



# Labour Force Survey Trends

## - May 2019 (Q2)-

Labour Force Survey Trends, May 2019 (Q2) report is produced by the National Institute of Statistics of Rwanda (NISR).

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### Labour Force Survey Trends

### May 2019

### July 2019

#### 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 programmes and policies as stipulated in the first National Strategy for Transformation (NST1), Sustainable Development Goals (SDGs) as well as Vision 2020 and 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 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 provide data on the structure and trends of labour force, employment and unemployment as well as other related labour market statistics for the implementation and evaluation of economic and social policies related to employment creation, income generation, skills development, and related decent work policies.

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 biannual 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 present report is for the second quarter (Q2) of 2019 whose data collection was conducted in May 2019.

NISR congratulates all those who contributed in one way or the other in this exercise. In particular, NISR expresses its gratitude to the survey coordinators, supervisors, team leaders, enumerators, drivers, and respondents for their valuable time that made this survey possible.

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 LFS rounds to contribute to enhancing Rwandans' Economic development.

Yusuf MURANGWA Director General of NISR



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#### **Executive summary**

The sample design of labour force survey presents an advantage for estimating trend of labour market indicators with a higher precision due to its rotational design. In this report, the survey results are compared for February 2017, February 2018, February 2019 (Q1) and May 2019 (Q2). However, for the sake of completeness, the tables are presented in most cases with the complete time series including results of the August labour force surveys (LFS).

In May 2019 (Q2), the working age population (16 years and above) was around 7.1 million and the population in the labour force constituted the majority of working age population. The proportion of population in labour force has slightly increased compared to the previous quarter of the survey. In May 2019 (Q2), the youth (16-30 years old) constituted 43.0 percent of the population in the labour force and this proportion remained relatively the same as compared to the previous Quarter of the survey (February 2019(Q1).

The employment-to-population ratio has remained relatively stable from February 2018. It was 44.8 percent in February 2018, 44.9 percent in February 2019 (Q1) and 45.7 percent in May 2019(Q2). As a result of stability in employment and a slight increase in unemployment in May 2019, the labour force participation rate has slightly increased to 53.8 percent in May 2019 (Q2) from 52.5 percent in February 2019(Q1).

The proportion of the working age population outside the labour force remained relatively stable at around 47 percent. As compared to the previous quarter, population out of labour force was 47.5 in February 2019 (Q1) and slightly declined to 46.3 percent in May 2019(Q2). Available non-job seekers constituted a substantial category of the population outside labour force. It has been slightly declined to 20.9 percent of the working age population in LFS May (Q2) as compared to 21.2 percent in February 2019 (Q1), and 18.9 percent in February 2018. The substantial proportion of available non-job seekers remained those involved in subsistence agriculture (66.7 percent) and the share of subsistence agriculture in population outside labour force was 48.2 percent in May 2019(Q2) as compared to 53.1 percent in February 2019(Q1).

The number of employed persons has increased from about 3,093,000 in February 2018 to about 3,259,000 in May 2019 (Q2). The share of employment in transportation and storage, accommodation and food services has generally increased. On the other hand, the share of employment in agriculture has generally decreased. Broadly, employment in agriculture sector declined by about 4.6 percentage points from February 2018 to May 2019 (Q2), employment in the industry sector remained relatively constant in the same period and employment in the service sector increased by about 4.7 percentage points.

The full count of workers in the agriculture sector in May 2019 (Q2) was around 51.2 percent of the total working age population including agriculture as secondary activity. The corresponding proportion for February 2019 (Q2) was 56.0 percent.

The proportion of persons in market oriented agriculture has slightly increased by 1.7 percentage points from February 2019(Q2) to May 2019 (Q2). The proportion of agricultural workers exclusively in subsistence agriculture has decreased by 1 percentage points during that period.

The share of agricultural workers in total workforce has decreased by 2.9 percentage points from 63.7 percent in February 2019(Q1) to 60.8 percent in May 2019(Q2). It has relatively decline for both males and female comparing to the previous rounds of LFS.

The May 2019 (Q2) labour force survey results show that employment slightly increased in most occupational categories between February 2019(Q1) and May 2019 (Q2). The largest increase was recorded for information and communication (41,269) and construction (29,571). On the other hand, the number of persons employed in mining occupations declined by about 36,810 and in agriculture forest and fishing by about 29,186 as compared to the previous quarter. The May 2019 (Q2) results show stability in the proportion of employees and of own account workers. The number of own account workers remained relatively the same as compared to the previous round, and the proportion of employee has increased by about 0.7 percentage point in the same period.

The results showed that the unemployment rate was 15 percent in May 2019(Q2). It has slightly increased by 0.5 percentage point from 14.5 percent registered in February 2019(Q1).

The analysis of the unemployment rate dynamics for males and females between February 2018 and May 2019(Q2) reveals a significant increase of unemployment rate among males (1.8 percentage points) as compared to the decline among females. On the other hand, February 2019(Q1)-to-May 2019(Q2) comparison shown that unemployment rate increased among females and remain stable among males.

Labour underutilization which includes unemployment, time-related underemployment and potential labour force declined by 1.4 percentage point as compared to February 2019 (Q1) (from 56.4 to 55.0 percent in May 2019(Q2)) and showing a declining trend in comparison with February 2018. As it was expected, the labour underutilization rate has been higher among females as compared to males and the gap has slightly widened overtime.

Working age population 16 years old and over 7,130,333 persons									
	ide the labou bloyed nor un <b>3,297,561</b> p	employed)	Labour force(The sum of employed and unemployed) 3,832,772 persons Labour force participation rate						
SubsisExclusivelOther outsidetencey studentsLF(Elderly,agriculdisable,disable,tureidiscouragediob		53.8 Employed (All who worked for pay or profit) 3,258,935persons Employment to population ratio: 45.7			Unemployed (All not employed but seeking and available to work for pay or profit) 573,837persons Unemployment rate:15.0%				
		seekers)	Agriculture excluding subsistence foodstuff production	Industry	Services	Unemployed but engaged in subsistence agriculture	Other unemployed		
48.2%	.2% 20.6% 31.2%		38.0%	17.5%	44.5 %	52.4%	47.6%		
labou force	Potential labour forceOthersOther employed1,497,7121,799,849862,8452,396,090								
	Labour underutilization ( <b>2,934,394</b> persons): Unemployed ( <b>573,837</b> ) + Time-related underemployed( <b>862,845</b> )) + Potential labour force ( <b>1,497,712</b> ) Composite measure of labour underutilization ( <b>55.0%</b> ) Source: National Institute of Statistics of Rwanda (NISR), Labour Force Surveys (LESs), May								

#### Rwanda Labour force survey, May 2019 (Q2): Summary labour force indicators

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Surveys (LFSs), May 2019(Q2)

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#### **Chapter 1: Introduction**

The Rwanda Labour Force Survey (LFS) started in 2016 with an annual sample spread into two rounds to provide bi-annual estimates of main labour market indicators at National level. From February 2019, the sample was spread into four rounds to provide estimates of labour market indicators at national level on quarterly basis. The main objective of the survey is to provide data on the structure and trends of labour force, employment and unemployment as well as other related labour market statistics for the implementation and evaluation of economic and social policies related to employment creation, income generation, skills development, and related decent work policies.

The current second quarterly survey is designed according to a two-stage stratified design with a rotation scheme. At the first stage of sampling, a stratified sample of 288 census enumeration areas, called primary sampling units (PSUs) are drawn from the 2012 census-sampling frame with probabilities proportional to size measured in terms of number of households according to the latest census of population. The strata are composed of the 30 administrative districts of the country, sub-divided into urban and rural areas.

At the second stage of sampling; 16 households were selected in three quarter of the PSUs and 24 households<sup>1</sup> were selected in a quarter of PSUs, with equal probabilities, after a fresh listing of the households in the new sample PSUs. All household members in the sample are then selected for survey interview.

According to the rotation scheme of the survey, 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. The main purpose of sample rotation is to control the variation of the sample and thus improve the precision of the estimates of change.

The sample design of the labour force survey presents an advantage for estimating trend of labour market indicators with a higher precision due to its rotational design. In the present report, the survey results are mainly compared for February 2018, February 2019 (Q1) and May 2019 (Q2). However, in some sections, the tables or figures are presented with the complete time series since August 2016 labour force surveys.

The resulting estimates of the main labour force indicators at the national level have standard errors of about 0.8 percent.

The focus of the present report is the analysis of trends of employment and labour underutilization including unemployment at the national level by selected demographic and socioeconomic characteristics such as sex, age group, educational attainment, occupation and industry.

<sup>&</sup>lt;sup>1</sup> The intake of 24 households in one fourth of PSUs is a consequence of sample size adjustment caused by the transition from bi-annual sample design to quarterly sample design in August 2018.

The survey results analyzed in this report are presented under seven chapters including this introduction. The other chapters deal with Trend of main indicators, labour force participation, employment, unemployment and labour underutilization, population outside labour force and work in agriculture.

#### **Chapter 2: Trends of main indicators**

#### 2.1 Working age population

The sample design of labour force survey presents an advantage for estimating trend of labour market indicators with a higher precision due to its rotational design. The present chapter provides information on labour force trend of estimates of main indicators from the labour force survey since February 2018. The survey results are compared for February 2018, February 2019 (Q1) and May 2019 (Q2). However, for the sake of completeness, the tables and figures are presented in most cases with the complete time series including results of the August surveys.

In May2019 (Q2), the working age population (16 years old and above) was around 7.1 million and the population in the labour force constituted the majority of the working age population. The proportion of the population in the labour force slightly increased compared to February 2019(Q1). In May 2019 (Q2), the youth (16-30 years old) constituted 43 percent of the population in the labour force.

Figure 2.1 shows the change in the working age population and its components over time. From February 2018 to May 2019 (Q2), the working age population increased from 6,904,646 persons to 7,130,333 persons corresponding to an increase rate of about 3.3 percent.

Among the population in working age who were outside the labour force, some were involved in subsistence agriculture, students and others were inactive or involved in other forms of work. As shown in Figure 2.1 below a substantial part of the population outside the labour force was involved in foodstuff production for own use.



Figure 2. 1: Trend of the main component of the working age population (,000s)

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

### 2.2 Labour force participation rate, employment to population ratio and unemployment rate

Figure 2.2 illustrates the trends of some of the key labour market indicators. In May 2019(Q2), the unemployment rate stood at 15.0 percent and has slightly increased from 14.5 percent in February 2019(Q1).

The employment-to-population ratio had slightly increased to 45.7 percent in May 2019 (Q2) from 44.9 percent in February 2019(Q1).

Due to the increasing unemployment rate and employment-to-population ratio, the labour force participation rate had increased from 52.5 percent in February 2019(Q1) to 53.8 percent in May 2019(Q2).



Figure 2. 2: Trend of the main labour force indicators

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

UR=Unemployment rate, EPR=Employment-to-population Ratio, LFPR=Labour Force Participation Rate

#### 2.3 Population outside labour force

Figure 2.3 presents the trend of the proportion of the working age population who was outside the labour force according to different categories. The results show that the proportion of the working age population outside the labour force had slightly decreased to 46.3 percent in May 2019(Q2) as compared to 47.5 percent in February 2019(Q1). Available non-job seekers constituted a substantial category of the population outside labour force. It represented 20.9 percent of the working age population in May 2019 (Q2) as compared to 21.2 in February 2019(Q1) and 18.9 percent in February 2018.

An important sub-category of the available non-job seekers 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). The proportion of discouraged jobseekers among the working age population outside the labour force is showing an increasing trend, it was 15.8 percent in May 2019 (Q2) as compared to 15.0 percent in February 2019(Q1) and 13.5 percent in February 2018.



Figure 2. 3: Trend of the ratio of population outside labour force to working age population

#### 2.4 Subsistence foodstuff production participation rate

In Rwanda, there is a substantial number of working age persons who are involved in subsistence agriculture and consequently excluded from the count of the labour force according to the 2013 international standards on statistics of work, employment and labour underutilisation. The relatively low labour force participation reported in Figure 2.2 above reflects the relatively high share of subsistence foodstuff producers among persons outside labour force.

Figure 2.4 presents the trend of the proportion of the working age population who were outside the labour force but engaged in production of foodstuff for own use. It can be observed that the rate of participation in subsistence foodstuff production fluctuates across high and low seasons of agriculture; it is higher in February and lower in August and May which are considered as relatively low agriculture season as compared to February.

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



Figure 2. 4: Trend of subsistence foodstuff production participation rate

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

#### 2.5 Labour underutilization rates

Labour underutilization consists of three components: Unemployment, Time-related underemployment and Potential labour force. The survey results provide four indicators of labour underutilization: the unemployment rate (LU1); the combined rate of unemployment and time-related underemployment (LU2); the combined rate of unemployment and potential labour force (LU3); and the composite measure of labour underutilization (LU4), defined as the ratio of the sum of people in time-related underemployment, in unemployment and in potential labour force to the extended labour force defined as the sum of labour force and potential labour force.

The results shown in figure 2.5 reveal that the trend of LU2 and LU4 are slightly decreasing overtime. The unemployment rate(LU1) has increased by 0.5 percentage points in May 2019 (Q2) from February 2019(Q1), while LU3 remained stable around 39 percent in February and May 2019.



Figure 2. 5: Trend of the labour underutilization rate

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

#### **Chapter 3: Labour Force Participation**

#### 3.1 Labour force participation and sex

The labour force participation rate was 53.8 percent in May 2019(Q2) and was stable in the last two years. It was higher for the male population (63.2 percent) than the female population (45.3 percent). The quarter-to-quarter comparison shows that the labour force participation rate has increased by 1.3 percentage points. The increase among males (1.3 percentages points) is slightly higher than the increase among females (1.1 percentage points)





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

#### 3.2 Labour force participation and education

The analysis of the labour force participation rate (LFPR) by educational attainment of individuals shows that labour force participation rate was higher among those with relatively higher levels of education compared to those with lower levels of education. May 2019 (Q2) to February 2019(Q1) comparison reveals an increase in LFPR for all level of education except for lower secondary where it remained unchanged. A significant increase happened among university graduates for which the labour force participation rate increased by 5 percentage points from 85.2 percent to 90.2 percent. Low rates of labour force participation rate among people with lower secondary education (36.9 percent in May 2019(Q2)) may be attributed to the fact that some of them were still enrolled in schools. The analysis of labour force participation rate after the exclusion of those who were enrolled in schools shows that the LFPR among lower secondary school holders become 67.3 percent and leads to the conclusion that the LFPR increases as the level of education increases.



Figure 3. 2: Labour force participation rate by level of education

#### 3.3 Labour force participation by age group

The labour force participation rate among people in the core age group (31 to 54 years old) was higher than the overall labour force participation rate (66.2 percent compared to 53.8 percent at the national level). In May 2019(Q2), the labour force participation rate among youth 16-30 years old was 51.1 percent; 2.7 percentage points lower than the national average and 0.7-percentage point higher than the February 2019's rate. Among the population aged 31-54 years old, labour force participation rate has slightly increased by 1.4 percentage points in May 2019(Q2) from 64.8 percent in February 2019 (Q1). However, labour force participation rate among population aged 55 years and above, has remained more or less stable.



Figure 3. 3: Labour force participation rate by age group

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

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

#### 3.4 Labour force participation and area of residence

The analysis of labour force participation rate by area of residence (urban/rural) shows that it was higher in urban areas as compared to rural areas. This may be attributed to the diversity of job opportunities in urban areas as compared to rural areas where the number of employment opportunities is limited and most people are involved in subsistence agriculture. The May 2019(Q2) to February 2019(Q1) comparison shows that the labour force participation rate remained almost stable in urban areas while it has increased by 1.2 percentage points in rural areas.



Figure 3. 4: Labour force participation rate by area of residence

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

#### **Chapter 4: Employment**

#### 4.1 Employment to population ratio

The analysis of employment trends reveals that the number of employed persons has generally increased overtime, from about 3,093,000 in February 2018 to about 3,186,000 in February 2019(Q1) and to around 3,259,000 in May 2019 (Q2). The employment-to-population ratio (EPR), 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.

Figure 4.1 presents the employment-to-population ratio by area of residence. It may be observed that it has slightly increased in May 2019 (Q2) as compared to February 2019 (Q1) and February 2018 at the national level as well as in both urban and rural areas. According to the results, between February 2019 (Q1), and May 2019 (Q2), the employment-to-population ratio slightly increased by 0.8 percentage points at national level, 0.6 percentage points in rural areas, and 0.4 percentage points in urban areas.

It may also be observed that the employment-to-population ratio was higher in urban areas when compared to rural areas in all rounds of labour force survey. The gap between the employment-to-population ratio in urban and rural areas remained significant in May 2019 (Q2) (12.6 percentage points).



Figure 4. 1: Employment to population ratio by area of residence.

Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

Figure 4.2 shows the trend in the employment-to-population ratio for the male and female populations separately. It is instructive to note that there is a high gap between the employment-to-population ratio of males and females, and the gap is slightly increasing overtime. While in February 2019 (Q1), the male employment-to-population ratio was 53.3 percent, the female rate was 37.4 percent, representing a gap of 15.9 percentage points. In May 2019 (Q2), the male employment-to-population ratio increased to 54.9 percent, and the female rate remained essentially unchanged at 37.5 percent. Thus, the male and female gap increased to 17.4 percentage points in May 2019 (Q2), compared to 15.9 percentage points in February 2019 (Q1).





Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

#### 4.2 Status in employment

Table 4.1 below reveals that employed population increased by about 73,000 persons from February 2019 (Q1) to May 2019 (Q2), corresponding to an increase of about 2.3 percent. It is observed that the category of employees and paid apprentices/interns recorded the highest share of employment across all rounds of the labour force survey followed by own-account workers, contributing family workers, employers, and member of cooperatives respectively.

Status in annlaument	Employed persons					
Status in employment	Feb-18	Aug-18	Feb-19(Q1)	May-19(Q2)		
Total(count)	3,093,074	3,321,598	3,186,051	3,258,935		
Total (percent)	100	100	100	100		
Employee and paid apprentice/intern	70.6	66.8	66.6	67.5		
Employer	1.1	1.6	1.1	1.1		
Own-account worker	24.1	27.2	27.8	27.9		
Member of cooperative	0.1	0.2	0.6	0.2		
Contributing family worker	4.1	4.3	3.9	3.3		

Table 4. 1: Percentage distribution of employed population by status in employment

Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

Figure 4.3 shows the shares of employed persons according to the status of employment. It reveals that the share of employees has declined from 70.6 percent in February 2018 to 66.6 percent in February 2019 (Q1) but has increased by around 1 percentage point in May 2019 (Q2). The share of own-account workers remained stable (around 28 percent) in February and May 2019 while it had increased from 24.1 percent to 27.8 percent between February 2018 and February 2019. The figure also reveals that other categories (employers, members of cooperatives, and contributing family workers) have not shown a significant change.



Figure 4. 3: Distribution of employed population by status in employment

Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

#### 4.3 Main occupation

The distribution of employed persons by occupational category over the five consecutive rounds of the Labour Force Survey, showed that Elementary Occupations registered a highest share followed by Service and Sales Workers, and Craft and Related Trades Workers among others. A comparison between February 2019 (Q1) and May 2019 (Q2) indicates a decrease of 1.6 percentage points in Elementary Occupations, while Service and Sales Workers registered an increase of 0.6 percentage point.

	Employed person						
Major Occupation Group	Feb-18	Aug-18	Feb-19 (Q1)	May-19 (Q1)			
Total employed	3,093,074	3,321,598	3,186,051	3,258,935			
Total (percent)	100	100	100	100			
Legislators, Managers and Senior Officials	1.2	1.5	1.2	1.3			
Professionals	6.3	6.3	5.7	6.4			
Technicians and Associate Professionals	1.1	1.6	1.4	1.4			
Clerical Support Workers	1.0	0.9	0.9	1.2			
Service and Sales Workers	17.9	19.9	18.9	19.5			
Skilled Agricultural, Forestry and Fishery Workers	6.7	7.5	7.5	7.2			
Craft and Related Trades Workers	7.5	9.1	8.2	8.4			
Plant and Machine Operators and Assemblers	2.8	3.0	2.9	2.9			
Elementary Occupations	55.6	50.3	53.3	51.7			

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Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

#### 4.4 Main Economic activity

According to the results presented in Table 4.3 below, the bulk of employed persons were engaged in Agriculture, forestry and fishing (38.0 percent) in May 2019 (Q1). Other sectors that employed a substantial number of persons were wholesale and retail trade; repair of motor vehicles and motorcycles (14.4 percent), Construction (9.1 percent), Activities of households as employers (7.0 percent), Manufacturing (5.9 percent), transportation and storage (5.4 percent), Education (3.5 percent), Accommodation and food service activities (3.2 percent).

A comparison between February 2019 (Q1) and May 2019 (Q2) shows that only three economic activities had shown a change of at least 1 percentage point. These are Agriculture, forestry and fishing with a decline of 1.8 percentage points; Mining and quarrying which recorded a decrease of 1.2 percentage points; and activity of household as employers, which showed an increase of 1.1 percentage points. Accommodation and food service activities sector has also increased in employment by 0.8 percentage point.

	Employed Persons						
Economic activities	Aug-17	Feb-18	Aug-18	Feb-19 (Q1)	May-19 (Q2)		
Total employed	2,959,965	3,093,074	3,321,598	3,186,051	3,258,935		
Total (Percent)	100	100	100	100	100		
Agriculture forestry and fishing	37.8	42.7	36.4	39.8	38.0		
Mining and quarrying	1.9	1.8	2.1	3.1	1.9		
Manufacturing	6.1	6.1	6.6	6.4	5.9		
Electricity gas stream and air conditioning supply	0.3	0.3	0.1	0.2	0.3		
Water supply, gas and remediation services	0.4	0.3	0.2	0.2	0.3		
Construction	10.3	9.1	10.9	9.2	9.1		
Whole sale and retail trade; repair of motor vehicles and motorcycles	16.5	14.4	15.4	14.4	14.4		
Transportation and storage	4.0	3.8	5.0	4.9	5.4		
Accommodation and food service activities	1.6	1.8	2.5	2.4	3.2		
Information and communication	0.5	0.5	0.4	0.2	0.4		
Financial and insurance activities	0.7	0.8	1.0	1.2	1.0		
Real estate activities	0.1	0.1	0.1	0.1	0.2		
Professional, scientific and technical activities	0.9	0.6	0.9	0.6	1.0		
Administrative and support activities	1.0	1.6	1.6	1.7	2.0		
Public administration and defence; compulsory social security	2.4	1.7	2.0	1.8	2.2		
Education	3.9	3.5	3.2	3.4	3.5		
Human health and social work activities	1.8	1.5	1.5	1.4	1.4		
Arts, entertainment and recreation	0.5	0.3	0.3	0.3	0.5		
Other services	2.1	1.9	2.3	2.5	1.7		
Activities of households as employers	6.8	6.8	6.8	5.9	7.0		
Activities of extraterritorial organizations and bodies Source: National institute of Statistics	0.6	0.6	0.5	0.4	0.7		

Table 4. 3: Percentage distribution of employed population by branch of economic activity.

Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

#### **Chapter 5: Unemployment and Labour Underutilization**

Unemployment is a particular form of labour underutilization. It reflects the pressure on the labour market. 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 limit their active job search or their availability for employment.

#### 5.1 Unemployment rate

The unemployment rate is defined as the ratio of the number of unemployed persons to the labour force. It 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 Labour Force Survey results of the May 2019 (Q2), the unemployment rate in Rwanda was 15.0 percent compared to 14.5 percent in February 2019(Q2), 16.0 percent in February 2018 and 16.7 percent in February 2017. The unemployment rate has declined by 0.7 percentage point among males and increased by 2.3 percentage points among females between February 2019 (Q1) and May 2019(Q2). The analysis of the unemployment rate dynamics for males and females between February 2018 and May 2019(Q2) reveals a significant decline of unemployment rate among males (1.8 percentage points) and a relatively stable rate among females.



Figure 5. 1: Unemployment rate by sex.

Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

Also, the February 2019(Q1) to May 2019(Q2) comparison shows that the unemployment rate was higher in Urban compared to rural areas of Rwanda (15.3 percent and 14.9 percent) respectively but has shown declining trend in Urban areas and an increasing trend in Rural areas as compared to the previous round (February 2019(Q1)).





Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

Figure 5.3 shows the trend in the unemployment rate among youth and adults population. In Rwanda, the youth population is defined as persons with 16 to 30 years of age. The results show that the unemployment rate among the youth has been relatively higher than the unemployment rate among adults. The youth (16-30 years) unemployment rate declined from 19.6 percent in February 2019(Q1) to 18.2 percent in May 2019 (Q2) while the unemployment rate for adults (31+ years) has significantly increased from 10.9 percent to 12.5 percent during the same period.



Figure 5. 3: Unemployment rate among youth and Adult

Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

The comparison from February 2019 (Q1) to May2019 (Q2) showed a decline of the unemployment rate by 2.9 percentage points among young age (16-24 years) and by 0.9 percentage point among adults (age 45+) as presented in figure 5.4 below. On the other hand, the unemployment rate significantly increased by 2.4 percentage points among the age group 24-44 years old.



Figure 5. 4: Unemployment rate by selected age groups

Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

#### 5.2 Youth Not in Employment, Education or Training (NEET)

Participation in employment, education or training is important for youth in their transition to the labour market and achieves self-sufficiency. In this report, two age groups (16 to 24 years old) and (16 to 30 years old) are separately used in presenting the results in table 5.1. The full count of young in the age group 16 to 24 years old, who were neither in employment nor in education or training, was 665,917 persons while for those aged between 16 and 30 years old, the count was 1,056,194 persons in May 2019 (Q2).

The share of young (16 to 24 years old) neither in employment nor in education or training (NEET) stood at 30.8 percent in May 2019(Q2), representing a significant decline compared to February 2019(Q1) (33.3 percent). The February 2019 (Q1) and May 2019 (Q2) rounds comparison showed that, the decline of the NEET rate was essentially among youth living in both rural and urban areas where it changed from 36.9 percent in February 2019(Q1) to 35.8 percent in May 2019 (Q2) and from 25.5 percent to 23.5 percent respectively.

Age group	sex		Percentage point change				
		Aug-17	Feb-18	Aug-18	Feb-19(Q1)	May-19(Q2)	Feb-19 to May-19
	Total	31.9	32	29.5	33.3	30.8	(2.6)
16.24	Male	25.5	25.3	23	26.8	26.4	(0.4)
16-24 yrs	Female	38	38.1	35.6	39.7	34.9	(4.8)
	Urban	20.4	23.8	20.6	23.6	22.0	(1.6)
	Rural	35.8	34.5	32.5	35.8	33.4	(2.5)
	Total	34.6	33.7	31.7	34.4	32.8	(1.6)
	Male	25.6	25	22.8	26.1	26.0	(0.1)
16-30yrs	Female	42.9	41.8	39.9	42	39.0	(3.0)
10 00913	Temate	12.7	11.0	57.7	12	33.0	(3.0)
	Urban	23.5	24.9	22.4	25.5	23.5	(2.0)
	Rural	38.6	36.6	35	36.9	35.8	(1.1)

Table 5. 1: Share of youth Not in Employment, Education or Training (NEET) by sex and area of residence

Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

The share of youth persons (16-30 years old) neither in employment nor in education or training was 32.8 percent in May 2019 (Q2), has shown a considerable decline as compared to the previous Quarter of the survey where it stood at 34.4 percent. The results also showed that youth NEET rate was higher among females than males and higher in rural areas compared to urban areas.

Figure 5. 5: Trends in share of youth (16-30 years) not in employment nor in education or training (NEET) by sex and area of residence



Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

#### 5.3. Labour Underutilization

Labour underutilization includes unemployment, 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. Potential labour force is defined as all persons of working age outside the labour force who, during the reference period, were neither in employment nor in unemployment but who were considered as either (a) *unavailable jobseekers* (seeking employment but not currently available) or (b) *available potential jobseekers* (currently available for employment but did not carry out activities to seek employment).

Figure 5.6 shows that the composite measure of labour underutilization rate stood at 55.0 percent in May 2019 (Q2), declined from 56.8 percent in February 2019(Q1). The labour underutilization rate was higher among females than males. The February 2019(Q1) and May 2019 (Q2) comparison shows that the labour underutilization rate decreased by 2.1 percentage points among males and by 1.3 among females.



Figure 5. 6: Labour under-utilization rate by sex

Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

The results showed also that the labour under-utilization rate (LU4) was higher among people living in rural areas than those living in urban areas. The comparison of February 2019(Q1) and May 2019(Q2) revealed that the labour underutilization rate (LU4) decreased by 3.7 percentage points in urban areas and by 0.7 percentage points in rural areas. The February 2019 (Q1)-to-May 2019 (Q2) comparison shows that the underutilization rate has a declining trend in both urban and rural areas.



Figure 5. 7: Labour under-utilization rate by area of residence

Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

Figure 5.8 presents the labour underutilization rate by age group. It is observed that the labour underutilization rate has declined among both youth (16-30 years old) and adult population (31 years and above) between February 2019 (Q1) and May 2019(Q2).



Figure 5.8: Trend in labour underutilization rate by Youth and Adult

Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

Generally, the labour under utilisation rate decreased from February 2019 (Q1) to May 2019 (Q2) among all selected group of ages. The results presented on the figure 5.9 show that the labour underutilization rate declined by 2.2 percentage points among people aged 16-24 years from February 2019 (Q1) to May 2019(Q2), by 1.2 percentage point and 2.6 percentage points for those aged 25-44 years and 45+years respectively, over the same period.




Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

## **Chapter 6: Population Outside the Labour Force**

The population outside the labour force constitutes a large part of the working age population. It includes persons engaged exclusively in activities for producing goods or services such as subsistence production of goods, own use production of services, volunteer production of goods or services and unpaid trainee or apprentice work, who have not carried out any activity for pay or profit during the reference period. It also includes students who are enrolled in schools, persons who currently do not seek for employment opportunities (not job seeker) such as discouraged job seekers. 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 larger than the size of the labour force itself.

The population outside labour force was 3,224,000 in February 2018 and increased to 3,373,000 in February 2019 (Q1) and declined to 3,298,000 in May 2019(Q2), representing a decrease of 2.2 percent.

### 6.1: Main components of people outside the labour Force

The population outside labour force can be divided into three important components, namely, students, persons involved in subsistence agriculture and other outside labour force including largely people who are available to work but do not do anything to search for a job, retired persons, people unable to work because of illness or disability.

Table 6.1 presents the main components of persons outside labour force. The comparison made between the results of February 2019 (Q1) and May 2019 (Q2) shows a change of 2.2 percent of the working age population outside labour force. The proportion of population outside labour force who are exclusively students slightly increased to 20.6 percent in May 2019(Q2) from 20.0 percent in February 2019(Q1). There has been a decline of 4.9 percentage points among persons exclusively involved in subsistence agriculture (from 53.1 to 48.2 percent) and an increase of 4.3 percentage points among other person outside labour force (from 26.9 to 31.2 percent) in the same period.

		% Change			
Main components	Feb_17	Feb_18	Feb-19 (Q1)	May-19 (Q1)	Feb-19(Q1) to May-19 (Q2)
Count(,000)	3,084	3,224	3,373	3,298	2.2
Total	100	100	100	100	
Exclusively student	20.7	19.8	20.0	20.6	0.6
Exclusively in subsistence agriculture	55.5	51.3	53.1	48.2	-4.9
Other outside LFS	23.9	28.9	26.9	31.2	4.3

Table 6. 1: Main components of Persons outside the labour force

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

# 6.2 Population outside the labour force by area of residence

It is observed from Figure 6.1 that the proportion of persons outside labour force among the working age population was higher in rural areas in relative to urban areas, and the urban-rural gap showed a decreasing trend from February 2019 (Q1) to May 2019 (Q2)

The comparison between February 2019 (Q1) and May 2019 (Q2) showed that the proportion of persons outside labour force slightly declined from 47.5 percent to 46.3 percent at the national level and has relatively remained the same in urban areas compared to rural areas where a decline of 1.2 percentage points was observed in the same period.



Figure 6. 1: Population outside the Labour force by Area of residence

Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

## 6.3 Population outside the labour force by age group

Figure 6.2 shows that the proportion of persons outside labour force among the working age population was higher among youth than among adults in May 2019(Q2).

The comparison between February 2019 (Q1) and May 2019(Q2) showed that this proportion decreased from 49.6 percent to 48.9 percent among youth(16-30 years old) and from 45.8 percent to 44.1 percent among adults (31 years and above).



Figure 6. 2: Population outside the Labour force by Age category

Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

### 6.4 Population outside the labour force by level of educational attainment

The survey results reveal that the share of persons outside the labour force in the working age population was lower among people with high educational attainment as compared to persons with lower education levels. The high rates among people with lower secondary education may be due to the fact that many of them were still enrolled in schools. The proportion of people outside the labour force in the working age population computed for those who were not enrolled in schools substantially decreased among persons with primary, upper secondary school, and university levels as compared to other levels of education. It has remains relatively stable among those with no level of education and among those with lower secondary level in comparison with the previous round.



Figure 6. 3: Population outside the Labour force by Education level attained

Source: National institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS)

### **Chapter 7: Work in agriculture**

Due to the importance of the agriculture sector in the economy of Rwanda, 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 occupation into two parts: market oriented and non-market oriented. Workers in the former part 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 whole.

### 7.1 Agricultural status of workers

Workers engaged in the agriculture sector may be subdivided into four parts: (a) those who were engaged in market oriented agriculture as main job, working for pay or self-employed; (b) those who were exclusively engaged in subsistence agriculture; (c) those who had the main job outside agriculture but performed foodstuff production activities for own use; and finally, (d) those who were involved in market oriented agriculture as their secondary job.

The full count of workers in the agriculture sector, as presented in table 7.1 below has been declining from February 2017 where it was at 60.2 percent of the working age population involved in agriculture activity, to 58.1 percent in February 2018, to 56 percent in February 2019(Q1) and to 51.2 percent in May 2019(Q2).

Workers engaged exclusively in subsistence agriculture constitute the majority of agricultural workers, followed by those engaged in market-oriented agriculture as their main job in all rounds of the LFS

The proportion of agricultural persons in market-oriented agriculture has slightly increased (by 1.5 percentage points) from February 2019(Q1) to May 2019 (Q2). The proportion of agricultural workers exclusively in subsistence agriculture has also decreased by 1-percentage points during that period.

		Feb	Feb- 19	May_1
Categories of agriculture	Feb-17	18	(Q1)	9 (Q1)
Market oriented agriculture as main job (a)	34.3	32.7	32	33.5
Subsistence agriculture exclusively (b)	52.8	53.1	52.8	51.8
Participated in Subsistence agriculture but have nonagriculture main job (c)	12.2	13.8	14.6	14.0
Market oriented agriculture as secondary job (d)	0.7	0.4	0.6	0.7
Total (100%)	100	100	100	100
Count ('000s)	4,038	4,014	3,978	3,650
Proportion of working age population	60.2	58.1	56	51.2

Table 7. 1: Works status in agriculture

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

#### 7.2 Characteristics of agricultural workers

The focus of the following section is on the two first categories of table 7.1 (Workers in market oriented agricultural in main job and those involved exclusively in subsistence agriculture).

The bulk of agricultural workers were involved in subsistence agriculture. The survey results show that market oriented agriculture was predominant among males as opposed to females. On the other hand, the number of people involved exclusively in the subsistence agriculture was higher among females than males.

The labour force surveys conducted in February 2019(Q1) to May 2019 (Q2) show a slight declining trend of the share of persons involved in market-oriented agriculture at national level and among both females and males.

Estimates						Change
Sex		Feb-17	18-Feb	Feb-19(Q1)	May_ 19 (Q2)	Feb-19( Q1) to
	Total	100	100	100	100	May 2019(Q2)
	Market oriented agriculture	39.4	38.2	37.6	39.6	2
Both	Subsistence agriculture	60.6	61.8	62.4	60.4	2
	Total	100	100	100	100	
	Market oriented agriculture	44.8	45	45	47.2	2.2
Male	Subsistence agriculture	55.2	55	55	52.8	-2.2
	Total	100	100	100	100	0
	Market oriented agriculture	35.8	34	33	34.7	1.7
Female	Subsistence agriculture	64.2	66	67	65.3	-1.7

Table 7. 2: Trend of proportion of agricultural workers by sex

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

Table 7.3 presents the trend of the share of market oriented and subsistence agricultural workers among young persons and adults, separately. The level of participation of the agricultural young population in subsistence agriculture was 4.3 percentage point lower than the one of the agricultural adult population in May 2019 while that gap was 2.4 percentage points in February 2019.

Estimates						Change
Age group		Feb-17	Feb-18	Feb- 19(Q1)	May- 19(Q2)	Feb_ 19(Q1) to May- 19(Q2)
	Total	100	100	100	100	
Both	Market oriented agriculture	39.4	38.2	37.4	39.6	2.2
	Subsistence agriculture	60.6	61.8	62.6	60.4	-2.2
	Total	100	100	100	100	
Young(16- 30)	Market oriented agriculture	39.2	39.9	39	42.5	3.5
50)	Subsistence agriculture	60.8	60.1	61	57.5	-3.5
	Total	100	100	100	100	
Adults(31+)	Market oriented agriculture	39.5	37.4	36.6	38.2	1.6
	Subsistence agriculture	60.5	62.6	63.4	61.8	-1.6

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- Lable 7. 3: Frend of br	опогной огаенсинита	workers by age group
rable / of frend of pr	opor non or agricultura	morners by age group

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

The distribution of agricultural workers by education attainment, presented in table 7.4, shows that the higher the level of educational attainment, the lower the likelihood of participation in agricultural activities for both market-oriented agriculture and subsistence agriculture.

		L		Change		
Level of educational attainment		Feb-17	18-Feb	Feb-19(Q1)	May-19(Q2)	Feb_19(Q1) to May-19(Q2)
	Total	100	100	100		
	None	63.8	64.4	62.3	64.5	2.2
	Primary	29.1	29.1	30.8	29.7	-0.9
	Lower secondary	3.9	3.3	3.6	3.1	-0.5
	Upper secondary	2.8	2.9	3	2.4	-0.6
Total	University	0.4	0.3	0.3	0.3	0.0
	Total	100	100	100		
	None	69.8	70.2	69.2	68.1	-1.1
	Primary	25.5	25.9	25.5	28.3	3.2
Market	Lower secondary	2.3	2.1	2.5	1.7	-0.8
oriented	Upper secondary	1.9	1.5	2.4	1.5	-0.9
agriculture	University	0.5	0.3	0.4	0.4	0.0
	Total	100	100	100	100	
	None	59.9	60.8	58.1	62.1	4
	Primary	31.4	31.1	34	30.7	-3.3
	Lower secondary	4.9	3.9	4.3	4.0	-0.2
Subsistence	Upper secondary	3.4	3.8	3.4	3.0	-0.4
agriculture	University	0.4	0.3	0.2	0.3	0.1

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

### 7.5 Share of agriculture in the total work force

The proportion of agricultural workers in the total work force can be defined as the sum of total employment (Paid/Profit or cash oriented) and the number of workers engaged in subsistence agriculture.

The results show a decline in the share of workers in agriculture at national level and among almost all selected demographic characteristics. The share of agricultural workers in total workforce decreased by 3.2 percentage points from 64 percent in February 2019(Q1) to 60.8 percent in May 2019 (Q2). It decreased by 3 percentage points among males (from 52 to 49 percent) and by 2 percentage points among females (from 74 to 72 percent) in the same period.



Figure 7. 1: Share of workers in agriculture by sex and education attained

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

The share of agriculture workers in total workforce is strongly inversely correlated with the level of education attainment. Persons with lower level of educational attainment are more likely to join agricultural work as compared to others with higher level of education.

The results of LFSs rounds conducted from February 2017 to May 2019 revealed a declining trend of the share of agriculture workers in total workforce for almost all levels of educational attainment (Figure 7. 2 below).



Figure 7. 2: Share of workers in agriculture by level of education attained

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

#### Appendix A: Survey Methodology and Data quality

The current quarterly labour force survey is designed according to a two-stage stratified design with a rotation scheme. At the first stage of sampling, a stratified sample of 288 census enumeration areas, called primary sampling units (PSUs), is drawn from the 2012 census sample frame with probabilities proportional to size (pps) measured in terms of number of households according to the latest census of population.

The strata are composed of the 30 administrative districts of the country, sub-divided into urban and rural areas. At the second stage of sampling; 16 households were selected in three quarter of the PSUs and 24 households<sup>2</sup> were selected in a quarter of PSUs, with equal probabilities after a fresh listing of the households in the new sample PSUs. Thereafter, all household members in the sample are then selected for survey interview.

The sample size in the current quarter is about 5376 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 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  $\eta$  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.

$$p(hh_k) = \frac{16 \text{ or } 24}{N_k^1}$$

Where 16 or 24 is the fixed sample-take in enumeration area k and  $N_k$  is the listed or estimated number of households in the enumeration area k.

The designed sampling weights for the quarterly Labour Force Survey are labelled "Qweight". They are calculated as a function of the weights calculated earlier for the bi-annual survey, called here "Oldweight". The Qweight is obtained from the Oldweight as follows:

 $<sup>^2</sup>$  The intake of 24 households in one fourth of PSUs is a consequence of sample size adjustment caused by the transition from bi-annual sample design to quarterly sample design in August 2018.

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

The old design calculated as,

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

The overall weight of the quarterly LFS, dk, is calculated as

Qweight = 
$$d_x = \frac{1}{p_k} + \frac{1}{p^{(hh_k)}} x \frac{219}{96}$$

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

$$AdjastedWeight(hh_k) = d_k = \frac{d_k}{r_k}$$

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

Finally, the adjusted weights were calibrated to known population projections for four demographic groups: Males and females under 16 years old, and males and females aged 16 years old and above

The population projections were derived from the NISR census publication.<sup>3</sup> 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.<sup>4</sup> Accordingly, the final calibrated weights were obtained from the formula,

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

#### • Data quality

Like in all sample surveys, the results of the LFS May 2019(Q2) are subject to sampling and different forms of measurement errors. This section provides information on sampling errors.

#### • Sampling errors

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

The following table gives the sampling errors of the main labour force estimates obtained from the LFS May 2019(Q2). They have calculated based on the general principle that in multi-stage

<sup>&</sup>lt;sup>3</sup> National Institute of Statistics of Rwanda, *Fourth Population and Housing Census, Rwanda, 2012, Thematic Report Population Projections*, January 2014.

<sup>&</sup>lt;sup>4</sup> Deville, J.C., and Sarndäl, C.E., "Calibration Estimators in Survey Sampling," *Journal of the American Statistical Association*, Vol. 87, 1992, pp. 376-382.

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<sup>5</sup>. 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.

			Relative	<b>Confidence interva</b>	
		Standard	Standard		
Indicator	Estimate	error	error	Lower	Upper
Pop16+	7,130,333	213,450	3.0%	6,703,433	7,557,233
Employment	3,258,935	118,011	3.6%	3,022,913	3,494,957
Unemployment	573,837	30,292	5.3%	513,253	634,421
Labour force	3,832,772	132,372	3.5%	3,568,028	4,097,516
Outside labour force	3,297,561	110,958	3.4%	3,075,645	3,519,477

A.1: Sampling errors of estimates of main Labour force aggregates

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS), May 2019(Q2)

As an illustration of the use of the table, consider the second row of the table on the labour force. The total labour force is 3,258,935 estimated with a relative standard error of 3.4 percent. The true value at 95 percent confidence level lies within the interval 3,022,913 and 3,494,957.

The next table (A2) 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 15.0 percent has a standard error of 0.7 percentage points. This may be interpreted to mean that the true unemployment rate lies with 95 percent confidence within the interval, 13.7 to 16.3 percent.

#### A.2: Sampling errors of estimates of main labour force indicators

			Confidence interval	
Indicator	Estimate	Standard error	Lower	Upper
Labour Force Participation Rate	53.8%	0.8%	52.1%	55.4%
Employment-Population Ratio	45.7%	0.8%	44.1%	47.3%
Unemployment rate	15.0%	0.7%	13.7%	16.3%

Source: National Institute of Statistics of Rwanda (NISR), Labour Force Survey (LFS), May 2019(Q2)

<sup>&</sup>lt;sup>5</sup> Verma, Vijay, *Sampling Methods*, Manual for Statistical Trainers Number 2, Statistical Institute for Asia and the Pacific (SIAP), Tokyo, Revised 2002.

Appendix B: Statistical Tables

# Table B. 1: Summary labour force indicators, May-19 (Q2)

		Se	ex	Residen	tial area		
	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Population 16 years old and over	7,130,333	3,352,106	3,778,228	1,455,869	5,674,464	3,088,245	4,042,088
Labour force	3,832,772	2,119,959	1,712,814	957,476	2,875,296	1,498,398	2,334,374
- Employed	3,258,935	1,841,888	1,417,047	810,665	2,448,270	1,197,469	2,061,466
- Unemployed	573,837	278,071	295,767	146,811	427,026	300,929	272,908
Outside labour force	3,297,561	1,232,147	2,065,414	498,393	2,799,168	1,589,847	1,707,714
Labour underutilization	2,934,394	1,235,153	1,699,242	423,329	2,511,064	1,792,164	1,142,229
- Unemployed	573,837	278,071	295,767	146,811	427,026	300,929	272,908
- Time-related underemployed	862,845	429,687	433,158	77,563	785,282	492,646	370,199
- Potential labour force	1,497,712	527,395	970,317	198,955	1,298,756	998,589	499,122
Labour force participation rate (%)	53.8	63.2	45.3	65.8	50.7	48.5	57.8
Employment-to-population ratio (%)	45.7	54.9	37.5	55.7	43.1	38.8	51.0
Time related underemployment rate (%)	26.5	23.3	30.6	9.6	32.1	41.1	18.0
LU1 - Unemployment rate (%)	15.0	13.1	17.3	15.3	14.9	20.1	11.7
LU2 - Combined rate of unemployment and time-related underemployment (%)	37.5	33.4	42.6	23.4	42.2	53.0	27.5
LU3 - Combined rate of unemployment and potential labour force (%)	38.9	30.4	47.2	29.9	41.3	52.0	27.2
LU4 - Composite measure of labour underutilization (%)	55.0	46.7	63.3	36.6	60.2	71.8	40.3
Youth unemployment rate (16-30 yrs) (%)	18.2	15.8	20.9	18.0	18.2	25.3	14.8
Median monthly earnings at main job	20,800	26,000	18,200	52,000	19,340	18,200	30,000

	Total	Sex	
		Male	Female
Population	12,107,983	5,844,405	6,263,579
0-4 yrs	1,601,076	801,859	799,216
5-9 yrs	1,524,247	759,504	764,742
10-14 yrs	1,570,234	794,185	776,049
15-19 yrs	1,434,470	704,130	730,340
20-24 yrs	1,012,917	487,853	525,064
25-29 yrs	885,669	406,795	478,874
30-34 yrs	862,920	425,597	437,323
35- 39 yrs	774,282	364,570	409,712
40-44 yrs	574,195	281,069	293,126
45-49 yrs	430,380	201,962	228,419
50-54 yrs	338,394	154,571	183,823
55-59 yrs	322,701	138,797	183,904
60-64 yrs	280,906	131,491	149,415
65-69 yrs	188,403	70,180	118,223
70-74 yrs	128,684	47,378	81,306
75+	178,505	74,462	104,043

Table B. 2: Population by sex, age group and urban/rural area, May-19 (Q2)

Table B. 3: Households by household size, sex of head of household, May-19 (Q2)

Household size	Total number	Head of household		Participated in	Not participated in
Household size	households	Male	Female	subsistence agriculture	subsistence agriculture
	2,805,979	2,077,161	728,817	1,320,161	1,485,818
1	265,479	157,614	107,865	75,738	189,741
2	345,584	175,674	169,909	145,087	200,497
3	454,189	297,179	157,010	211,284	242,905
4	491,032	374,942	116,090	230,199	260,833
5	461,201	370,110	91,091	248,128	213,073
6	365,292	321,103	44,190	194,098	171,194
7	214,201	188,175	26,026	113,776	100,425
8	122,746	110,740	12,006	57,574	65,172
9	47,221	45,287	1,935	25,389	21,832
10+	39,033	36,338	2,695	18,888	20,145

Table B. 4: Population 16 years old and over by labour force status, sex, age group, and urban/rural area, May-19 (Q2)

			Labour	force status				
	Total	Labour force	Employed	Unemployed	Outside labour force	Labour force participation rate (%)	Employment- population ratio (%)	Unemployment rate (%)
Total Population 16 yrs and over	7,130,333	3,832,772	3,258,935	573,837	3,297,561	53.8	45.7	15.0
16-24 yrs	2,165,293	899,352	731,846	167,506	1,265,941	41.5	33.8	18.6
25-34 yrs	1,748,589	1,232,922	1,026,053	206,869	515,667	70.5	58.7	16.8
35-54 yrs	2,117,252	1,374,346	1,201,206	173,140	742,906	64.9	56.7	12.6
55-64 yrs	603,606	243,460	220,691	22,769	360,146	40.3	36.6	9.4
65+ yrs	495,592	82,690	79,138	3,552	412,902	16.7	16.0	4.3
Male Pop. 16+ yrs	3,352,106	2,119,959	1,841,888	278,071	1,232,147	63.2	54.9	13.1
16-24 yrs	1,055,233	473,046	391,859	81,187	582,187	44.8	37.1	17.2
25-34 yrs	832,393	691,755	595,718	96,037	140,638	83.1	71.6	13.9
35-54 yrs	1,002,172	768,735	683,208	85,527	233,436	76.7	68.2	11.1
55-64 yrs	270,288	140,872	127,386	13,486	129,416	52.1	47.1	9.6
65+ yrs	192,021	45,552	43,718	1,834	146,469	23.7	22.8	4.0
Female Pop. 16+ yrs	3,778,227	1,712,814	1,417,047	295,767	2,065,414	45.3	37.5	17.3
16-24 yrs	1,110,060	426,307	339,988	86,319	683,754	38.4	30.6	20.2
25-34 yrs	916,197	541,167	430,335	110,832	375,029	59.1	47.0	20.5
35-54 yrs	1,115,080	605,611	517,998	87,613	509,469	54.3	46.5	14.5
55-64 yrs	333,319	102,590	93,306	9,284	230,729	30.8	28.0	9.0
65+ yrs	303,572	37,139	35,420	1,719	266,433	12.2	11.7	4.6

	LABOUR FORCE SURVEY, MAY 2019 (Q2)												
			Labour	force status			_						
	Total	Labour force	Employed	Unemployed	Outside labour force	Labour force participation rate (%)	Employment- population ratio (%)	Unemployment rate (%)					
Urban Pop. 16+ yrs	1,455,869	957,476	810,665	146,811	498,393	65.8	55.7	15.3					
16-24 yrs	495,818	234,308	191,211	43,097	261,510	47.3	38.6	18.4					
25-34 yrs	439,210	345,498	286,579	58,919	93,712	78.7	65.2	17.1					
35-54 yrs	388,153	321,102	281,107	39,995	39,995 67,051	82.7	72.4	12.5					
55-64 yrs	83,305	44,432	41,037	3,395	38,874	53.3	49.3	7.6					
65+ yrs	49,382	12,135	10,730	1,405	37,247	24.6	21.7	11.6					
Rural Pop. 16+ yrs	5,674,464	2,875,296	2,448,270	427,026	2,799,168	50.7	43.1	14.9					
16-24 yrs	1,669,475	665,044	540,635	124,409	1,004,432	39.8	32.4	18.7					
25-34 yrs	1,309,379	887,425	739,474	147,951	421,955	67.8	56.5	16.7					
35-54 yrs	1,729,098	1,053,243	920,098	133,145	675,855	60.9	53.2	12.6					
55-64 yrs	520,301	199,029	179,654	19,375	321,272	38.3	34.5	9.7					
65+ yrs	446,211	70,555	68,408	2,147	375,655	15.8	15.3	3.0					

		Se	x	Area of r	esidence			
	Total	Male	Female	Urban Rural		Participated in subsistence agriculture	Not participated in subsistence agriculture	
Total	7,130,333	3,352,106	3,778,227	1,455,869	5,674,464	3,088,246	4,042,087	
None	3,497,945	1,540,751	1,957,194	305,223	3,192,722	1,932,110	1,565,835	
Primary	2,097,296	1,035,973	1,061,323	377,644	1,719,652	936,969	1,160,327	
Lower secondary	595,199	285,792	309,407	215,991	379,207	107,782	487,416	
Upper secondary	623,568	302,354	321,213	329,199	294,369	94,720	528,847	
University	316,325	187,235	129,090	227,812	88,513	16,664	299,662	

Table B. 5: Population 16 years old and over by sex, level of educational attainment and urban/rural area, May-19 (Q2)

Table B. 6: Population 16 years old and over by labour force status, sex, marital status, and urban/rural area, May-19 (Q2)

			Labour fo	orce status					
Marital status	Total	Labour force	Employed	Unemployed	Outside labour force	Labour force participation rate (%)	Employment- population ratio (%)	Unemployment rate (%)	
Population 16 yrs and over	7,130,333	3,832,772	3,258,935	573,837	3,297,561	53.8	45.7	15.0	
Married	2,723,367	1,548,191	1,344,900	203,291	1,175,176	56.8	49.4	13.1	
Living together	1,007,197	703,253	597,381	105,872	303,944	69.8	59.3	15.1	
Divorced/separated	241,600	158,764	139,976	18,788	82,836	65.7	57.9	11.8	
Single	2,657,875	1,271,021	1,039,176	231,845	1,386,854	47.8	39.1	18.2	
Widow/widower	500,294	151,543	137,502	14,041	348,750	30.3	27.5	9.3	

Table B. 7: Employed population by sex, age group, and urban/rural area, May-19 (Q2)

		Se	X	Residen	itial area		Not
	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	participated in subsistence agriculture
<b>Employed population 16+</b>	3,258,935	1,841,888	1,417,047	810,665	2,448,270	1,197,469	2,061,466
16-19 yrs	261,747	138,907	122,840	59,755	201,991	76,662	185,085
20-24 yrs	470,099	252,952	217,148	131,456	338,644	141,162	328,937
25-29 yrs	511,415	283,366	228,049	158,534	352,881	150,338	361,077
30-34 yrs	514,638	312,352	202,286	128,045	386,593	165,786	348,852
35- 39 yrs	457,220	256,893	200,327	100,974	356,245	195,604	261,615
40-44 yrs	340,207	203,442	136,766	88,793	251,415	137,299	202,908
45-49 yrs	242,069	130,693	111,376	54,913	187,156	103,138	138,931
50-54 yrs	161,710	92,180	69,529	36,427	125,283	86,539	75,170
55-59 yrs	125,303	70,895	54,409	25,098	100,206	57,608	67,695
60-64 yrs	95,388	56,491	38,897	15,939	79,449	43,322	52,066
65-69 yrs	51,383	27,735	23,648	8,442	42,942	28,258	23,125
70-74 yrs	18,217	10,919	7,298	1,885	16,332	8,220	9,997
75+	9,538	5,064	4,474	404	9,135	3,531	6,007

# Table B. 8: Employed population by sex, occupation group, and urban/rural area, May-19 (Q2)

		Se	X	Resider	ntial area	Participated	Not
	Total	Male	Female	Urban	Rural	in subsistence agriculture	participated in subsistence agriculture
Occupation group (ISCO High level)	3,258,935	1,841,888	1,417,047	810,665	2,448,270	1,197,469	2,061,466
Managers	41,252	29,815	11,437	33,761	7,492	1,760	39,493
Professionals	206,860	119,793	87,067	110,661	96,199	24,590	182,270
Technicians and associate professionals	46,087	25,580	20,507	28,384	17,703	1,402	44,685
Clerical support workers	40,534	17,160	23,374	27,833	12,701	679	39,856
Service and sales workers	635,182	323,958	311,223	236,234	398,948	201,280	433,902
Skilled agricultural, forestry and fishery workers	235,347	124,116	111,231	15,506	219,841	24,545	210,802
Craft and related trades workers	274,829	201,633	73,196	67,425	207,404	92,251	182,578
Plant and machine operators and assemblers	93,478	92,020	1,458	45,873	47,605	5,604	87,874
Elementary occupations	1,685,366	907,814	777,553	244,989	1,440,378	845,360	840,006

Table B. 9: Employed population by sex, educational attainment, and urban/rural area, May-19 (Q2)

		Se	ex	Resident	tial area		Not	
	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	participated in subsistence agriculture	
Employed population	3,258,935	1,841,888	1,417,047	810,665	2,448,270	1,197,469	2,061,466	
None	1,565,058	845,225	719,833	180,197	1,384,860	758,155	806,902	
Primary	970,344	580,141	390,202	225,458	744,886	357,100	613,244	
Lower secondary	182,791	106,688	76,103	81,054	101,736	32,056	150,735	
Upper secondary	293,579	158,380	135,199	146,440	147,138	38,183	255,396	
University	247,164	151,454	95,710	177,515	69,649	11,976	235,189	

		Se	ex	Reside	ntial area		
	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture
Employed population	3,258,935	1,841,888	1,417,047	810,665	2,448,270	1,197,469	2,061,466
Agriculture, forestry and fishing	1,239,782	577,265	662,517	40,477	1,199,305	688,302	551,480
Mining and quarrying	61,782	56,819	4,963	2,376	59,406	21,205	40,576
Manufacturing	193,024	102,411	90,614	42,042	150,982	74,867	118,157
Electricity, gas, steam and air conditioning supply	10,266	8,745	1,521	6,342	3,924	903	9,363
Water supply, sewerage and waste management	8,957	5,723	3,233	3,990	4,967	2,257	6,700
Construction	295,800	244,338	51,462	51,986	243,814	114,141	181,660
Wholesale, retail trade, repair of motor vehicles, motorcycles	469,466	223,543	245,923	163,710	305,755	146,819	322,646
Transportation and storage	174,965	170,531	4,434	64,979	109,986	36,501	138,463
Accommodation and food service activities	104,768	53,088	51,681	39,684	65,085	28,721	76,048
Information and communication	12,414	9,028	3,385	12,040	374	0	12,414
Financial and insurance activities	31,298	18,742	12,555	25,099	6,199	0	31,298
Real estate activities	6,354	5,902	452	4,841	1,513	1,763	4,591
Professional, scientific and technical activities	30,903	18,770	12,133	22,623	8,280	427	30,476
Administrative and support service activities	66,032	49,172	16,860	33,978	32,054	16,460	49,572
Public administration and defence	70,659	50,940	19,718	44,012	26,646	3,110	67,548
Education	115,229	55,349	59,881	36,587	78,643	23,372	91,857

Table B. 10: Employed population by sex, branch of economic activity, and urban/rural area, May-19 (Q2)

Appendix B .47

LABOUR FORCE SURVEY, MAY 2019 (Q2)											
	_	Se	ex	Reside	ntial area						
	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture				
Human health and social work activities	45,665	21,949	23,716	21,715	23,950	7,788	37,876				
Arts, entertainment and recreation	14,838	8,176	6,662	8,719	6,119	3,563	11,275				
Other service activities	55,000	40,681	14,320	20,787	34,213	13,118	41,883				
Activities of households as employers	227,713	106,499	121,214	149,380	78,333	11,609	216,104				
Activities of extraterritorial organizations and bodies	24,021	14,217	9,804	15,297	8,724	2,542	21,479				

Table B. 11: Educational attainment and field of Education by Labour market status, May-19 (Q2)

Educational attainment	Employed	Unemployed	Outside labour force	Total
Total	45.7	8.0	46	100
None	44.7	7.3	47.9	100
Primary	46.3	7.2	46.6	100
Lower_secondary	30.7	6.2	63.1	100
Upper_secondary	47.1	14.8	38.1	100
University	78.1	12.1	9.8	100
Field of Education				
Total	46.8	8.6	44.5	100
General education	47.1	7.9	45.0	100
Education	70	3.2	27	100
Humanity and art	42.6	13.1	44.3	100
Social Science busine	57.1	15.1	27.7	100
Science	29.6	9.2	61.2	100
Engineering, manufacturing	43.5	15.2	41.3	100
Agriculture	58.0	5.7	36.3	100
Health and welfare	66.9	5.6	27.6	100
Services	26.8	13.0	60.2	100

		Se	ex	Area of I	Residence			
	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture	
Employed population	3,258,935	1,841,888	1,417,047	810,665	2,448,270	1,197,469	2,061,466	
Employee, Paid apprentice/intern	2,200,748	1,257,627	943,121	552,907	1,647,841	895,042	1,305,706	
Employer	36,182	25,926	10,256	21,281	14,901	1,313	34,869	
Own-account worker	907,780	536,597	371,183	219,517	688,263	269,478	638,302	
Member of cooperative	6,631	4,212	2,419	1,869	4,762	2,979	3,652	
Contributing family worker	107,593	17,525	90,068	15,091	92,502	28,657	78,937	

Table B. 12: Employed population by sex, status in employment, and urban/rural area, May-19 (Q2)

Table B. 13: Employed population by sex, hours usually worked per week at all jobs, and urban/rural area, May-19 (Q2)

		Rwanda		Urban			Rural			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Employed population	3,257,655	1,840,806	1,416,848	810,323	457,464	352,859	2,447,332	1,383,342	1,063,990	
less than 24 hours	730,038	331,392	398,646	61,791	30,416	31,374	668,248	300,976	367,272	
25-34 hours	437,152	214,226	222,926	43,549	29,087	14,462	393,603	185,139	208,464	
35-40 hours	662,275	357,385	304,891	100,632	56,350	44,283	561,643	301,035	260,608	
41-48 hours	581,568	353,782	227,786	219,011	119,710	99,301	362,556	234,071	128,485	
49-61 hours	462,967	305,670	157,297	209,309	114,025	95,283	253,658	191,645	62,013	
62-79 hours	298,200	215,099	83,101	133,193	80,243	52,950	165,007	134,856	30,151	
80 hours+	85,455	63,253	22,202	42,838	27,632	15,205	42,617	35,621	6,996	

			Se	X	Area of R	esidence			
	Age Group	Total	Male	Female	Urban	Rural	Participated in subsistence agriculture	Not participated in subsistence agriculture	
Youth Population		3,222,277	1,543,745	1,678,532	791,037	2,431,241	987,594	2,234,683	
(16-30yrs)									
Employed	16-24 yrs	731,846	391,859	339,988	191,211	540,635	217,824	514,022	
	16-30 yrs	1,346,758	734,816	611,942	381,679	965,079	395,616	951,143	
Unemployed	16-24 yrs	167,506	81,187	86,319	43,097	124,409	81,034	86,472	
	16-30 yrs	299,632	137,616	162,015	84,031	215,600	134,125	165,507	
Outside	16-24 yrs	1,265,941	582,187	683,754	261,510	1,004,432	297,775	968,166	
Labour Force	16-30 yrs	1,575,888	671,313	904,575	325,326	1,250,561	457,854	1,118,034	

Table B. 14: Youth Population by sex, and residential area, May-19 (Q2)

Table B. 15: Youth Unemployed by sex, duration of seeking employment, and urban/rural area, May-19 (Q2)

		Rwanda		Urł	ban	Rural		
	Total Male		Female	Male	Female	Male	Female	
Youth Unemployed (16-30 yrs)	283,773	132,577	151,196	39,911	40,364	92,666	110,832	
0 – less than 3 months	129,486	56,757	72,729	10,773	12,962	45,984	59,767	
3 – less than 6 months	57,197	28,732	28,465	7,574	7,021	21,158	21,443	
6 – less than 12 months	34,847	19,383	15,464	8,166	3,845	11,218	11,618	
1 – less than 2 years	31,782	12,715	19,067	6,448	8,791	6,267	10,276	
2 years or more	30,462	14,990	15,472	6,951	7,745	8,039	7,727	

		Rwanda		Urban			Rural	
Youth not in employment nor in	Total	Male	Female	Male	Female	Male	Female	
education (16-30 yrs)	1,056,194	401,170	655,024	70,329	115,775	330,841	539,249	
16-19 yrs	310,768	136,842	173,926	16,501	21,211	120,341	152,715	
20-24 yrs	355,149	141,553	213,597	31,254	40,153	110,299	173,444	
25-30 yrs	390,276	122,775	267,501	22,574	54,410	100,201	213,091	
	1		1					
None	463,767	198,187	265,580	14,926	20,029	183,261	245,551	
Primary	341,899	114,853	227,046	15,107	32,691	99,746	194,355	
Lower secondary	75,489	19,797	55,692	8,214	13,586	11,583	42,106	
Upper secondary	148,001	55,742	92,259	24,092	39,001	31,650	53,258	
University	27,037	12,590	14,447	7,991	10,468	4,600	3,979	

Table B. 16: Youth not in employment and not currently in education or training by sex, age group, and urban/rural area, May-19 (Q2)

Table B. 17: Unemployed population by sex, broad age group and urban/rural area, May-19 (Q2)

		Sex		Area of R	esidence	Participated in subsistence	Not participated in subsistence	
	Total	Male	Female	Urban	Rural	agriculture	agriculture	
Unemployed population 16+	573,837	278,071	295,767	146,811	427,026	300,929	272,908	
16-24 yrs	167,506	81,187	86,319	43,097	124,409	81,034	86,472	
25-34 yrs	206,869	96,037	110,832	58,919	147,951	97,790	109,079	
35-54 yrs	173,140	85,527	87,613	39,995	133,145	102,866	70,274	
55-64 yrs	22,769	13,486	9,284	3,395	19,375	16,663	6,106	
65+ yrs	3,552	1,834	1,719	1,405	2,147	2,577	976	

		Sex		Area of R	esidence	Participated in subsistence	Not participated in subsistence	
	Total	Male	Female	Urban	Rural	agriculture	agriculture	
Unemployed population 16+	573,837	278,071	295,767	146,811	427,026	300,929	272,908	
None	256,268	122,326	133,942	25,990	230,278	172,426	83,842	
Primary	150,174	75,068	75,106	27,588	122,586	87,664	62,510	
Lower secondary	36,663	15,702	20,961	18,849	17,815	9,804	26,859	
Upper secondary	92,585	45,715	46,870	46,999	45,587	27,646	64,939	
University	38,147	19,260	18,887	27,387	10,760	3,390	34,757	

Table B. 18: Unemployed population by sex, level of educational and urban/rural area, May-19 (Q2)

Table B. 19: Unemployed population (who looked for a job) by sex, method of seeking employment, and urban/rural area, May-19 (Q2)

		Sex		Area of Residence		Participated in subsistence	Not participated in subsistence	Number of responses per search
	Total	Male	Female	Urban	Rural	agriculture	agriculture	method
Unemployed population who looked								
for a job	522,684	257,254	265,430	138,432	384,252	267,725	254,959	
Arranging for financial resources,								
applying for permits, licences	73,570	25,700	47,870	17,671	55,899	35,229	38,341	78,444
Looking for land, premises, machinery,								
supplies, farming inputs	3,007	1,539	1,468	1,326	1,681	1,201	1,805	9,721
Seeking the assistance of friends, relatives					·			
or other types of intermediaries	139,168	70,839	68,329	42,147	97,021	75,562	63,606	157,583
Registering with or contacting public or private employment services	25,006	14,596	10,411	11,451	13,555	6,595	18,411	43,048
Applying to employers directly, checking			·		· ·			
at worksites, farms, factory gates, markets	244,169	128,200	115,969	39,168	205,001	143,722	100,447	340,154
Placing or answering newspaper or online								
job advertisements	28,876	12,911	15,965	20,496	8,380	3,211	25,665	69,467
Placing and updating resumes on								
professional or social networking sites online	8,888	3,469	5,419	6,173	2,715	2,203	6,684	48,694

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.

	Total		Total		lesidence	Participated in subsistence agriculture	Not participated in subsistence agriculture
		Male	Female	Urban	Rural		agriculture
<b>Unemployed population 16+</b>	522,684	257,254	265,430	138,432	384,252	267,725	254,959
Less than 3 months	252,186	117,527	134,659	41,957	210,228	159,094	93,091
Less than 6 months	104,404	57,498	46,906	29,781	74,623	48,515	55,889
Less than 12 months	61,109	31,586	29,522	17,717	43,392	25,540	35,568
1 year to less than 2 years	50,920	20,001	30,919	22,850	28,070	11,607	39,313
2 years and above	54,066	30,641	23,424	26,127	27,938	22,968	31,097

Table B. 21: Time related under employment by age group sex and area of residence, May-19 (Q2)

Age group		Se	ence area		
	Total	Total Male Female		Urban	Rural
Total	862845	429687	433158	77563	785282
16-24 yrs	196,797	90,132	106,664	15,986	180,811
25-34 yrs	280,131	138,662	141,469	28,545	251,587
35-54 yrs	322,822	166,927	155,895	27,002	295,820
55-64 yrs	47,604	24,114	23,490	3,526	44,077
65+ yrs	15,492	9,851	5,640	2,504	12,988

### **Appendix C: Survey Personnel**

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