted at the same time as data collection in Kigali city and others District 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.²¹ Finally, procedures were developed for selecting sample households from the list as part of the field operations.²²

The new 9 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

As well as from the previous year, data were collected using computerized assisted interview (CAPI). Data was uploaded to NISR main office from field via wireless network channel by synchronizing every day with the NISR server. It was carried every day to have a daily back up of data. All the activity of codification were also done to the field by interviewers who were trained. Several questions with textual responses were pre-coded and tabled in cascaded way. 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. ²³ 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 child greater than age of head of household using developed batches of controlling inconsistency in CsPro and Stata. 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

²¹ National Institute of Statistics of Rwanda, *Manual for Household Listing, Rwanda Pilot Labour Force Survey (RLFS-P 2016)*, NISR, Kigali, February 2016.

²² 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.

²³ 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.

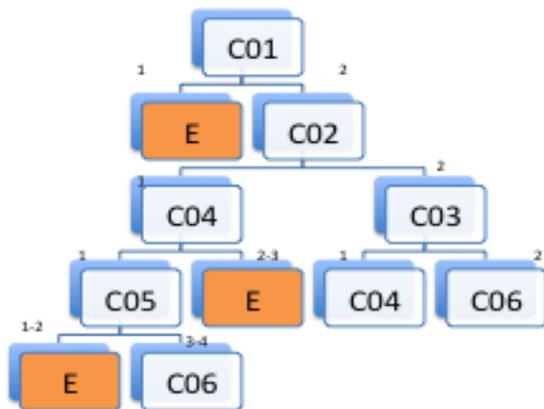
National Institute of Statistics of Rwanda, *Customized International Standard Classification of Education (ISCED 97)*, The Rwanda Classification Manual, 2012 edition.

actually worked at all jobs, status in employment at main job, etc. The detected errors were directly sent back to the field for the correction by the interview.

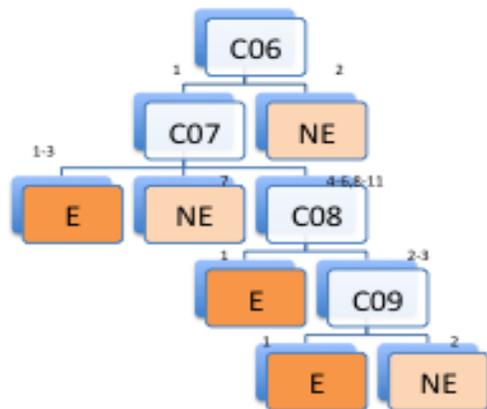
As part of data processing, the data file was augmented by adding a field on sampling weights (weight) and a series of additional fields on derived variables constructed on the basis of the information on each record. Some examples of the construction of the derived variables is schematically shown in 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)

Employed, at work

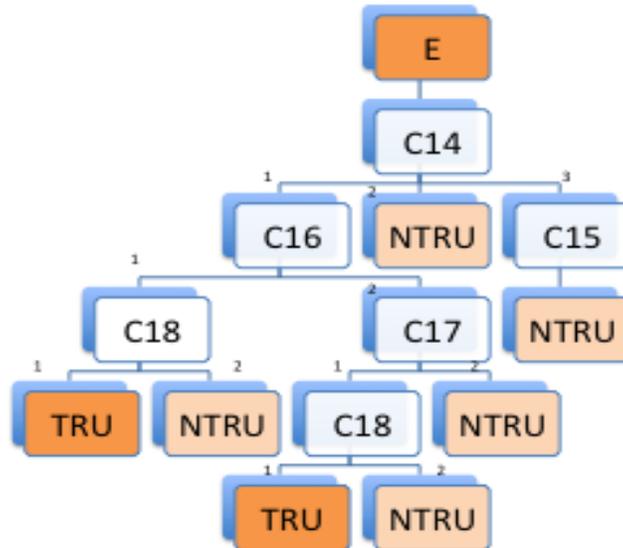


Employed, not at work



E = Employed
NE = Not employed

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

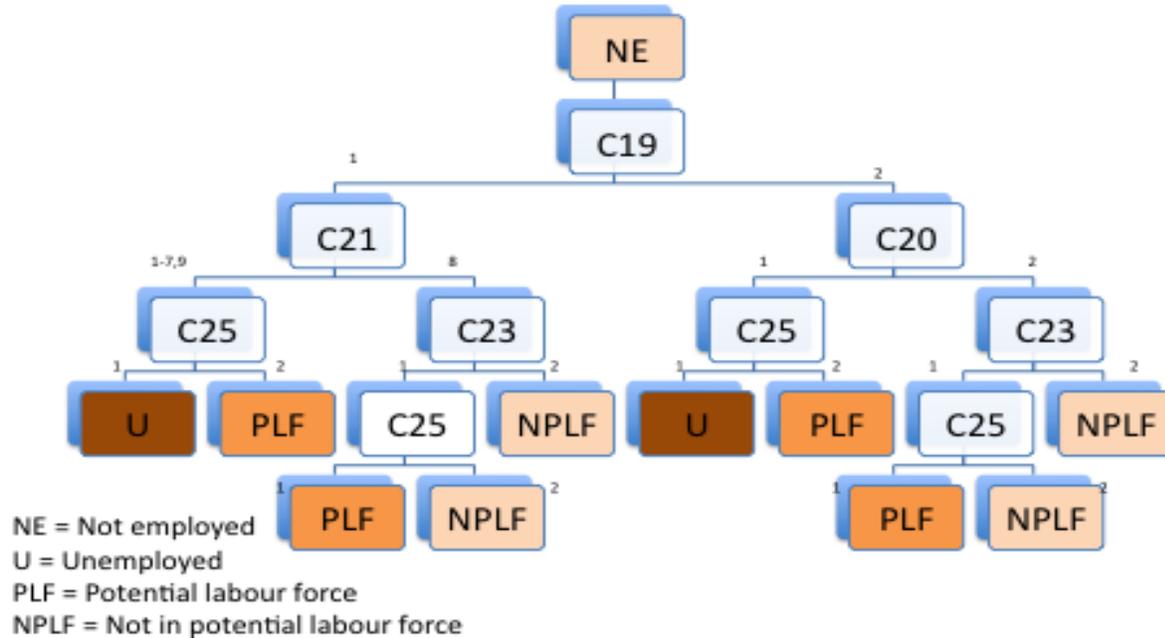


E = Employed

TRU = Time-related underemployed

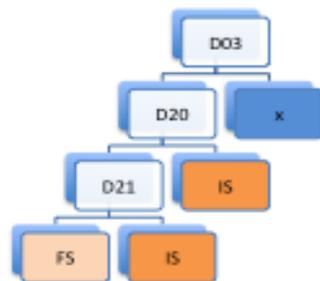
NTRU = Not time-related underemployed

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



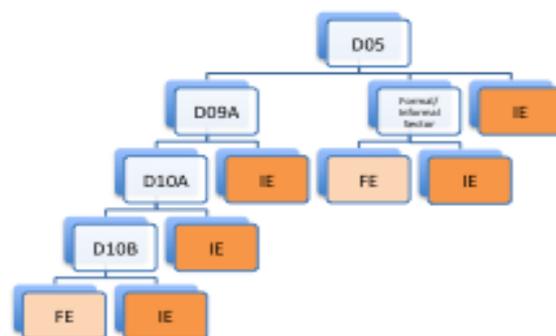
B.4 Derived variables: Informal sector (IS) and informal employment (IE) at main job

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 /12 if D13=5
		D12=2,3, 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

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.

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 66 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 has introduced tablets for data collection, and incorporated an 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 2019 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 2018. 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 24. The calculations took into account the fact that the sampling weights 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 AUG 2018 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	7,231,536	99,648	1.4%	7,036,018	7,427,054
Labour force	3,862,799	60,900	1.6%	3,743,308	3,982,290
Employment	3,273,921	52,967	1.6%	3,169,995	3,377,847
Unemployment	588,878	15,859	2.7%	557,761	619,995
Outside labour force	3,368,737	54,460	1.6%	3,261,882	3,475,593

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

As an illustration of the use of the table, consider the second row of the table on the labour force. The total labour force, 3,862,799 is estimated with a relative standard error of 1.6 percent. The true value at 95 percent confidence level lies within the interval 3,743,308 and 3,982,290. Similarly, it can be stated that the total number of unemployed persons, 588,878 is estimated with a relative standard error of 2.7 percent. And, the true value at 95 percent confidence level lies within the interval 557,761 and 619,995.

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 15.2 percent has a standard error of 0.3 percentage points. This may be interpreted to mean that

²⁴Verma, Vijay, *Sampling Methods*, Manual for Statistical Trainers Number 2, Statistical Institute for Asia and the Pacific (SIAP), Tokyo, Revised 2002.

the true unemployment rate lies with 95 percent confidence within the interval, 14.6 to 15.9 percent.

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

Indicator	Estimate	Standard error	Confidence interval	
			Lower	Upper
Labour Force Participation Rate	53.4	0.4	52.6	54.2
Employment-Population Ratio	45.3	0.4	44.5	46.1
Unemployment rate	15.2	0.3	14.6	15.9

- Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

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	63,000	1.3%	4874000	5126000
2,500,000	37,000	1.5%	2426000	2574000
1,000,000	20,000	2.0%	960000	1040000
500,000	14,000	2.8%	472000	528000
250,000	9,000	3.6%	232000	268000
100,000	6,000	6.0%	88000	112000
50,000	4,000	8.0%	42000	58000
25,000	3,000	12.0%	19000	31000
10,000	2,000	20.0%	6000	14000

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Thus, an estimate about 5,000,000 has an approximate standard error of 63,000 with a confidence interval at 95% level between 4,874,000 and 5,126,000. Similarly, an estimate of about 500,000 has an approximate standard error of 14,000 with a confidence interval between 472,000 and 528,000. 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 20 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.

- **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. The non response rates for all February, May, August and and November round 2019 have been less than 2 percent.

- **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.²⁵ 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.

- **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 380 distinct 4-digit occupation codes and 328 distinct 4-digit

²⁵National Institute of statistics of Rwanda, *Integrated Business Enterprise Survey*, NISR 2014.

industry codes. The percentage of employed persons who were coded with codes ending with the digit “9” was 7.1 percent for occupation and 11.9 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. The number of codes ending with “9” was increased during the current round as compared to the previous round. This increase may be attributed to the fact that the coding is done directly by enumerators during the data correction while it was done in the office by few coders in the previous surveys.

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

	Occupation (ISCO-08)	Branch of economic activity (ISIC Rev 4)
February 2019		
Distinct 4-digit codes	283	234
Number of employed persons coded in with 4-digit codes ending with “9” (non-weighted)	20	23
Total number of employed persons (non-weighted)	5,410	5,410
Percent	7.1 %	9.8 %
May 2019		
	Occupation (ISCO-08)	Branch of economic activity (ISIC Rev 4)
Distinct 4-digit codes	289	253
Number of employed persons coded in with 4-digit codes ending with “9” (non-weighted)	19	31
Total number of employed persons (non-weighted)	6,312	6,312
Percent	6.6%	12.3%
August 2019		
	Occupation (ISCO-08)	Branch of economic activity (ISIC Rev 4)
Distinct 4-digit codes	276	222
Number of employed persons coded in with 4-digit codes ending with “9” (non-weighted)	15	28
Total number of employed persons (non-weighted)	5,284	5,284
Percent	5.4%	12.6%
November 2019		
	Occupation (ISCO-08)	Branch of economic activity (ISIC Rev 4)
Distinct 4-digit codes	293	251
Number of employed persons coded in with 4-digit codes ending with “9” (non-weighted)	22	28
Total number of employed persons (non-weighted)	6,345	5,284
Percent	7.6%	12.2%

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey, 2019

Overall, the quality assessment of the results of the LFS 2019 shows acceptable levels of sampling errors and non-response errors.

Annex C: Statistical tables

Table C. 1 Summary labour force indicators, RLFS 2019

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Population 16 years old and over	7,231,536	3,394,437	3,837,100	1,479,241	5,752,295	3,250,836	3,980,701
Labour force	3,862,799	2,132,952	1,729,847	990,547	2,872,252	1,557,661	2,305,138
- Employed	3,273,921	1,838,353	1,435,568	839,040	2,434,881	1,248,454	2,025,467
- Unemployed	588,878	294,599	294,279	151,507	437,371	309,207	279,671
Outside labour force	3,368,737	1,261,485	2,107,253	488,694	2,880,043	1,693,175	1,675,563
Labour underutilization	3,009,064	1,270,641	1,738,423	448,714	2,560,351	1,871,211	1,137,854
- Unemployed	588,878	294,599	294,279	151,507	437,371	309,207	279,671
- Time-related underemployed	877,637	430,994	446,643	100,864	776,773	507,859	369,778
- Potential labour force	1,542,549	545,048	997,501	196,343	1,346,207	1,054,145	488,405
Labour force participation rate (%)	53.4	62.8	45.1	67.0	49.9	47.9	57.9
Employment-to-population ratio (%)	45.3	54.2	37.4	56.7	42.3	38.4	50.9
Time related underemployment rate (%)	26.8	23.4	31.1	12.0	31.9	40.7	18.3
LU1 - Unemployment rate (%)	15.2	13.8	17.0	15.3	15.2	19.9	12.1
LU2 - Combined rate of unemployment and time-related underemployment (%)	38.0	34.0	42.8	25.5	42.3	52.5	28.2
LU3 - Combined rate of unemployment and potential labour force (%)	39.4	31.4	47.4	29.3	42.3	52.2	27.5
LU4 - Composite measure of labour underutilization (%)	55.7	47.4	63.7	37.8	60.7	71.6	40.7
Youth unemployment rate (16-30 yrs) (%)	19.4	16.9	22.4	19.1	19.6	26.1	16.1
Median monthly earnings at main job	21,667	26,000	18,200	52,000	20,800	18,200	30,000

Table C. 2 Population by sex and age group, RLFS 2019

	Total	Male	Female
Population	12,216,163	5,889,573	6,326,591
0-4 yrs	1,619,325	815,004	804,320
5-9 yrs	1,517,305	748,773	768,531
10-14 yrs	1,546,847	784,694	762,153
15-19 yrs	1,453,188	714,424	738,764
20-24 yrs	1,056,420	507,699	548,721
25-29 yrs	912,640	425,069	487,571
30-34 yrs	867,504	430,074	437,430
35- 39 yrs	768,492	368,957	399,535
40-44 yrs	552,010	259,631	292,379
45-49 yrs	444,760	201,342	243,418
50-54 yrs	342,829	159,903	182,925
55-59 yrs	345,650	144,608	201,042
60-64 yrs	277,400	122,176	155,224
65-69 yrs	201,252	85,358	115,894
70-74 yrs	123,836	50,131	73,704
75+	186,705	71,728	114,977

Table C. 3 Households by household size, sex of head of household and urban/rural area, RLFS 2019

Household size	Total number households	Head of household		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
	2,855,960	2,106,460	749,499	547,603	2,308,357	1,385,040	1,470,920
1	282,222	163,986	118,237	90,029	192,194	89,585	192,638
2	346,531	175,326	171,204	80,449	266,082	150,643	195,888
3	470,380	314,158	156,223	81,334	389,046	234,014	236,366
4	500,519	376,663	123,856	77,251	423,268	252,315	248,203
5	475,554	387,535	88,019	73,626	401,928	248,426	227,128
6	364,963	317,243	47,720	59,367	305,596	196,203	168,760
7	217,203	189,978	27,225	41,284	175,918	119,032	98,171
8	111,993	102,455	9,538	21,772	90,221	54,431	57,562
9	46,236	42,154	4,082	13,227	33,009	21,352	24,884
10+	40,360	36,963	3,397	9,263	31,097	19,040	21,320

Table C. 4 Disabled persons by sex, age group, urban/rural area and type of disability, RLFS 2019

Type of disability	Total	Male	Female	Urban	Rural	5-15 yrs	16+ yrs
Total disabled persons	332,192	144,806	187,386	36,804	295,388	291,486	291,486
- Seeing	89,431	35,132	54,300	11,107	78,324	10,162	79,270
- Hearing	54,447	24,203	30,243	4,778	49,669	7,885	46,562
- Walking	150,403	63,670	86,733	16,090	134,312	12,199	138,204
- Remembering	81,587	36,352	45,235	7,679	73,908	9,889	71,699
- Washing, dressing	48,030	21,146	26,884	6,583	41,447	8,995	39,035
- Communicating	32,943	17,615	15,328	5,210	27,733	13,244	19,699

Table C. 5 Disabled working age persons by labour force status and type of disability, RLFS 2019

Type of disability	Total	Employed	Unemployed	Outside labour force	LFPR	Emp-Pop	UR
Disabled working age persons (16+ yrs)	291,486	47,531	7,908	236,047	19.0	16.3	14.3
- Seeing	89,431	13,978	2,116	63,176	20.3	17.6	13.1
- Hearing	54,447	9,215	1,617	35,730	23.3	19.8	14.9
- Walking	150,403	17,432	1,870	118,902	14.0	12.6	9.7
- Remembering	81,587	9,025	2,012	60,662	15.4	12.6	18.2
- Washing, dressing	48,030	1,748	34	37,253	4.6	4.5	1.9
- Communicating	32,943	3,066	992	15,642	20.6	15.6	24.4
Note: Details may not add to totals because disabled persons may be reporting more than one type of disability.							

Table C. 6 Population 16 years old and over by education status and urban/rural area, RLFS 2019

	Total	Sex		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Total	7,231,536	3,394,436	3,837,100	1,479,242	5,752,294	3,250,836	3,980,701
Currently studying	813,475	429,199	384,276	241,282	572,193	84,612	728,863
Not Currently studying	6,418,062	2,965,237	3,452,824	1,237,960	5,180,101	3,166,224	3,251,838

Table C. 7 Population 16 years old and over by sex, level of educational attainment and urban/rural area, RLFS 2019

	Total	Sex		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Total	7,231,536	3,394,436	3,837,100	1,479,242	5,752,294	3,250,836	3,980,701
None	3,494,517	1,567,681	1,926,836	323,597	3,170,921	1,954,314	1,540,203
Primary	2,167,832	1,036,191	1,131,642	383,765	1,784,068	1,044,448	1,123,384
Lower secondary	611,268	292,408	318,860	211,863	399,405	121,635	489,633
Upper secondary	640,907	314,282	326,626	322,126	318,782	108,461	532,446
University	317,011	183,874	133,137	237,892	79,119	21,978	295,034

Table C. 8 Population 16 years old and over with respective field of education by sex, urban/rural area, RLFS 2019

	Total	Sex		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Total	7,231,536	3,394,436	3,837,100	1,479,242	5,752,294	3,250,836	3,980,701
General program	4,971,128	2,407,286	2,563,842	731,008	4,240,121	2,515,477	2,455,651
Education	125,658	61,295	64,363	42,038	83,620	26,803	98,854
Humanities and arts	99,167	48,592	50,575	35,348	63,818	21,970	77,197
Social sciences, business and law	326,086	138,377	187,709	230,393	95,692	25,940	300,146
Science	429,266	208,553	220,713	172,325	256,942	73,670	355,596
Engineering, manufacturing and construction	166,795	140,297	26,498	96,453	70,342	12,509	154,286
Agriculture	45,403	28,226	17,177	20,786	24,617	9,626	35,777
Health and welfare	70,776	30,903	39,873	47,632	23,144	5,510	65,266
Services	49,222	14,853	34,369	35,276	13,946	1,917	47,305
No Education	948,036	316,054	631,982	67,983	880,052	557,414	390,622

Table C. 9 Population 16 years old and over in trade/attended or training courses by sex, duration of training, and urban/rural area, RLFS 2019

	Total	Sex		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Total	1,189,564	641,859	547,704	375,043	814,521	436,299	753,265
Less than One month	8,353	3,585	4,768	904	7,449	3,410	4,943
1-3 months	139,954	62,016	77,938	28,455	111,499	66,072	73,882
3-6 Months	237,978	105,725	132,253	67,804	170,174	93,716	144,262
One Year	343,484	178,490	164,993	103,552	239,931	130,374	213,110
Two Years	144,543	86,198	58,345	41,399	103,144	52,922	91,621
Three years or more	315,252	205,845	109,407	132,929	182,323	89,805	225,448

Table C. 10 Population 16 years old in/attended trade and technical training by sex, technical skills, and urban/rural area, RLFS 2019

Technical skills learned	Total	Sex		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
	1,189,564	641,859	547,704	375,043	814,521	436,299	753,265
Masonry	247,370	236,414	10,956	66,154	181,216	92,632	154,738
Carpentry	83,960	80,661	3,299	14,239	69,721	37,599	46,361
Automotive technology.	21,691	20,636	1,054	12,678	9,013	1,960	19,731
Culinary arts	63,770	17,385	46,384	36,309	27,461	13,422	50,348
Domestic Electricity	37,410	32,804	4,606	17,299	20,111	7,009	30,401
Welding	29,423	27,677	1,746	9,946	19,477	7,870	21,553
Plumbing	7,411	6,591	819	3,406	4,005	1,586	5,824
Food processing	2,586	1,247	1,338	2,126	459	420	2,165
Animal health	273	138	135	273	0	0	273
Auto- Electricity	2,873	2,378	495	1,101	1,771	366	2,507
Automotive body repair	70,511	68,352	2,159	29,130	41,381	11,868	58,642
Computer maintenance	8,653	6,693	1,961	5,029	3,624	946	7,707
Crop production	653	248	406	162	491	241	412
Engine mechanics	13,906	13,803	103	6,578	7,328	586	13,321
Music	1,708	1,387	321	1,368	340	0	1,708
Painting and decoration	7,872	6,258	1,614	3,025	4,847	1,517	6,356
Multimedia	1,148	1,148	0	1,148	0	0	1,148
Networking	3,907	3,733	174	3,146	761	0	3,907
Tailoring	379,988	35,471	344,517	85,092	294,896	188,353	191,635
Industrial electricity	3,869	3,303	566	2,622	1,247	1,169	2,699
Civil engineering	4,280	4,008	272	2,487	1,793	0	4,280
Nursery growing	1,138	781	357	62	1,076	703	435
Milk processing	330	330	0	221	109	0	330
Livestock	2,199	1,885	314	742	1,457	26	2,173
Horticulture production	68	68	0	68	0	0	68
Food & Beverage services	6,599	2,970	3,629	3,245	3,354	1,174	5,425
Front office	10,412	2,458	7,955	7,320	3,092	245	10,168
House keeping	163	0	163	163	0	0	163
Concrete masonry	569	239	330	239	330	330	239

Technical skills learned	Total	Sex		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Leather craft	5,578	3,262	2,317	2,168	3,410	768	4,811
Hairdressing	56,267	15,291	40,975	22,308	33,959	15,717	40,550
Biding and Jewelries	9,680	519	9,161	838	8,842	6,342	3,338
Software Development	7,307	4,641	2,666	4,767	2,540	361	6,946
NCDs and Palliative Care Community Health	459	216	243	216	243	243	216
Agriculture Mechanization	241	241	0	0	241	0	241
Agri-Business	3,317	2,477	841	234	3,084	2,011	1,307
Bee Keeping	471	471	0	0	471	0	471
Manicure and Pedicure	1,716	275	1,442	578	1,138	499	1,218
Beauty therapy	3,065	1,310	1,755	1,607	1,457	1,102	1,962
Screen printing	926	857	69	763	163	0	926
Sport and Medical Massage	693	651	42	412	281	360	333
Crochet embroidery	48,001	3,180	44,820	8,352	39,649	31,347	16,654
Pottery	2,339	846	1,492	947	1,391	554	1,785
Motor vehicle engine mechanics	13,525	13,242	283	6,470	7,055	2,296	11,229
Film making	4,681	2,974	1,707	2,710	1,971	74	4,607
Calligraphy	538	272	267	479	60	272	267
Typing(dactylography)	4,536	4,403	133	1,191	3,344	281	4,254
Driving	4,595	2,993	1,603	1,651	2,944	2,103	2,492
Other	6,888	4,674	2,214	3,970	2,918	1,946	4,942

Table C. 11 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, RLFS 2019

Place of Technical skills	Total	Sex		Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Total	1189564	641859	547704	375043	814521	436299	753265
Vocational School Course/IPRC	740127	404371	335756	266807	473319	242210	497916
Apprenticeship or on job Training	158008	118631	39378	46026	111982	56683	101325
Learned from a friend or Family	201892	96404	105488	43939	157953	89862	112030
NGO	74342	20099	54243	14552	59790	39988	34354
Community organization	14305	1702	12604	3313	10993	7318	6987
Other(specify)	890	653	236	406	484	236	653
Main trade and technical training sponsor							
Government	87044	52512	34532	30312	56732	30368	56676
Employer	4731	3095	1636	1945	2786	1051	3680
Self-financing/Parents	696309	370782	325527	241736	454573	227466	468843
Private institutions/agencies/persons	13524	8769	4756	5552	7973	3583	9942
Non-profit organization/charity	120265	45137	75127	38712	81553	44535	75730
International organization	13593	6184	7409	5725	7868	4271	9322
He/she didn't pay	254098	155380	98718	51062	203036	125026	129072
Other(specify)							
Thing happened after completion of the training							
Nothing	241948	106796	135152	79495	162453	92283	149665
Starting own business	171099	74219	96880	42921	128178	76529	94570
I was able to get a job	235522	178742	56780	99272	136250	68384	167138
My salary increased	319	319	0	93	226	0	319
I was promoted at work	1268	867	401	355	913	0	1268
My job skills have improved	14236	9157	5079	3741	10495	6868	7368
Got internship/traineeship with a company	5572	3056	2517	2508	3064	997	4575
Other (specify)	586	0	586	0	586	102	484

Table C. 12 Population 16 years old and over by labour force status, sex, age group, and urban/rural area, RLFS 2019

	Total	Labour force status				Labour force participation rate (%)	Employment-population ratio (%)	Unemployment rate (%)
		Labour force	Employed	Unemployed	Outside labour force			
Total Pop 16+ yrs a	7,231,536	3,862,799	3,273,921	588,878	3,368,737	53.4	45.3	15.2
16-24 yrs	2,208,458	924,093	734,155	189,938	1,284,365	41.8	33.2	20.6
25-34 yrs	1,780,144	1,262,063	1,056,939	205,124	518,082	70.9	59.4	16.3
35-54 yrs	2,108,090	1,341,343	1,177,591	163,752	766,747	63.6	55.9	12.2
55-64 yrs	623,050	258,086	232,022	26,064	364,964	41.4	37.2	10.1
65+ yrs	511,793	77,214	73,214	4,000	434,579	15.1	14.3	5.2
Male Pop. 16+ yrs	3,394,436	2,132,952	1,838,353	294,599	1,261,485	62.8	54.2	13.8
16-24 yrs	1,075,459	491,413	399,548	91,865	584,046	45.7	37.2	18.7
25-34 yrs	855,143	704,943	610,685	94,258	150,201	82.4	71.4	13.4
35-54 yrs	989,833	751,217	662,484	88,733	238,616	75.9	66.9	11.8
55-64 yrs	266,784	139,948	122,611	17,337	126,835	52.5	46.0	12.4
65+ yrs	207,217	45,432	43,026	2,406	161,786	21.9	20.8	5.3
Female Pop. 16+ yrs	3,837,100	1,729,847	1,435,568	294,279	2,107,253	45.1	37.4	17.0
16-24 yrs	1,132,999	432,681	334,608	98,073	700,319	38.2	29.5	22.7
25-34 yrs	925,001	557,120	446,254	110,866	367,881	60.2	48.2	19.9
35-54 yrs	1,118,257	590,126	515,107	75,019	528,131	52.8	46.1	12.7
55-64 yrs	356,267	118,138	109,411	8,727	238,129	33.2	30.7	7.4
65+ yrs	304,576	31,783	30,189	1,594	272,793	10.4	9.9	5.0
Urban Pop. 16+ yrs	1,479,242	990,547	839,040	151,507	488,694	67.0	56.7	15.3
16-24 yrs	491,168	234,305	191,257	43,048	256,863	47.7	38.9	18.4
25-34 yrs	453,107	366,946	303,400	63,546	86,161	81.0	67.0	17.3
35-54 yrs	402,454	329,705	291,876	37,829	72,749	81.9	72.5	11.5
55-64 yrs	80,456	47,674	41,841	5,833	32,782	59.3	52.0	12.2
65+ yrs	52,056	11,918	10,667	1,251	40,138	22.9	20.5	10.5
Rural Pop. 16+ yrs	5,752,294	2,872,252	2,434,881	437,371	2,880,043	49.9	42.3	15.2
16-24 yrs	1,717,290	689,789	542,899	146,890	1,027,502	40.2	31.6	21.3
25-34 yrs	1,327,037	895,117	753,539	141,578	431,920	67.5	56.8	15.8
35-54 yrs	1,705,637	1,011,638	885,715	125,923	693,998	59.3	51.9	12.4
55-64 yrs	542,594	210,412	190,181	20,231	332,182	38.8	35.1	9.6
65+ yrs	459,737	65,296	62,547	2,749	394,441	14.2	13.6	4.2

Table C. 13 Population 16 years old and over by labour force status, sex, educational attainment, and urban/rural area, RLFS 2019

	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	7,231,536	3,862,799	3,273,921	588,878	3,368,737	53.4	45.3	15.2
None	3,494,517	1,823,192	1,578,197	244,995	1,671,325	52.2	45.2	13.4
Primary	2,167,832	1,138,353	969,433	168,920	1,029,479	52.5	44.7	14.8
Lower secondary	611,268	229,735	189,144	40,591	381,533	37.6	30.9	17.7
Upper secondary	640,907	392,165	298,483	93,682	248,743	61.2	46.6	23.9
University	317,011	279,354	238,664	40,690	37,657	88.1	75.3	14.6

Table C. 14 Population 16 years old and over by labour force status, sex, marital status, and urban/rural area, RLFS 2019

	Total	Labour force status				Labour force participation rate	Employment-population ratio	Unemployment rate
		Labour force	Employed	Unemployed	Outside labour force			
Population 16+ yrs	7,231,536	3,862,799	3,273,921	588,878	3,368,737	53.4	45.3	15.2
Married	2,746,980	1,550,721	1,353,411	197,310	1,196,260	56.5	49.3	12.7
Living together	1,053,344	712,009	608,320	103,689	341,334	67.6	57.8	14.6
Divorced/separated	232,216	154,154	135,303	18,851	78,061	66.4	58.3	12.2
Single	2,681,644	1,289,272	1,035,037	254,235	1,392,372	48.1	38.6	19.7
Widow/widower	517,353	156,642	141,850	14,792	360,710	30.3	27.4	9.4

Table C. 15 Employed population by sex, age group, and urban/rural area, RLFS 2019

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Employed population 16+	3,273,921	1,838,353	1,435,568	839,040	2,434,881	1,248,454	2,025,467
16-19 yrs	267,838	142,715	125,122	55,859	211,979	84,489	183,348
20-24 yrs	466,317	256,832	209,485	135,398	330,919	141,541	324,776
25-29 yrs	519,845	293,067	226,777	160,535	359,310	158,946	360,898
30-34 yrs	537,094	317,617	219,477	142,865	394,229	195,322	341,772
35-39 yrs	454,179	260,641	193,539	114,763	339,417	196,086	258,094
40-44 yrs	315,814	182,363	133,451	87,092	228,722	133,928	181,886
45-49 yrs	248,198	129,734	118,463	58,865	189,332	112,956	135,242
50-54 yrs	159,400	89,746	69,654	31,156	128,245	74,578	84,822
55-59 yrs	141,242	72,305	68,938	25,726	115,517	69,025	72,217
60-64 yrs	90,779	50,306	40,473	16,115	74,664	45,581	45,198
65-69 yrs	44,437	25,967	18,471	7,830	36,608	21,274	23,163
70-74 yrs	18,413	11,547	6,865	1,871	16,541	9,095	9,317
75+	10,364	5,512	4,853	966	9,398	5,632	4,732

Table C. 16 Employed population by sex, occupation group, and urban/rural area, RLFS 2019

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Occupation group (ISCO High level)	3,273,921	1,838,353	1,435,568	839,040	2,434,881	1,248,454	2,025,467
Managers	45,211	32,273	12,937	35,163	10,048	3,593	41,617
Professionals	198,024	114,789	83,236	104,750	93,274	28,253	169,771
Technicians and associate professionals	50,189	33,119	17,069	34,322	15,867	3,430	46,758
Clerical support workers	33,821	13,842	19,979	24,872	8,949	967	32,853
Service and sales workers	648,741	326,436	322,306	246,136	402,605	219,745	428,997
Skilled agricultural, forestry and fishery	219,555	119,433	100,122	12,102	207,453	21,000	198,555
Craft and related trades workers	272,902	192,897	80,005	80,996	191,905	88,304	184,598
Plant and machine operators and assemble	98,018	95,623	2,395	47,483	50,535	8,346	89,672
Elementary occupations	1,707,459	909,940	797,519	253,215	1,454,244	874,815	832,644

Table C. 17 Employed population by sex, current education attendance, and urban/rural area, RLFS 2019

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Employed population	3,273,921	1,838,353	1,435,568	839,040	2,434,881	1,248,454	2,025,467
Currently studying	63,458	41,108	22,350	33,314	30,144	8,762	54,695
Not currently studying	3,210,463	1,797,244	1,413,219	805,726	2,404,737	1,239,691	1,970,771

Table C. 18 Employed population by sex, educational attainment, and urban/rural area, RLFS 2019

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Employed population	3,273,921	1,838,353	1,435,568	839,040	2,434,881	1,248,454	2,025,467
None	1,578,197	854,080	724,116	192,862	1,385,334	775,070	803,127
Primary	969,433	565,259	404,174	227,165	742,268	379,637	589,796
Lower secondary	189,144	111,585	77,560	86,209	102,936	34,125	155,019
Upper secondary	298,483	161,820	136,663	151,255	147,227	42,128	256,354
University	238,664	145,609	93,055	181,549	57,116	17,494	221,171

Table C. 19 Employed population by sex, occupation group and level of educational attainment, RLFS 2019

Occupation group	Total	Educational attainment				
		None	Primary	Lower secondary	Upper secondary	University
Employed population	3,273,921	1,578,197	969,433	189,144	298,483	238,664
Managers	45,211	225	1,051	943	4,097	38,895
Professionals	198,024	3,640	10,097	8,561	67,746	107,981
Technicians and Associate Professionals	50,189	1,302	4,624	2,511	13,507	28,244
Clerical Support Workers	33,821	608	1,203	1,215	12,491	18,305
Service and Sales Workers	648,741	240,976	210,780	59,537	107,441	30,007
Skilled Agricultural, Forestry and Fishery Workers	219,555	112,398	82,422	10,855	11,019	2,860
Craft and Related Trades Workers	272,902	91,313	116,444	30,696	27,130	7,319
Plant and Machine Operators and Assemblers	98,018	23,510	36,465	17,690	17,411	2,942
Elementary Occupations	1,707,459	1,104,224	506,348	57,135	37,641	2,111
Employed population (Male)	1,838,353	854,080	565,259	111,585	161,820	145,609
Managers	32,273	225	844	747	2,558	27,899
Professionals	114,789	3,533	9,413	6,322	30,724	64,796
Technicians and Associate Professionals	33,119	1,195	3,750	2,009	7,920	18,245
Clerical Support Workers	13,842	395	903	924	4,180	7,439
Service and Sales Workers	326,436	119,843	115,759	28,266	48,537	14,030

Occupation group	Total	Educational attainment				
		None	Primary	Lower secondary	Upper secondary	University
Skilled Agricultural, Forestry and Fishery Workers	119,433	57,977	47,308	5,372	6,193	2,583
Craft and Related Trades Workers	192,897	69,967	74,874	19,127	22,811	6,118
Plant and Machine Operators and Assemblers	95,623	23,083	35,370	17,590	16,775	2,806
Elementary Occupations	909,940	577,861	277,038	31,227	22,122	1,693
Employed population (Female)	1,435,568	724,116	404,174	77,560	136,663	93,055
Managers	12,937	0	207	196	1,538	10,996
Professionals	83,236	106	684	2,239	37,022	43,185
Technicians and Associate Professionals	17,069	107	874	502	5,588	9,999
Clerical Support Workers	19,979	212	299	291	8,311	10,866
Service and Sales Workers	322,306	121,133	95,021	31,271	58,904	15,977
Skilled Agricultural, Forestry and Fishery Workers	100,122	54,421	35,115	5,484	4,826	277
Craft and Related Trades Workers	80,005	21,346	41,570	11,569	4,319	1,202
Plant and Machine Operators and Assemblers	2,395	427	1,095	100	637	136
Elementary Occupations	797,519	526,364	229,310	25,908	15,519	418

Table C. 20 Employed population by sex, branch of economic activity, and urban/rural area, RLFS 2019

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Employed population	3,273,921	1,838,353	1,435,568	839,040	2,434,881	1,248,454	2,025,467
Agriculture, forestry and fishing	1,225,151	563,414	661,737	47,443	1,177,708	691,581	533,570
Mining and quarrying	71,205	64,553	6,652	2,158	69,047	24,338	46,867
Manufacturing	208,956	109,653	99,304	56,732	152,224	79,247	129,710
Electricity, gas, steam and air conditioning supply	9,237	8,582	655	4,568	4,669	1,438	7,799
Water supply, sewerage and waste management	7,550	5,111	2,440	3,038	4,512	2,083	5,467
Construction	315,022	261,402	53,619	62,611	252,410	128,392	186,629
Wholesale, retail trade, repair of motor vehicles, motorcycles	485,871	230,492	255,379	181,658	304,213	166,519	319,352
Transportation and storage	170,913	165,498	5,416	59,648	111,265	33,275	137,638
Accommodation and food service activities	96,982	49,085	47,896	36,635	60,347	29,828	67,154
Information and communication	11,515	7,923	3,592	9,635	1,880	557	10,957
Financial and insurance activities	35,051	18,869	16,182	24,575	10,476	1,598	33,452
Real estate activities	4,260	3,641	619	2,569	1,690	541	3,718
Professional, scientific and technical activities	27,111	18,324	8,787	19,388	7,723	1,036	26,075
Administrative and support service activities	60,099	41,669	18,430	29,287	30,812	13,919	46,180
Public administration and defense	68,189	49,557	18,632	39,302	28,888	5,890	62,299
Education	118,626	60,497	58,129	40,646	77,981	27,837	90,790
Human health and social work activities	46,020	22,426	23,594	30,149	15,871	4,074	41,946
Arts, entertainment and recreation	11,371	7,273	4,099	8,078	3,294	1,737	9,635
Other service activities	72,319	45,269	27,051	29,129	43,190	20,857	51,463
Activities of households as employers	207,927	93,622	114,305	137,048	70,879	11,969	195,957
Activities of extraterritorial organizations and bodies	20,546	11,494	9,052	14,745	5,801	1,739	18,808

Table C. 21 Employed population by sex, branch of economic activity and level of educational attainment, RLFS 2019

	Total	None	Primary	Lower secondary	Upper secondary	University
Employed population	3,273,921	1,578,197	969,433	189,144	298,483	238,664
Agriculture, forestry and fishing	1,225,151	838,943	331,193	30,836	19,909	4,270
Mining and quarrying	71,205	43,161	21,312	1,617	3,724	1,391
Manufacturing	208,956	79,849	87,974	20,972	14,477	5,684
Electricity, gas, steam and air conditioning supply	9,237	300	1,886	739	2,921	3,391
Water supply, sewerage and waste management	7,550	1,618	1,682	1,211	1,952	1,086
Construction	315,022	154,966	105,700	17,872	26,141	10,342
Wholesale, retail trade, repair of motor vehicles, motorcycles	485,871	197,424	154,595	41,287	67,652	24,914
Transportation and storage	170,913	77,744	58,050	17,522	11,991	5,606
Accommodation and food service activities	96,982	31,802	34,251	9,742	15,823	5,363
Information and communication	11,515	321	944	128	3,256	6,866
Financial and insurance activities	35,051	1,267	3,825	1,442	11,600	16,917
Real estate activities	4,260	1,383	826	1,274	562	214
Professional, scientific and technical activities	27,111	583	3,047	1,078	7,064	15,339
Administrative and support service activities	60,099	20,422	15,355	7,050	13,383	3,889
Public administration and defense	68,189	4,334	10,929	6,618	15,424	30,885
Education	118,626	5,101	6,805	3,036	52,318	51,367
Human health and social work activities	46,020	2,124	3,351	1,101	10,740	28,704
Arts, entertainment and recreation	11,371	1,875	1,152	1,251	3,958	3,136
Other service activities	72,319	27,682	26,720	7,053	5,448	5,416
Activities of households as employers	207,927	86,211	97,518	16,960	7,054	184
Activities of extraterritorial organizations and bodies	20,546	1,086	2,318	354	3,087	13,701
Employed population (Male)	1,838,353	854,080	565,259	111,585	161,820	145,609
Agriculture forestry and fishing	563,414	374,419	158,666	16,253	10,530	3,545
Mining and quarrying	64,553	39,741	19,139	1,312	3,271	1,090
Manufacturing	109,653	47,015	41,224	8,831	8,336	4,248
Electricity gas stream and air conditioning supply	8,582	300	1,724	739	2,879	2,941
Water supply, gas and remediation services	5,111	786	1,482	920	1,540	382
Construction	261,402	122,279	90,794	15,621	23,376	9,332
Whole sale and retail trade; repair of motor vehicles and motorcycles	230,492	90,098	80,352	18,966	29,540	11,537
Transportation and storage	165,498	75,843	57,016	17,247	11,340	4,051
Accommodation and food services activities	49,085	16,540	18,959	4,136	6,746	2,705
Information and communication	7,923	260	562	128	2,007	4,966

	Total	None	Primary	Lower secondary	Upper secondary	University
Financial and insurance activities	18,869	789	2,882	702	5,255	9,241
Real estate activities	3,641	1,383	494	1,028	521	214
Professional, scientific and technical activities	18,324	475	1,992	823	4,412	10,623
Administrative and support activities	41,669	14,108	12,258	4,884	7,894	2,525
Public administration and defense; compulsory social security	49,557	3,879	10,301	6,355	9,900	19,123
Education	60,497	2,027	5,229	1,381	19,100	32,760
Human health and social work activities	22,426	1,504	1,735	643	4,541	14,003
Arts, entertainment and recreation	7,273	782	482	1,075	2,750	2,184
Other services	45,269	18,391	16,536	3,967	3,350	3,024
Activities of households as employers	93,622	42,663	41,799	6,311	2,665	184
Activities of extraterritorial organizations and bodies	11,494	799	1,634	262	1,866	6,932
Employed population (Female)	1,435,568	724,116	404,174	77,560	136,663	93,055
Agriculture, forestry and fishing	661,737	464,524	172,527	14,583	9,378	725
Mining and quarrying	6,652	3,420	2,173	305	453	301
Manufacturing	99,304	32,834	46,751	12,142	6,141	1,435
Electricity, gas, steam and air conditioning supply	655	0	163	0	42	450
Water supply, sewerage and waste management	2,440	832	201	291	412	704
Construction	53,619	32,687	14,906	2,252	2,765	1,010
Wholesale, retail trade, repair of motor vehicles, motorcycles	255,379	107,326	74,243	22,321	38,112	13,377
Transportation and storage	5,416	1,902	1,034	274	651	1,555
Accommodation and food service activities	47,896	15,263	15,292	5,606	9,077	2,658
Information and communication	3,592	61	382	0	1,249	1,900
Financial and insurance activities	16,182	477	943	740	6,345	7,676
Real estate activities	619	0	331	247	41	0
Professional, scientific and technical activities	8,787	109	1,055	255	2,652	4,716
Administrative and support service activities	18,430	6,314	3,097	2,166	5,489	1,364
Public administration and defense	18,632	455	628	263	5,524	11,762
Education	58,129	3,074	1,576	1,655	33,217	18,607
Human health and social work activities	23,594	620	1,617	458	6,199	14,701
Arts, entertainment and recreation	4,099	1,092	670	176	1,207	952
Other service activities	27,051	9,291	10,183	3,086	2,098	2,393
Activities of households as employers	114,305	43,548	55,719	10,649	4,390	0
Activities of extraterritorial organizations and bodies	9,052	287	683	92	1,221	6,769

Table C. 22 Employed population by sex, status in employment, and urban/rural area, RLFS 2019

	Total	Sex		Area of Residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Employed population	3,273,921	1,838,353	1,435,568	839,040	2,434,881	1,248,454	2,025,467
Employee, Paid apprentice/intern	2,199,443	1,249,288	950,154	555,366	1,644,076	923,877	1,275,565
Employer	41,057	31,793	9,264	19,869	21,188	6,827	34,230
Own-account worker	905,679	527,584	378,095	239,173	666,506	285,551	620,128
Member of cooperative	11,263	7,945	3,318	2,388	8,875	2,843	8,420
Contributing family worker	116,480	21,742	94,738	22,244	94,236	29,356	87,123

Table C. 23 Employed population by sex, hours usually worked per week at all jobs, and urban/rural area, RLFS 2019

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Employed population	3,273,921	1,838,353	1,435,568	839,040	464,294	374,746	2,434,881	1,374,059	1,060,822
less than 24 hours	755,087	337,122	417,965	76,244	35,282	40,963	678,843	301,840	377,003
25-34 hours	430,869	214,098	216,771	49,682	27,608	22,074	381,187	186,490	194,697
35-40 hours	684,031	365,538	318,492	110,770	59,681	51,089	573,261	305,858	267,403
41-48 hours	583,679	362,465	221,214	224,349	124,692	99,658	359,330	237,773	121,557
49-61 hours	445,414	292,844	152,570	198,358	109,816	88,542	247,056	183,027	64,029
62-79 hours	291,038	202,182	88,856	142,221	82,046	60,175	148,817	120,136	28,681
80 hours+	83,802	64,103	19,699	37,415	25,169	12,247	46,386	38,934	7,452

Table C. 24 Employees by sex, duration of employment contract at main job and urban/rural area, RLFS 2019

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Total employees/paid apprentices 16 +	2,199,324	1,249,170	950,154	555,248	1,644,076	923,877	1,275,447
Permanent (without a known limited duration)	667,233	406,423	260,809	350,367	316,866	103,153	564,079
Temporary contract	1,532,091	842,746	689,345	204,881	1,327,211	820,724	711,367
- Day	1,234,938	656,378	578,559	90,506	1,144,432	756,397	478,541
- Week	34,257	24,052	10,205	4,988	29,269	14,592	19,666
- Month	146,962	92,283	54,680	55,401	91,561	30,298	116,665
- Less than one year	51,598	28,778	22,820	18,779	32,819	11,304	40,294
- One year or more	64,336	41,255	23,081	35,207	29,129	8,134	56,202

Table C. 25 Employed population by sex, formal/informal sector employment, status in employment at main job and urban/rural area, RLFS 2019

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Employed population 16+ in formal and informal sector	3059223	1739892	1319331	700716	2358506	1234348	1824875
Formal sector	578,860	362,132	216,728	297,573	281,287	100,234	478,626
Employee	532,123	330,083	202,039	264,416	267,706	94,684	437,438
Employer (with regular employees)	10,940	8,799	2,142	9,278	1,662	1,313	9,627
Own-account worker(without regular employees)	24,944	18,508	6,435	17,861	7,082	2,349	22,595
Member of cooperative	4,993	4,169	824	1,357	3,635	1,036	3,956
Contributing family worker	5,861	573	5,287	4,660	1,200	851	5,009
Informal sector	2,480,363	1,377,760	1,102,603	403,143	2,077,219	1,134,114	1,346,249
- Employee	1,455,132	822,208	632,923	153,530	1,301,602	815,671	639,460
- Employer	30,117	22,995	7,122	10,591	19,526	5,513	24,603
- Own-account worker	878,746	507,728	371,018	220,586	658,159	282,617	596,128
- Member of cooperative	6,154	3,661	2,494	1,031	5,124	1,806	4,348
- Contributing family worker	110,214	21,168	89,046	17,406	92,809	28,505	81,709
Formal sector out of agriculture	547,153	346,958	200,195	293,236	253,917	85,630	461,523
Employee	505,408	319,041	186,367	260,528	244,880	80,573	424,835
Employer (with regular employees)	10,627	8,546	2,080	9,278	1,348	1,313	9,313
account worker(without regular employment)	23,878	17,443	6,435	17,802	6,076	2,349	21,530
Member of cooperative	1,747	1,395	352	1,049	698	544	1,203
Contributing family worker	5,493	533	4,960	4,578	915	851	4,642
Informal sector out of agriculture	1,292,676	833,477	459,198	360,769	931,907	458,947	833,729
- Employee	502,446	403,789	98,657	122,648	379,798	171,238	331,208
- Employer	19,032	13,494	5,538	9,357	9,675	4,609	14,423
- Own-account worker	714,763	401,500	313,263	212,247	502,516	258,674	456,089
- Member of cooperative	3,251	1,800	1,451	978	2,272	647	2,604
- Contributing family worker	53,185	12,895	40,290	15,540	37,645	23,778	29,406

Table C. 26 Formal and informal employment by sex, branch of economic activity, RLFS 2019

Economic activity	Total			Male		Female	
	Total	Formal employment	Informal employment	Formal employment	Informal employment	Formal employment	Informal employment
Total	3,273,921	342,426	3,273,921	215,802	1,838,353	126,624	1,435,568
Agriculture, forestry and fishing	1,225,151	4,252	1,225,151	2,907	563,414	1,344	661,737
Mining and quarrying	71,205	3,740	71,205	2,826	64,553	914	6,652
Manufacturing	208,956	13,474	208,956	11,279	109,653	2,195	99,304
Electricity, gas, steam and air conditioning supply	9,237	5,005	9,237	4,580	8,582	425	655
Water supply, sewerage and waste management	7,550	2,277	7,550	1,314	5,111	964	2,440
Construction	315,022	7,990	315,022	7,055	261,402	935	53,619
Wholesale, retail trade, repair of motor vehicles, motorcycles	485,871	21,010	485,871	13,221	230,492	7,789	255,379
Transportation and storage	170,913	9,998	170,913	8,340	165,498	1,659	5,416
Accommodation and food service activities	96,982	7,077	96,982	4,554	49,085	2,524	47,896
Information and communication	11,515	5,928	11,515	3,808	7,923	2,120	3,592
Financial and insurance activities	35,051	21,812	35,051	12,937	18,869	8,875	16,182
Real estate activities	4,260	350	4,260	350	3,641	0	619
Professional, scientific and technical activities	27,111	9,489	27,111	7,167	18,324	2,322	8,787
Administrative and support service activities	60,099	16,653	60,099	12,693	41,669	3,960	18,430
Public administration and defense	68,189	60,926	68,189	44,990	49,557	15,935	18,632
Education	118,626	91,979	118,626	46,542	60,497	45,437	58,129
Human health and social work activities	46,020	37,684	46,020	17,229	22,426	20,455	23,594
Arts, entertainment and recreation	11,371	2,405	11,371	1,640	7,273	765	4,099
Other service activities	72,319	5,886	72,319	4,292	45,269	1,594	27,051
Activities of households as employers	207,927	500	207,927	430	93,622	70	114,305
Activities of extraterritorial organizations and bodies	20,546	13,993	20,546	7,650	11,494	6,343	9,052

Table C. 27 Formal and informal Sector by sex, branch of economic activity, RLFS 2019

	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	3,059,222	2,480,363	578,860	1,377,760	362,132	1,102,603	216,728
Agriculture, forestry and fishing	1,219,393	1,187,687	31,706	544,283	15,174	643,404	16,533
Mining and quarrying	71,205	41,614	29,591	37,640	26,913	3,974	2,678
Manufacturing	208,828	164,912	43,916	79,838	29,815	85,074	14,101
Electricity, gas, steam and air conditioning supply	9,237	2,236	7,001	2,236	6,346	0	655
Water supply, sewerage and waste management	7,550	3,144	4,407	2,120	2,991	1,024	1,416
Construction	314,968	272,007	42,961	232,563	28,785	39,444	14,176
Wholesale, retail trade, repair of motor vehicles, motorcycles	485,377	443,936	41,440	205,554	24,607	238,382	16,833
Transportation and storage	170,553	153,646	16,906	150,462	14,675	3,184	2,231
Accommodation and food service activities	96,982	77,838	19,144	38,022	11,063	39,815	8,081
Information and communication	11,515	3,233	8,281	2,383	5,540	850	2,742
Financial and insurance activities	34,999	8,001	26,999	5,022	13,796	2,979	13,203
Real estate activities	4,260	3,508	752	3,045	596	463	156
Professional, scientific and technical activities	26,932	13,972	12,961	9,235	9,089	4,737	3,872
Administrative and support service activities	59,853	27,732	32,121	19,082	22,341	8,650	9,780
Public administration and defense	68,189	199	67,990	0	49,557	199	18,433
Education	118,626	8,116	110,510	3,859	56,638	4,258	53,871
Human health and social work activities	46,020	2,637	43,383	1,511	20,915	1,126	22,468
Arts, entertainment and recreation	11,371	5,633	5,738	3,553	3,719	2,080	2,019
Other service activities	72,226	59,902	12,323	37,146	8,077	22,756	4,247
Activities_of_households_as_employers	592	409	183	206	0	202	183
Activities of extraterritorial organizations and bodies	20,546	0	20,546	0	11,494	0	9,052

Table C. 28 Average number of hours usually worked per week at main job by sex, branch of economic activity, urban/rural area, RLFS 2019

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Employed population	38.7	41.6	35.0	48.6	49.8	47.1	35.3	38.8	30.7
Agriculture, forestry and fishing	29.8	32.2	27.7	32.9	37.3	28.8	29.7	32.0	27.7
Mining and quarrying	43.5	43.9	39.0	42.8	41.4	45.8	43.5	44.0	38.2
Manufacturing	38.4	42.2	34.3	47.5	49.4	45.2	35.1	39.4	30.5
Electricity, gas, steam and air conditioning supply	49.8	50.6	38.8	46.2	46.8	41.7	53.3	54.1	30.0
Water supply, sewerage and waste management	45.5	46.7	42.9	50.6	52.1	47.7	42.0	43.2	39.4
Construction	38.7	40.1	32.3	42.8	43.7	35.9	37.7	39.1	31.8
Wholesale, retail trade, repair of motor vehicles, motorcycles	40.8	44.0	37.8	48.2	51.2	45.8	36.3	40.2	32.5
Transportation and storage	47.1	47.6	33.9	52.5	52.9	43.3	44.2	44.7	26.9
Accommodation and food service activities	47.1	50.4	43.8	54.1	55.1	53.2	42.9	48.0	37.0
Information and communication	45.0	45.2	44.3	44.9	44.9	45.0	45.2	47.6	41.9
Financial and insurance activities	50.1	52.4	47.5	52.0	52.9	50.9	45.7	50.9	41.3
Real estate activities	44.9	45.4	42.1	46.6	48.1	42.1	42.3	42.3	0.0
Professional, scientific and technical activities	44.5	45.6	42.2	44.5	44.7	44.1	44.4	47.4	35.5
Administrative and support service activities	56.4	62.2	43.1	58.2	62.5	50.6	54.6	62.0	32.9
Public administration and defense	52.0	54.3	46.0	49.8	51.8	46.0	55.0	57.1	45.9
Education	42.9	43.7	42.0	42.8	42.8	42.7	42.9	44.2	41.5
Human health and social work activities	48.6	50.2	47.1	47.0	47.1	46.9	51.6	54.8	47.5
Arts, entertainment and recreation	39.7	39.6	39.7	42.6	39.9	48.9	32.4	38.5	26.4
Other service activities	39.5	42.7	34.2	45.1	51.6	39.2	35.7	38.7	27.7
Activities of households as employers	55.0	53.7	56.1	56.2	55.6	56.5	52.9	51.5	55.1
Activities of extraterritorial organizations and bodies	42.7	41.8	43.9	42.8	42.9	42.7	42.3	38.6	46.4

Table C. 29 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, RLFS 2019

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total (16+ yrs)	57,878	67,942	44,741	132,836	157,422	101,247	32,863	38,354	25,658
age group									
16-24 yrs	27,288	30,985	23,000	35,489	45,716	28,018	24,113	26,845	20,319
25-34 yrs	63,983	72,649	51,811	134,837	147,098	116,304	36,272	42,291	28,054
35-54 yrs	76,797	90,196	58,465	213,697	231,737	182,388	37,039	43,730	28,479
55-64 yrs	51,419	64,518	37,262	164,439	191,692	129,799	30,291	38,524	21,657
65+yrs	37,465	48,665	20,167	154,332	160,835	89,476	21,931	24,760	18,228
Education level									
None	24,758	29,469	19,239	30,905	40,192	21,211	24,020	28,259	18,986
Primary	33,223	40,586	22,473	45,256	59,479	28,204	29,478	35,318	20,402
Lower secondary	58,385	69,223	38,071	72,256	90,388	39,947	45,311	49,950	36,185
Upper secondary	89,832	102,001	74,607	110,624	127,351	88,359	69,775	76,194	62,207
University	287,689	311,891	250,874	336,379	372,604	284,503	149,575	154,576	140,506
Occupation group									
Managers	429,191	450,533	378,486	509,205	545,898	431,218	180,644	191,425	142,978
Professionals	180,340	203,577	150,669	265,350	314,058	205,736	88,349	88,576	88,046
Technicians and associate professions	255,017	239,646	283,459	302,756	271,226	366,395	140,598	155,622	117,838
Clerical support workers	170,148	171,758	169,112	195,063	195,800	194,524	103,592	83,866	112,401
Service and sales workers	61,328	55,001	76,068	80,998	80,620	81,566	40,873	35,114	64,425
Skilled agricultural, forestry and fishery workers	36,039	27,081	48,726	57,356	32,500	66,345	32,072	26,666	41,928
Craft and related trades workers	87,304	89,179	60,834	114,645	117,546	85,841	75,093	77,002	42,210
Plant and machine operators, and assemblers	129,688	132,640	42,949	142,139	145,020	54,348	110,302	113,305	26,687
Elementary occupations	23,461	27,290	19,467	27,135	34,323	21,611	22,850	26,318	19,044

Table C. 30 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, RLFS 2019

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total (16+ yrs)	21,667	26,000	18,200	52,000	66,667	30,000	20,800	26,000	18,200
Age group									
16-24 yrs	18,200	20,000	18,000	20,000	21,667	15,000	18,200	20,000	18,200
25-34 yrs	26,000	31,200	20,000	65,000	70,000	45,000	20,800	26,000	18,200
35-54 yrs	26,000	31,200	20,000	130,000	150,000	100,000	20,800	26,000	18,200
55-64 yrs	20,800	26,000	18,200	106,000	180,000	70,000	18,200	22,967	18,200
65+ yrs	18,200	20,800	18,200	35,000	35,000	18,200	18,200	20,000	18,200
Education level									
None	18,200	20,800	18,200	20,800	26,000	20,000	18,200	20,800	18,200
Primary	20,800	26,000	18,200	26,000	40,000	20,000	20,800	26,000	18,200
Lower secondary	32,500	50,000	22,000	50,000	66,667	25,000	26,000	37,500	20,800
Upper secondary	56,000	66,667	48,000	66,667	86,667	50,000	50,000	52,000	44,000
University	200,000	200,000	200,000	200,000	200,000	200,000	137,000	137,000	130,000
Occupation group									
Managers	200,000	200,000	200,000	200,000	200,000	200,000	200000	200000	105000
Professionals	113,000	134,000	85,000	200,000	200,000	190,000	60000	66667	51000
Technicians and associate professions	200,000	200,000	200,000	200,000	200,000	200,000	108000	120000	100000
Clerical support workers	165,000	180,000	130,000	200,000	200,000	200,000	75000	70000	80000
Service and sales workers	37,500	35,000	50,000	52,000	54,000	51,000	26000	26000	31700
Skilled agricultural, forestry and fishery workers	26,000	26,000	26,000	32,500	32,500	26,000	26000	21667	40000
Craft and related trades workers	70,000	78,000	39,000	104,000	104,000	50,000	65000	65000	26000
Plant and machine operators, and assemblers	120,000	130,000	30,000	140,000	150,000	37,500	100000	100000	20800
Elementary occupations	18,200	20,800	18,200	20,000	25,000	18,200	18200	20800	18200

Table C. 31 Size distribution of monthly cash income from employment of employees at main job by sex and urban/rural area, RLFS 2019

	Total	Rwanda			Urban			Rural		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	2,199,443	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 20,000 RWF	892,977	40.6	31.2	52.9	18.6	11.6	27.7	48.0	37.8	61.5
20,000 – 29,999 RWF	477,869	21.7	21.4	22.2	13.9	10.6	18.2	24.4	25.0	23.6
30,000 – 49,999 RWF	275,791	12.5	15.0	9.3	13.0	13.1	12.9	12.4	15.7	8.0
50,000 – 99,999 RWF	252,419	11.5	15.4	6.3	16.4	19.1	12.8	9.8	14.2	4.0
100,000 RWF and above	281,299	12.8	15.8	8.9	36.4	43.5	27.2	4.8	6.5	2.6
Not stated	19,087	0.9	1.2	0.5	1.8	2.2	1.2	0.6	0.8	0.2

Table C. 32 Median/Mean cash income from employment of employees at main job by Quintiles, sex and urban/rural area, RLFS 2019

Median	Total	Rwanda			Urban			Rural		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	2,180,355	21,667	26,000	18,200	52,000	66,667	30,000	20,800	26,000	18,200
Quintile1	614,756	13,000	13,000	13,000	13,333	13,333	12,000	13,000	13,000	13,000
Quintile2	473,534	18,200	18,200	18,200	20,000	20,000	20,000	18,200	18,200	18,200
Quintile3	394,626	26,000	26,000	26,000	28,500	28,500	26,000	26,000	26,000	26,000
Quintile4	393,203	52,000	52,000	50,000	53,700	53,700	50,000	51,000	52,000	46,500
Quintile5	304,236	200,000	200,000	200,000	200,000	200,000	200,000	130,000	130,000	162,274
Mean	Total	Rwanda			Urban			Rural		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	2,180,355	57,878	67,942	44,741	132,836	157,422	101,247	32,863	38,354	25,658
Quintile1	614,756	12,747	12,245	13,149	12,156	12,328	12,061	12,853	12,234	13,382
Quintile2	473,534	19,162	19,184	19,146	19,750	19,780	19,733	19,092	19,125	19,066
Quintile3	394,626	27,105	27,093	27,124	27,849	28,072	27,604	26,950	26,929	26,988
Quintile4	393,203	52,619	53,103	51,228	54,799	55,923	52,855	51,615	52,063	49,906
Quintile5	304,236	256,044	253,689	261,645	294,378	299,003	284,869	171,401	166,601	187,742

Table C. 33 Youth and Young Population by sex, and residential area, RLFS 2019

	Age Group	Sex			Area of residence		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Total	Male	Female	Urban	Rural		
Youth Population 16-30yrs		3,297,203	1,579,617	1,717,586	791,461	2,505,742	1,076,591	2,220,612
Employed	16-24 yrs	734,155	399,548	334,608	191,257	542,899	226,030	508,125
	16-30 yrs	1,360,376	750,453	609,923	381,456	978,920	418,173	942,203
Unemployed	16-24 yrs	189,938	91,865	98,073	43,048	146,890	88,905	101,033
	16-30 yrs	328,411	152,735	175,676	90,245	238,166	147,596	180,815
Outside Labour Force	16-24 yrs	1,284,365	584,046	700,319	256,863	1,027,502	339,811	944,554
	16-30 yrs	1,608,416	676,429	931,987	319,759	1,288,656	510,822	1,097,594

Table C. 34 Young population 16–30 years old by sex, level of educational attainment, Labour force status and urban/rural area, RLFS 2019

	Total	Labour force status				Labour force participation rate	Employment-to population ratio	Unemployment rate
		Labour force	Employed	Unemployed	Outside Labour force			
Young pop. 16-30 yrs	3297203	1688787	1360376	328411	1608416	51.2	41.3	19.4
None	1149177	678918	569102	109816	470259	59.1	49.5	16.2
Primary	1097448	536033	445307	90726	561416	48.8	40.6	16.9
Lower secondary	490156	143269	113631	29638	346887	29.2	23.2	20.7
Upper secondary	460121	250470	175326	75144	209651	54.4	38.1	30.0
University	100300	80097	57010	23087	20202	79.9	56.8	28.8
Young population 16-30 yrs (Male)	1579617	903188	750453	152735	676429	57.2	47.5	16.9
None	587263	381573	328391	53182	205690	65.0	55.9	13.9
Primary	502803	281200	242800	38400	221603	55.9	48.3	13.7
Lower secondary	221867	73258	59934	13324	148609	33.0	27.0	18.2
Upper secondary	215462	125244	88497	36747	90218	58.1	41.1	29.3
University	52223	41914	30832	11082	10309	80.3	59.0	26.4
Young population 16-30 yrs (Female)	1717586	785599	609923	175676	931987	45.7	35.5	22.4
None	561914	297345	240711	56634	264569	52.9	42.8	19.0
Primary	594646	254833	202507	52326	339813	42.9	34.1	20.5

	Total	Labour force status				Labour force participation rate	Employment-to population ratio	Unemployment rate
		Labour force	Employed	Unemployed	Outside Labour force			
Lower secondary	268290	70011	53697	16314	198279	26.1	20.0	23.3
Upper secondary	244660	125226	86829	38397	119433	51.2	35.5	30.7
University	48077	38183	26178	12005	9893	79.4	54.5	31.4
Young population 16-30 yrs (Urban)	791461	471701	381456	90245	319759	59.6	48.2	19.1
None	135086	99348	88278	11070	35738	73.5	65.3	11.1
Primary	209162	133152	118306	14846	76009	63.7	56.6	11.1
Lower secondary	149706	55787	44198	11589	93919	37.3	29.5	20.8
Upper secondary	222969	121024	85669	35355	101945	54.3	38.4	29.2
University	74538	62391	45006	17385	12148	83.7	60.4	27.9
Young population 16-30 yrs (Rural)	2505742	1217086	978920	238166	1288656	48.6	39.1	19.6
None	1014091	579571	480825	98746	434521	57.2	47.4	17.0
Primary	888287	402880	327000	75880	485407	45.4	36.8	18.8
Lower secondary	340450	87482	69433	18049	252969	25.7	20.4	20.6
Upper secondary	237152	129446	89658	39788	107706	54.6	37.8	30.7
University	25761	17707	12004	5703	8054	68.7	46.6	32.2

Table C. 35 Youth Unemployed by sex, duration of seeking employment, and urban/rural area, RLFS 2019

	Rwanda			Urban		Rural	
	Total	Male	Female	Male	Female	Male	Female
Youth Unemployed (16-24 yrs) who searched for job	174,171	85,115	89,056	19,884	19,770	65,231	69,286
0 - less than 3 months	78,800	39,791	39,008	7,166	5,987	32,625	33,022
3 - less than 6 months	42,684	21,631	21,053	3,934	4,327	17,696	16,726
6 - less than 12 months	19,895	10,396	9,499	2,566	2,875	7,830	6,625
1 - less than 2 years	19,078	7,679	11,399	3,497	4,033	4,182	7,366
2 years or more	13,714	5,618	8,096	2,721	2,549	2,898	5,548

Table C. 36 Young Unemployed by sex, duration of seeking employment, and urban/rural area, RLFS 2019

	Rwanda			Urban		Rural	
	Total	Male	Female	Male	Female	Male	Female
Young Unemployed (16-30 yrs)	305,203	143,243	161,960	39,556	46,057	103,687	115,903
0 – less than 3 months	130,931	63,181	67,751	13,538	12,297	49,643	55,454
3 – less than 6 months	72,166	36,604	35,562	7,962	10,478	28,642	25,084
6 – less than 12 months	34,178	15,784	18,394	4,790	5,886	10,994	12,508
1 – less than 2 years	37,590	15,631	21,960	7,266	8,892	8,365	13,067
2 years or more	30,338	12,044	18,294	6,000	8,504	6,043	9,791

Table C. 37 Youth not in employment and not currently in education or training by sex, age group, and urban/rural area, RLFS 2019

	Rwanda			Urban		Rural	
	Total	Male	Female	Male	Female	Male	Female
Young not in employment nor in education (16-30 yrs)	1,129,832	418,149	711,683	61,698	125,856	356,451	585,827
16-19 yrs	326,453	142,302	184,151	14,415	21,177	127,887	162,974
20-24 yrs	391,861	147,541	244,320	24,363	46,013	123,178	198,308
25-30 yrs	411,519	128,306	283,212	22,920	58,667	105,387	224,546
None	467,032	190,361	276,671	11,312	22,419	179,049	254,252
Primary	383,358	126,838	256,521	11,945	34,950	114,893	221,571
Lower secondary	89,546	25,964	63,582	6,389	14,789	19,575	48,793
Upper secondary	156,267	60,640	95,627	23,214	39,259	37,426	56,367
University	33,629	14,346	19,282	8,838	14,439	5,508	4,844

Table C. 38 Unemployed population by sex, broad age group and urban/rural area, RLFS 2019

	Total	Sex		Residence area		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Unemployed population 16+	588,878	294,599	294,279	151,507	437,371	309,207	279,671
16-24 yrs	189,938	91,865	98,073	43,048	146,890	88,905	101,033
25-34 yrs	205,124	94,258	110,866	63,546	141,578	95,392	109,732
35-54 yrs	163,752	88,733	75,019	37,829	125,923	103,340	60,412
55-64 yrs	26,064	17,337	8,727	5,833	20,231	18,587	7,477
65+ yrs	4,000	2,406	1,594	1,251	2,749	2,982	1,018

Table C. 39 Unemployed population by sex, level of educational, and urban/rural area, RLFS 2019

	Total	sex		Residence area		Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		
Unemployed population 16+	588,878	294,599	294,279	151,507	437,371	309,207	279,671
None	244,995	121,204	123,791	24,787	220,209	162,779	82,216
Primary	168,920	86,833	82,087	31,378	137,543	104,146	64,775
Lower secondary	40,591	18,895	21,696	17,842	22,748	13,362	27,229
Upper secondary	93,682	47,741	45,940	47,018	46,664	27,231	66,450
University	40,690	19,925	20,765	30,483	10,206	1,689	39,000

Table C. 40 Unemployed population (who looked for a job) by sex, method of seeking employment, and urban/rural area, RLFS 2019

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Unemployed population who looked for a job	535,208	271,997	263,212	142,224	392,985	276,291	258,918
Arranging for financial resources ,applying for permits, licenses	73,642	29,058	44,584	21,726	51,916	38,879	34,762
Looking for land, premises, machinery, supplies, farming inputs	3,797	1,999	1,799	649	3,149	2,126	1,671
Seeking the assistance of friends, relatives or other types of intermediaries	164,701	88,834	75,867	47,140	117,561	80,793	83,907
Registering with or contacting public or private employment services	22,274	13,261	9,013	9,809	12,465	6,201	16,073
Applying to employers directly, checking at worksites, farms, factory gates, markets	238,507	122,640	115,867	39,833	198,674	143,066	95,441
Placing or answering newspaper or online job advertisements	23,076	11,762	11,313	15,911	7,164	2,995	20,081
Placing and updating resumes on professional or social networking sites online	9,212	4,442	4,769	7,156	2,056	2,230	6,982
Other method							
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 job search.							

Table C. 41 Unemployed population (who looked for a job) by sex, duration of seeking employment, and urban/rural area, RLFS 2019

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Unemployed population 16+	536,512	272,874	263,638	143,246	393,266	276,511	260,001
Less than 3 months	247,475	128,406	119,069	44,761	202,714	149,451	98,025
Less than 6 months	122,937	67,753	55,184	29,336	93,601	64,056	58,881
Less than 12 months	55,476	27,181	28,296	18,681	36,795	24,086	31,390
1 year to less than 2 years	58,275	25,845	32,430	24,969	33,306	19,151	39,124
2 years and above	52,348	23,689	28,659	25,499	26,849	19,768	32,580

Table C. 42 Time related under employment by age group sex and area of residence, RLFS 2019

Age group	Total	Sex		Residence area	
		Male	Female	Urban	Rural
Total	877,637	430,994	446,643	100,864	776,773
16-24 yrs	195,383	93,231	102,152	18,586	176,797
25-34 yrs	298,910	145,951	152,959	39,077	259,833
35-54 yrs	315,506	159,448	156,058	38,244	277,262
55-64 yrs	52,897	22,564	30,333	3,442	49,455
65+ yrs	14,941	9,801	5,141	1,515	13,426

Table C. 43 Time-related underemployed persons by sex, main branch of economic activity and urban-rural areas, RLFS 2019

ISIC High level	Total	Sex		Residence area	
		Male	Female	Urban	Rural
Total	877,637	430,994	446,643	100,864	776,773
Agriculture forestry and fishing	465,958	201,407	264,552	14,784	451,174
Mining and quarrying	13,081	11,588	1,493	281	12,800
Manufacturing	51,492	23,313	28,179	5,685	45,807
Electricity gas steam and air conditioning supply	906	744	163	511	395
Water supply, gas and remediation services	1,300	770	530	102	1,198
Construction	89,533	67,686	21,847	15,433	74,100
Whole sale and retail trade; repair of motor vehicles and motorcycles	147,979	58,305	89,673	31,330	116,649
Transportation and storage	32,234	30,295	1,939	6,970	25,263
Accommodation and food services activities	17,488	7,738	9,750	3,997	13,490
Information and communication	1,680	1,441	240	1,177	503
Financial and insurance activities	1,163	265	898	350	813
Real estate activities	901	847	54	487	414
Professional, scientific and technical activities	3,976	2,474	1,501	2,054	1,922
Administrative and support activities	6,591	1,813	4,778	2,299	4,291
Public administration and defense; compulsory social security	749	206	543	550	198
Education	10,528	3,844	6,683	2,521	8,007
Human health and social work activities	1,279	617	663	496	783
Arts, entertainment and recreation	2,620	2,290	330	1,951	670
Other services	21,578	10,989	10,589	7,176	14,402
Activities of house13holds as employers	5,113	3,324	1,789	2,137	2,977
Activities of extraterritorial organizations and bodies	1,489	1,039	450	572	917

Table C. 44 Population outside the labour force by sex, degree of labour market attachment, and urban/rural area, RLFS 2019

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Population outside the labour force (16+)	3,368,737	1,261,485	2,107,253	488,694	2,880,043	1,693,175	1,675,563
Seeking but not available	10,143	4,191	5,952	1,303	8,840	6,772	3,371
Not seeking but available	1,532,407	540,857	991,550	195,040	1,337,367	1,047,373	485,034
Neither seeking nor available but want employment	138,972	45,714	93,258	21,868	117,105	58,799	80,173
Neither seeking nor available who do not want employment	1,687,215	670,722	1,016,493	270,484	1,416,732	580,231	1,106,985

Table C. 45 Population outside the labour force by sex, main source of livelihood, and urban/rural area, RLFS 2019

	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Population outside the labour force (16+)	3,368,737	1,261,485	2,107,253	488,694	2,880,043	1,693,175	1,675,563
Parents	1,091,854	538,831	553,023	212,933	878,921	256,587	835,267
Husband/wife	392,857	49,587	343,270	92,451	300,406	189,452	203,405
Child	80,024	16,029	63,995	19,401	60,623	20,262	59,762
Other family members	229,504	85,595	143,909	75,653	153,851	41,464	188,040
Pension	9,134	6,334	2,800	5,503	3,631	2,029	7,105
Own production	1,350,747	482,452	868,295	42,710	1,308,037	1,108,274	242,474
Assistance received [VUP]	70,093	18,988	51,105	3,878	66,215	23,185	46,908
Assistance received [FARG]	7,593	1,673	5,920	368	7,225	1,403	6,190
Assistance received [Church, Other NGO]	4,356	1,783	2,572	972	3,383	877	3,479
Assistance from friends	35,723	11,848	23,875	6,895	28,828	11,283	24,440
Revenue from own property/savings	37,356	16,448	20,908	16,202	21,154	12,067	25,289
Past work	48,707	25,259	23,448	6,820	41,888	25,662	23,045
Scholarship	9,843	6,431	3,412	4,394	5,449	457	9,386
Other	947	225	722	515	432	174	773

Table C. 46 Working age population, by reported situation status

	Rwanda			Urban		Rural	
	Total	Male	Female	Male	Female	Male	Female
Total	7,231,536	3,394,436	3,837,100	730,154	749,088	2,664,282	3,088,012
Working for pay or profit	2,121,370	1,282,361	839,009	379,485	299,467	902,876	539,542
Unemployed	2,020,322	928,721	1,091,601	185,687	240,045	743,034	851,557
Studying, in training	834,630	435,921	398,709	122,211	103,861	313,710	294,848
Household, family responsibilities	625,412	124,908	500,504	6,429	48,224	118,479	452,279
Farming or fishing mainly for household or family consumption	985,725	374,479	611,246	10,003	16,863	364,476	594,383
Long-term illness, injury or disability	294,050	120,087	173,963	9,015	12,314	111,072	161,649
Retired, pensioner, too old to work	343,716	124,388	219,329	16,401	27,780	107,987	191,549
Participated in National service activities(Urugerero)	5,297	2,896	2,400	757	443	2,140	1,957
Other(Specify)	1,014	675	339	167	91	508	248

Table C. 47 Average time spent in own-use production work by sex, type of own-use production and urban/rural area, RLFS 2019

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total own-use production	5,640,782	2,264,919	3,375,863	918,155	357,925	560,230	4,722,627	1,906,994	2,815,634
Collecting firewood for the household including travel time	4.3	3.8	4.6	4	3.3	4.4	4.3	3.8	4.6
Fetching water for the household, including travel time	3.9	3.8	4	3.4	3	3.7	4	3.8	4.1
Searching for fodder or grazing for the household's animals	7.9	9.2	6.9	6.3	7.2	5.5	8	9.2	6.9
Manufacturing household goods for own or family use	6.9	3.7	7.4	5.9	4.3	6.6	6.9	3.7	7.5
Constructing your dwelling, making major repairs on it, farm buildings, private roads, or wells	5.3	6.1	4	4.4	4.7	4.1	5.4	6.2	4
Doing household chores including shopping, preparing	9.5	5	11.1	9.6	5.9	11.3	9.5	4.7	11.1

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
meals									
Looking after children and elderly	6.6	3.5	7.5	8.5	4.7	9.7	6.3	3.3	7.1
Total number of persons(16+)	7,231,536	3,394,436	3,837,100	1,479,242	730,154	749,088	5,752,294	2,664,282	3,088,012
Collecting firewood for the household including travel time	1.6	1	2.1	0.3	0.2	0.5	1.9	1.2	2.5
Fetching water for the household, including travel time	1.7	1.4	2	0.6	0.5	0.8	2	1.6	2.3
Searching for fodder or grazing for the household's animals	2.6	3	2.3	0.3	0.3	0.2	3.3	3.8	2.8
Manufacturing household goods for own or family use	0.1	0	0.2	0	0	0	0.1	0	0.2
Constructing your dwelling, making major repairs on it, farm buildings, private roads, or wells	0.3	0.4	0.2	0.1	0.1	0.1	0.3	0.5	0.2
Doing household chores including shopping, preparing meals	5.7	1.7	9.3	5.1	2.1	8.1	5.9	1.6	9.7
Looking after children and elderly	2.1	0.5	3.5	2.2	0.6	3.8	2.1	0.5	3.4

Table C. 48 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, RLFS 2019

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total (16+ yrs)	6.1	5.4	6.7	1.3	1	1.5	7.3	6.6	7.9
16-24 yrs	5.8	5.7	6	1.3	1.2	1.3	7.1	6.9	7.4
25-34 yrs	6.1	5	7.2	1.1	0.8	1.5	7.8	6.5	9
35-54 yrs	6.4	5.5	7.2	1.2	0.8	1.7	7.6	6.7	8.3
55-64 yrs	6.7	5.8	7.4	1.7	1.3	2.1	7.5	6.6	8.1
65+ yrs	4.8	4.9	4.8	1.8	1.4	2.1	5.1	5.3	5
Employed	5	4.3	6	0.9	0.7	1.1	6.5	5.5	7.8
Unemployed	7.1	6.7	7.6	1.9	1.4	2.4	9	8.4	9.5
Outside labour force	6.9	6.8	6.9	1.7	1.5	1.8	7.8	7.7	7.8

Table C. 49 Average time spent per week on own-use provision of services of working age population by sex, age group and urban/rural area, RLFS 2019

	Rwanda			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total (16+ years)	8.1	2.6	13	7.5	2.8	12	8.3	2.6	13.3
16-24 yrs	5.9	2.2	9.3	5.4	2.6	7.8	6	2.1	9.8
25-34 yrs	10.9	3.3	18	9.5	3.3	15.8	11.4	3.3	18.7
35-54 yrs	9.1	2.8	14.6	8.3	2.9	14.4	9.2	2.8	14.7
55-64 yrs	7	2.1	10.7	6.1	1.8	10.1	7.2	2.2	10.8
65-74 yrs	5.8	2.2	8.3	5.1	1.6	7.6	5.9	2.3	8.3
Employed	7.1	2.6	12.7	5.8	2.7	9.5	7.5	2.6	13.9
Unemployed	10.5	3.7	17.2	11.9	4.3	18.9	10	3.6	16.6
Outside labour force	8.8	2.4	12.6	9	2.5	13.2	8.7	2.4	12.5

Table C. 50 Internal and international migrants by labour force status, sex, urban/rural area, RLFS 2019

	Total	Employed	Unemployed	Outside labour force	LFPR	Emp-Pop	UR
Total migrants (16+ yrs)	1,115,760	683,465	105,381	326,913	70.7	61.3	13.4
Male	553,207	394,831	49,250	109,126	80.3	71.4	11.1
Female	562,553	288,634	56,132	217,787	61.3	51.3	16.3
Urban	519,483	353,597	49,321	116,566	77.6	68.1	12.2
Rural	596,277	329,868	56,061	210,348	64.7	55.3	14.5
Internal migrants (16+ yrs)	1,053,174	648,980	98,491	305,703	71.0	61.6	13.2
Male	517,923	372,813	44,727	100,383	80.6	72.0	10.7
Female	535,250	276,167	53,764	205,320	61.6	51.6	16.3
Urban	488,984	335,511	45,542	107,931	77.9	68.6	12.0
Rural	564,190	313,469	52,949	197,772	64.9	55.6	14.5
International migrants (16+ yrs)	62,586	34,486	6,890	21,210	66.1	55.1	16.7
Male	35,284	22,018	4,523	8,743	75.2	62.4	17.0
Female	27,303	12,467	2,368	12,467	54.3	45.7	16.0
Urban	30,499	18,086	3,778	8,635	71.7	59.3	17.3
Rural	32,087	16,400	3,112	12,576	60.8	51.1	15.9

Table C. 51 Internal and international migrants by labour force status and main reason for migration, RLFS 2019

Main reason for migration	Total	Employed	Unemployed	Outside labour force	LFPR	Emp-Pop	UR
Total migrants (16+ yrs)	1,115,760	683,465	105,381	326,913	70.7	61.3	13.4
Parents moved	94,477	24,132	9,570	60,775	35.7	25.5	28.4
To live with relatives	134,140	48,023	18,788	67,329	49.8	35.8	28.1
To attend school	48,026	14,976	6,680	26,371	45.1	31.2	30.8
Marriage	95,633	36,532	13,287	45,814	52.1	38.2	26.7
Family quarrel	12,788	6,251	2,262	4,275	66.6	48.9	26.6
Divorce	4,912	3,582	637	693	85.9	72.9	15.1
New job	185,734	176,956	2,151	6,627	96.4	95.3	1.2
Job transfer	17,826	16,915	453	458	97.4	94.9	2.6
To look for work	194,276	162,573	15,676	16,028	91.8	83.7	8.8
Looking for land to farm	38,880	22,954	3,156	12,771	67.2	59.0	12.1
Loss of employment	41,194	24,399	6,121	10,674	74.1	59.2	20.1
Employment of spouse	19,584	9,153	2,415	8,016	59.1	46.7	20.9
Coming back in country	225,364	135,175	23,962	66,228	70.6	60.0	15.1
Other	2,925	1,846	225	854	70.8	63.1	10.9
Internal migrants (16+ yrs)	1,053,174	648,980	98,491	305,703	71.0	61.6	13.2
Parents moved	89,363	22,890	9,015	57,458	35.7	25.6	28.3
To live with relatives	124,840	43,508	17,919	63,413	49.2	34.9	29.2
To attend school	45,515	13,648	6,560	25,307	44.4	30.0	32.5
Marriage	93,449	36,237	13,255	43,958	53.0	38.8	26.8
Family quarrel	11,267	5,652	1,686	3,930	65.1	50.2	23.0
Divorce	4,248	2,986	604	657	84.5	70.3	16.8
New job	180,717	172,209	2,109	6,399	96.5	95.3	1.2
Job transfer	16,946	16,035	453	458	97.3	94.6	2.7
To look for work	190,026	159,122	15,299	15,605	91.8	83.7	8.8
Looking for land to farm	38,880	22,954	3,156	12,771	67.2	59.0	12.1
Loss of employment	37,155	22,234	5,179	9,742	73.8	59.8	18.9
Employment of spouse	18,789	8,743	2,284	7,762	58.7	46.5	20.7
Coming back in country	200,576	121,783	20,866	57,927	71.1	60.7	14.6
Other	1,400	977	105	318	77.3	69.8	9.7

Main reason for migration	Total	Employed	Unemployed	Outside labour force	LFPR	Emp-Pop	UR
International migrants (16+ yrs)	62,586	34,486	6,890	21,210	66.1	55.1	16.7
Parents moved	5,113	1,242	555	3,317	35	24	31
To live with relatives	9,300	4,515	869	3,916	58	49	16
To attend school	2,511	1,328	119	1,065	58	53	8
Marriage	2,184	295	32	1,857	15	14	10
Family quarrel	1,521	599	577	345	77	39	49
Divorce	664	596	32	36	95	90	5
New job	5,016	4,746	41	228	95	95	1
Job transfer	880	880	0	0	100	100	0
To look for work	4,250	3,450	378	422	90	81	10
Looking for land to farm	4,039	2,165	942	932	77	54	30
Loss of employment	795	410	130	255	68	52	24
Employment of spouse	24,788	13,392	3,095	8,301	67	54	0
Coming back in country	1,525	869	120	536	65	57	12
Other	62,586	34,486	6,890	21,210	66	55	17

Table C. 52 Migrant workers by sex, urban/rural area, prior place of residence and branch of economic activity, RLFS 2019

	Total	Male	Female	Urban	Rural	Internal migrants	External migrants
Total migrant workers (employed migrants)	683,465	394,831	288,634	353,597	329,868	648,980	34,486
Agriculture, forestry and fishing	111,841	58,906	52,934	8,553	103,287	102,711	9,130
Manufacturing	12,132	10,788	1,344	582	11,550	12,132	-
Mining and quarrying	33,443	18,755	14,688	16,532	16,911	32,437	1,006
Electricity, gas stream and air condition	4,738	4,416	323	2,423	2,316	4,609	130
Water supply, gas and remediation services	1,787	909	878	1,232	556	1,787	-
Construction	64,467	56,234	8,232	24,518	39,948	61,592	2,875
Wholesale and retail trade, repair of motor vehicles ...	108,558	52,413	56,145	62,778	45,781	102,176	6,383
Transportation and storage	34,035	32,833	1,202	18,814	15,221	32,759	1,276
Accommodation and food services	25,431	13,320	12,111	15,987	9,444	24,104	1,327
Information and communication	3,856	2,247	1,608	3,376	480	3,385	471
Financial and insurance activities	12,264	7,295	4,970	9,377	2,887	11,794	471
Real estate activities	1,000	682	319	470	531	1,000	-
Professional, scientific and technical activities	12,342	8,031	4,311	8,455	3,887	10,455	1,887
Administrative and support activities	17,184	12,346	4,838	13,907	3,276	16,996	188
Public administration and defense, compulsory	20,467	14,672	5,795	11,898	8,569	19,468	999
Education	30,755	16,345	14,410	12,845	17,910	28,966	1,789
Human health and social work activities	15,206	8,745	6,461	11,486	3,720	13,136	2,069
Arts, entertainment and recreation	3,848	2,713	1,135	2,793	1,055	3,506	342
Other services	15,453	8,720	6,734	9,656	5,797	14,808	646
Activities of households as employers	147,226	60,649	86,576	112,330	34,896	144,299	2,926
Activities of extraterritorial organizations	7,433	3,813	3,620	5,585	1,848	6,861	572

Table C. 53 Summary labour force indicators by District, RLFS 2019

	Employed	Outside labour force	Labour force participation rate	Employment-to-population ratio	LU4 - Composite measure of labour underutilization
City of Kigali	707,953	404,351	67.9	56.2	40.5
Nyarugenge	150,499	91,283	66.5	55.3	42.8
Gasabo	305,811	185,212	66.8	54.8	41.9
Kicukiro	251,642	127,856	70.2	58.6	37.4
South province	664,480	855,152	47.3	41	59.4
Nyanza	76,224	117,211	42.5	37.4	64.9
Gisagara	93,593	89,363	54.5	47.7	55.3
Nyaruguru	53,768	93,398	39.7	34.7	64.7
Huye	104,017	98,893	54.5	47.9	44.7
Nyamagabe	87,981	121,004	44.2	40.6	61.8
Ruhango	72,584	84,972	49.3	43.3	60.5
Muhanga	72,880	124,890	41.3	34.2	64.7
Kamonyi	103,434	125,420	50.4	40.9	60.9
West Province	599,932	727,609	49.6	41.5	62.4
Karongi	77,241	97,729	49.5	39.9	64.5
Rutsiro	85,905	90,633	52.6	45	69.3
Rubavu	112,220	104,400	55.8	47.6	54.6
Nyabihu	64,930	69,321	55.6	41.6	65.9
Ngororero	63,636	84,563	47.3	39.7	63.8
Rusizi	108,711	167,050	42.8	37.2	64.9
Nyamasheke	87,289	113,913	47	40.6	55.7
North Province	551,112	569,669	53.1	45.4	58.7
Rulindo	117,857	132,334	52.3	42.5	55.1
Gakenke	112,445	112,179	53.3	46.8	65.7
Musanze	144,794	105,238	61.5	53	50.4
Burera	87,408	94,191	51.3	45.2	60.1
Gicumbi	88,608	125,726	45.4	38.5	64.1
East province	750,444	811,958	52	44.4	56.7
Rwamagana	107,404	126,858	48.7	43.5	60.7
Nyagatare	125,468	97,117	60	51.6	45.2
Gatsibo	134,614	122,690	55.7	48.6	46.8
Kayonza	108,935	115,470	51.3	46	49.9
Kirehe	94,101	118,693	49	40.4	68.3
Ngoma	75,563	102,350	49	37.6	73
Bugesera	104,359	128,780	49	41.3	57.3

Table C. 54 Employment by District and broad branches of economic activity, according to sex, RLFS 2019

District	Total				Male				Female			
	Agriculture	Industry	Services	Total	Agriculture	Industry	Services	Total	Agriculture	Industry	Services	Total
	1,225,151	611,970	1,436,799	3,273,921	563,414	449,301	825,638	1,838,353	661,737	162,669	611,162	1,435,568
Nyarugenge	7,264	25,420	117,815	150,499	2,906	19,343	65,178	87,427	4,358	6,077	52,637	63,072
Gasabo	30,919	67,039	207,854	305,811	14,327	50,704	117,749	182,781	16,592	16,334	90,105	123,031
Kicukiro	13,751	44,085	193,806	251,642	6,040	33,939	104,039	144,018	7,712	10,146	89,767	107,624
Nyanza	26,745	15,465	34,014	76,224	13,488	9,389	21,032	43,909	13,257	6,076	12,982	32,316
Gisagara	59,762	8,820	25,011	93,593	28,592	5,749	15,929	50,269	31,170	3,072	9,082	43,323
Nyaruguru	29,353	10,278	14,137	53,768	15,795	7,259	8,170	31,223	13,558	3,019	5,968	22,545
Huye	30,061	18,604	55,353	104,017	15,541	15,165	28,607	59,313	14,520	3,439	26,746	44,704
Nyamagabe	51,371	14,089	22,521	87,981	25,686	8,636	15,229	49,550	25,685	5,454	7,292	38,431
Ruhango	33,473	16,644	22,466	72,584	17,060	9,450	14,210	40,720	16,413	7,194	8,257	31,864
Muhanga	19,162	20,547	33,171	72,880	9,690	14,764	17,190	41,644	9,472	5,783	15,981	31,235
Kamonyi	33,183	22,574	47,677	103,434	18,098	17,441	29,662	65,201	15,085	5,133	18,015	38,233
Karongi	39,664	14,208	23,369	77,241	17,150	9,124	14,150	40,425	22,514	5,084	9,219	36,817
Rutsiro	40,157	23,113	22,635	85,905	19,053	15,907	12,695	47,655	21,104	7,206	9,940	38,250
Rubavu	27,215	17,693	67,312	112,220	14,275	10,745	32,198	57,219	12,940	6,947	35,114	55,001
Nyabihu	34,703	9,481	20,747	64,930	12,958	6,438	11,583	30,979	21,745	3,043	9,163	33,951
Ngororero	30,069	19,292	14,274	63,636	9,953	16,188	10,893	37,034	20,116	3,105	3,381	26,602
Rusizi	40,665	17,000	51,046	108,711	20,316	13,354	28,312	61,982	20,349	3,646	22,734	46,729
Nyamasheke	35,065	12,484	39,740	87,289	16,482	9,791	22,681	48,953	18,583	2,693	17,059	38,336
Rulindo	47,213	28,559	42,086	117,857	16,278	20,752	30,731	67,761	30,935	7,807	11,355	50,096
Gakenke	62,786	27,597	22,062	112,445	28,851	21,051	14,996	64,898	33,935	6,546	7,065	47,546
Musanze	49,626	22,997	72,171	144,794	20,113	16,206	37,481	73,800	29,514	6,791	34,689	70,994
Burera	46,188	18,265	22,956	87,408	16,529	12,827	13,000	42,356	29,659	5,438	9,956	45,052
Gicumbi	48,995	16,693	22,920	88,608	23,208	13,426	15,786	52,420	25,787	3,267	7,134	36,188
Rwamagana	32,962	25,022	49,420	107,404	17,820	18,884	27,630	64,333	15,142	6,138	21,790	43,071
Nyagatare	73,586	14,337	37,545	125,468	35,207	10,142	23,621	68,970	38,379	4,195	13,924	56,498
Gatsibo	80,654	15,175	38,785	134,614	36,936	11,117	21,482	69,536	43,718	4,058	17,303	65,078
Kayonza	63,417	17,969	27,548	108,935	29,260	14,111	16,381	59,752	34,158	3,859	11,167	49,183
Kirehe	59,505	13,824	20,773	94,101	26,314	9,306	14,062	49,682	33,191	4,518	6,711	44,420
Ngoma	42,734	10,141	22,688	75,563	19,317	6,957	15,613	41,887	23,417	3,184	7,075	33,675
Bugesera	34,905	24,556	44,898	104,359	16,172	21,138	25,345	62,656	18,733	3,418	19,553	41,703

Table C. 55: Distribution of population by activity status, according to district

District	Working age population(16+)				Person aged 25-54 years old			
	Employed	Subsistence agriculture	Inactive	Total	Employed	Subsistence agriculture	Inactive	Total
Total	45.27	27.69	27.04	100	57.5	27.8	14.8	100.0
Nyarugenge	55.3	4.6	40.1	100.0	66.5	4.0	29.5	100.0
Gasabo	54.8	11.0	34.2	100.0	65.0	11.3	23.7	100.0
Kicukiro	58.6	3.8	37.7	100.0	70.2	3.6	26.2	100.0
Nyanza	37.4	35.3	27.3	100.0	47.7	38.8	13.5	100.0
Gisagara	47.7	32.6	19.8	100.0	60.3	32.0	7.7	100.0
Nyaruguru	34.7	36.8	28.5	100.0	49.7	37.8	12.5	100.0
Huye	47.9	23.6	28.5	100.0	62.1	22.0	15.9	100.0
Nyamagabe	40.6	37.4	22.0	100.0	54.0	38.4	7.7	100.0
Ruhango	43.3	33.9	22.8	100.0	55.5	31.5	13.0	100.0
Muhanga	34.3	43.4	22.3	100.0	43.6	44.5	11.9	100.0
Kamonyi	40.9	28.8	30.3	100.0	53.1	31.4	15.6	100.0
Karongi	39.9	39.9	20.2	100.0	49.5	43.4	7.1	100.0
Rutsiro	45.0	36.4	18.6	100.0	54.8	37.0	8.2	100.0
Rubavu	47.6	15.7	36.7	100.0	61.4	16.2	22.4	100.0
Nyabihu	41.6	28.6	29.8	100.0	54.1	28.0	17.9	100.0
Ngororero	39.7	42.0	18.3	100.0	49.3	40.3	10.4	100.0
Rusizi	37.2	30.6	32.2	100.0	49.4	32.0	18.6	100.0
Nyamasheke	40.6	31.8	27.6	100.0	53.4	32.7	13.9	100.0
Rulindo	42.5	34.5	23.1	100.0	50.5	41.2	8.3	100.0
Gakenke	46.8	36.6	16.5	100.0	56.9	36.1	7.1	100.0
Musanze	53.0	19.4	27.6	100.0	67.9	17.8	14.3	100.0
Burera	45.2	35.0	19.8	100.0	55.8	35.8	8.5	100.0
Gicumbi	38.5	40.9	20.7	100.0	52.4	38.8	8.8	100.0
Rwamagana	43.5	28.7	27.9	100.0	54.8	30.2	15.0	100.0
Nyagatare	51.6	23.1	25.3	100.0	65.8	21.8	12.4	100.0
Gatsibo	48.6	29.2	22.3	100.0	63.8	27.0	9.2	100.0
Kayonza	46.0	29.6	24.4	100.0	61.4	28.4	10.2	100.0
Kirehe	40.4	36.0	23.6	100.0	49.4	40.0	10.7	100.0
Ngoma	37.6	43.0	19.4	100.0	44.9	47.1	8.1	100.0
Bugesera	41.3	25.7	33.0	100.0	57.1	28.2	14.7	100.0

Table C. 56: Labour market indicators and educational type (general and Technical), RLFS 2019

Attainment status of vocational and general trainings	LFPR	Empl/pop ratio	Unemployment rate	Labour underutilization rate	Working age population
Rwanda	53.4	45.3	15.2	55.7	7,231,536
No level completed	51.6	44.5	13.6	59.3	3,356,187
Completed general	51.8	43	16.9	53.8	3,204,799
Completed TVET	70.5	59.6	15.4	48	670,550
Urban	67	56.7	15.3	37.8	1,479,242
No level completed	66.5	59	11.2	39.4	299,488
Completed general	64	53.3	16.6	37.6	951,370
Completed TVET	80.1	67.8	15.4	36.7	228,385
Rural	49.9	42.3	15.2	60.7	5,752,294
No level completed	50.1	43.1	13.9	61.4	3,056,700
Completed general	46.6	38.7	17.1	61.3	2,253,429
Completed TVET	65.5	55.4	15.5	54.1	442,165
Male	62.8	54.2	13.8	47.4	3,394,436
No level completed	61.4	53.7	12.6	52.4	1,487,193
Completed general	60.1	51.2	14.8	44.7	1,534,087
Completed TVET	79.9	68.3	14.6	40	373,156
Female	45.1	37.4	17	63.7	3,837,100
No level completed	43.7	37.3	14.7	65.7	1,868,994
Completed general	44.2	35.5	19.6	62.7	1,670,712
Completed TVET	58.7	48.8	16.9	58.9	297,394

Table C. 57: ICT indicators

	Number of persons	Percentage
Population aged 10 years and above	9,079,534	
Digital literacy	1,855,114	20.4
Possession of Mobile phone	3,628,809	40.0
Computer Literacy	1,389,021	15.3
Percentage of individual age 10 yrs and above using social media	1,173,242	12.9
Percentage of persons 10 years and above who used internet	1,164,677	12.8
Household with TV	388,570	13.6
Household with Telephone (Any member has a phone)	2,047,832	71.7

Annex E: Officials involved in the Labour Force Survey 2019

NATIONAL COORDINATORS

MURANGWA Yusuf, DG, NISR
MURENZI Ivan, DDG, NISR

TECHNICAL DIRECTORS

Michel NDAKIZE RUGAMBWA
James BYIRINGIRO

DATA COLLECTION

Survey Coordinators

BYIRINGIRO James
MUKUNDABANTU Jean Marc

Survey Supervisors

TUYISENGE Methode
NGIRINSHUTI Fidele
AYINGENEYE Seraphine
UWAMAHORO Pacifique
NDAYAMBAJE Emmanuel
MUGENZI Gilbert
TUYISHIME Sadi

LFS DATA ANALYSTS & REPORT WRITTING

BYIRINGIRO James
MUKUNDABANTU Jean Marc
TUYISENGE Methode
UWAMAHORO Pacifique
MUGENZI Gilbert
NGIRINSHUTI Fidele
AYINGENEYE Seraphine
TUYISHIME Sadi

Data Processing

MUKANSHIMIYE Peruth
HARELIMANA Massoud

Report Editing & Design

TUSISENGE Methode
MUKUNDABANTU Jean Marc

