EMPLOYER SKILLS AND OCCUPATIONS SURVEY (ESOS)

BASIC REPORT

P. O BOX 40326 -00100 N.S.S,F BUILDING COMPLEX BISHOP ROAD

NAIROBI

ISBN 978-9914-49-400-6

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Foreword



Accurate human resource data is required to strengthen the management and co-ordination of human resources. The production of human resources has continued to be supply-driven and does not adequately respond to changing employment requirements. This has led to an oversupply in certain areas and a shortage in others, particularly at the cadre level. The country committed to create a national human resources database in order to track trends to supply and thereby adjust them to demand.

Existence of data gaps to support TVET and industry collaboration in anticipation of future skills needs for the labour market in green and digital future; and on skills gaps and labour market mismatches have occasioned frictional unemployment. This survey was expected to help in defining the type, level and composition of skills that individuals need to perform the work demanded by enterprises. It was also expected to be the main data source of employment structure by occupation, qualification. Among other indicators.

The survey had the main objective of providing up to date information on the skills available to the firms while also bringing out the gaps. Specifically, the survey intended to: Generate data on types of skills and occupations demanded in the economy; Identify skills and occupations shortages; Provide information on skills/gaps that exist, in terms of cognitive, technical (including entrepreneurial and business skills) and socio-emotional skills; Identify prevalent and hard-to-fill occupations in the economy; Provide data and information on quality of employment in terms of earnings and working conditions; and Measure the impact of COVID on employment.

The ESOS survey results only covered the formal sector of the economy and excluded the informal sector. Consequently, the results are representative of only the formal sector, and not of the national economy and are aimed at informing on skills dynamics from the demand side of the labour market.

Hon Florence

Hon Florence Bore CABINET SECRETARY, LABOUR AND SOCIAL PROTECTION

Acknowledgement



First and foremost, I wish to sincerely acknowledge the Cabinet Secretary, Ministry of Labour and Social Protection, Hon. Florence Bore for providing policy direction during this important national undertaking.

Secondly, I wish to appreciate the role played by the Director General, Kenya National Bureau of Statistics (KNBS) Mr. MacDonald Obudho, EBS, for availing his technical staff during the designing and implementation of the survey. We also acknowledge the financial support from the World Bank who availed the much-needed resources as well as technical support.

Thirdly, special mention goes to the Survey Technical Team comprising of James K Maru – Survey Coordinator; Peter A Nyariwo – Head, Labour Market Observatory; Ms. Meldah Angir – Head, Standards; Mr Francis A Mitiambo – Ag. Director NHRPD from the State Department for Labour and Robert K Nderitu, OGW – Director Production Statistics; Benson Karugu, HSC – Labour Statistician; Newton Amugune – Labour Statistician; James N Kinyanjui, HSC-Senior Manager, Sampling Methods and Standards, Prisca W Mwangi-Assistant Sampling, Methods and Standards.

Finally, I would like to thank employers who participated in the survey by providing information that is analyzed herein. I assure them the information they provided is always treated in strict confidence.

Hon Geoffrey Kaituko
PRINCIPAL SECRETARY, STATE DEPARTMENT FOR SKILLS AND SOCIAL
PROTECTION

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Executive Summary Introduction

The long-term development blueprint, Vision 2030, outlined that Kenya's global competitiveness would depend on the ability to create a human resource base that would constantly be subjected to re-training and access to technological learning within employment. These specific human resources play a major role in contributing not only to efficiency gains in existing economic activities, but also in diversifying economic sectors and activities in order to realize productivity gains. The key to success lies in the proactive measures to ensure training of human resources in order to respond to the changes that are triggered by global economic transformation. Kenya's pool of technically qualified personnel and professionals must be matched with skills demand in specific sectors, not deployed to the wrong industries or government departments.

The Ministry of Labour and Social Protection is implementing Component 3 - Improving Labour Market Information (LMI) of the Kenya Youth Employment and Opportunities Project (KYEOP). The component was designed to respond to the problem of non-availability of timely information about labour supply and demand. Therefore, towards achieving the project objectives, Employer Skills and Occupations Survey (ESOS) was proposed to respond to data and information gaps as one of the sub-activities within the ambit of the main activity of production of LMIS content.

Survey Objectives of the 2022 ESOS

The survey had the main objective of providing up to date information on the skills and occupations available in the firms while also bringing out the gaps. Specifically, the survey intended to:

- i. Generate data on types of skills and occupations demanded in the economy;
- ii. Identify skills and occupations shortages;
- iii. Provide information on skills/gaps that exist, in terms of cognitive, technical (including entrepreneurial and business skills) and socioemotional skills;
- iv. Identify prevalent and hard-to-fill occupations in the economy;
- v. Provide data and information on quality of employment in terms of earnings and working conditions; and
- vi. Measure the impact of COVID on employment.

Survey Design

The survey utilized a stratified random sampling design in which the sampling units were enterprises from where the employers were interviewed to provide information about the skills and occupations in the enterprises. The design used in the survey was a representative probability sample to produce national level estimates. A representative sample of enterprises spread across the counties was drawn from the Statistical Business Register (SBR) using systematic random sampling method.

Survey Response Rate

The response rate for the survey was 41 per cent. This is the proportion of successful interviews as a percentage of the sample less closed enterprises. Out of the sampled 14,643 enterprises, sampled enterprises less closed firms were 13,328 enterprises and successful interviewed were 5431 firms.

Key Survey Findings

- i. Overall, micro sized employers constitute the largest proportion in all the broad sectors.
- ii. The survey results revealed that the most common recruitment method was by Informal channels (71.2%). These informal channels include personal contacts, recommendations, etc.
- iii. Overall, Majority of formal sector enterprises are privately owned at 90.9 percent of the total enterprises.
- iv. Male employees in formal sector employment accounted for 62.3 percent of the total employment in 2022. However, in Agriculture, the proportion of females to male is closer at 43.3 percent, while in industry, males are disproportionately higher at 71 percent.
- v. 2.3 million workers were estimated to have regular work contracts as compared to 339,671 who had casual contracts.
- vi. Majority of regular workers have either secondary (25.2%), middle level college (25.2%) or university education (26.7%), while majority of casual employees have either primary or less (24.1%) or secondary education (43.7%). Majority of working proprietors had completed university education at 53.2 percent
- vii. Top three core occupations as ranked by enterprises included: Agriculture Sector-Field Crop Vegetable and Horticultural Farm Workers, Agricultural and Materials-Handling Machinery, and Agriculturalists and Related Professionals; Manufacturing-Metal Molders Welders Structural-Metal Preparers and Related Trades Workers and Electrical Engineering Technicians and Mechanical Engineering and Related Technicians; Construction-Civil Engineers, Building Trades Workers and Civil Engineering and Related Technicians; Trade-Shop Assistants and

Demonstrators, Business Service Agents and Information Clerks; Transportation And Storage-Motor Vehicle Drivers, Material Recording and Transport Clerks and Business Service Agents; Accommodation and Food Service Activities-Waiters Bartenders, Cooks and Other Catering Service Workers and House Stewards and Housekeepers; Information and Communication-Authors and Journalists. Electronics Telecommunications Engineering Technicians and Electrical Electronics and Telecommunications Engineers; Financial and Insurance Activities-Cashiers Tellers and Related Clerks, Insurance Brokers and Agents and Real Estate Activities-Real Estate Agents, Business Service Agents; Business Service Agents and Buyers Appraisers Auctioneers; Education-Primary Education Teachers, Secondary and Technical Institute Teachers and Instructors and Pre-primary Education Teachers; Human Health and Social Work Activities-Medical Doctors, Clinical Officers and Nursing and Mid-wifely Professionals

- Top three core industry specific occupations as ranked by employment size viii. included: Agriculture-Field Crop Vegetable and Horticultural Farm Workers, Wood Treating Cabinet making and Related Trades Workers and Plant and Machine operators and Assemblers; Manufacturing-Weaving Knitting and Sewing Machine Operators, Machine -Tool and Other Metal-Working Machine Operators and Wood Products Machine Operators; Construction-Electrical Electronics and Telecommunications Engineers, Civil Engineers and Building Trades Workers; Trade- Shop Assistants and Demonstrators, Business Service Agents and Cashiers Tellers and Related Clerks; Transportation And Storage-Motor Vehicle Drivers, Mechanical Engineering and Related Technicians and Ship and Flight Attendants and Travel Stewards; Accommodation And Food Service Activities-Waiters Bartenders, Cooks and Other Catering Service Workers and House Stewards and Housekeepers; Information And Communication-Authors Journalists and Related Professionals. Electronics Telecommunications Engineering Technicians and Computing Professionals; Financial and Insurance Activities-Securities and Finance Dealers, Cashiers Tellers and Related Clerks and Insurance Brokers and Agents; Real Estate Activities-Real Estate Agents, Buyers Appraisers Auctioneers and Business Service Agents; Education-Primary Education Teachers, Secondary and Technical Institute Teachers and Instructors and Pre-primary Education Teachers; Human Health and Social Work Activities-Nursing and Mid-wifely Professionals, Clinical Officers and Nutrition Workers.
- ix. Over 15 percent of establishments in Agriculture, Accommodation and Food Services and Education reported a reduction in employment compared to the previous 12 months. On the other hand, over 8 percent of establishments in education, accommodation and food service activities and; human health reported increase in employment over the same period.
- x. Among the occupations that registered the highest growth in employment were protective service workers accounted for 13 percent, tertiary

- education teachers at 12 per cent and Business service agents at 8 percent.
- xi. Wood product machine operators accounted for 16 percent of the ten occupations that had the highest decline in employment, followed by other teachers and instructors; and waiters each at 15 percent, respectively.
- xii. Most hired jobs reported by Employers to have hired were primary teachers at 3,752 persons, followed by drivers (3,605 persons) and business service agents (3,233 persons).
- xiii. 59 per cent of the enterprise reported difficulty in hiring pharmaceutical officers, computing professionals (49%), primary teachers (49%) and accountants (46 %.)
- xiv. The most common reasons were insufficient applicants with the required skills (32.6%) and applicants demanded higher wages than employers could offer (35.1%). Only 2.7 percent of firms stated that their applicants did not like the working conditions while 15.8 per cent of firms reported no or few applicants.
- xv. Further, Figure 3.9b shows hard to fill occupations in which "lack of required skills" was given as the main reason for difficulty in hiring. Hairdressers and barbers (100 percent), computing professionals (69.9 percent), Shop assistants (60.8 percent), building trade workers (59.4 percent), Drivers (54 percent) and pharmaceutical officers (53.3 percent) were the occupations where lack of required skill was a major hindrance to fill the vacancies.
- xvi. 80 per cent of employers did not fill the vacancies due to job seekers lacking technical skills while only 8 per cent of employers reported lack of cognitive skills. While development of adequate occupation- specific skills is a challenge for the TVET system, development of adequate sociobehavioral and cognitive skills is a challenge for the general education system.
- xvii. Lack of Job specific technical skills except Hairdressers and Barbers Beauticians occupational category that showed applicants lacked interpersonal and behavioral skills, while business service agents occupational category showed cognitive skills as lacked by applicants
- xviii. Among professionals, larger proportions of current vacancies reported were among Secondary and Technical Institute Teachers and Instructors, Accountants, Computing Professionals and Nurses
 - xix. Vacancies in that were reported in technicians' occupations. Business and Public Service Middle Level Personnel and Business Service Agents occupations constituted more than 60 percent of all the vacancies that occurred in Technician occupations.
 - xx. Most professionals (over 50% of firms reported) attract salaries above KSh 50,000 of which 24 percent attract salaries of KSh 100,000 and above. On the other hand, vacancies for all other occupations (at least 70 percent) attract salaries of less than KSh 50,000.
 - xxi. Typical median earnings range from as low as KSh 12,000 for waiters to as high as KSh 50,000 for personnel and occupational professionals,

- followed by computing professionals and accountants with median earnings of KSh 45,000 and KSh 43,000 respectively.
- xxii. Employers considered the top five most important skills among professionals (High skilled workers) as communication skills, work ethics, managerial and planning skills, customer handling skills, and reading and understanding instructions, planning skills.
- xxiii. Employers consider the top five most important skills among Technicians (Middle-Skilled Workers) as communication skills, work ethics, customer handling skills, teamwork and ability to work independently
- xxiv. Employers were asked to give opinion on quality and relevance of University Education and TVET education to labor market need. In the 2022 ESOS, in all the areas, employers perceived TVET institutions to produce peoples with high employability skills as compared to university institutions.
- xxv. Advanced ICT skills (49 percent), More complex numerical skills (38 per cent) and Advanced technical skills specific to the job (35 percent) as the set of skills that need improvement across all occupational categories.
- xxvi. Among high skilled workers (Professionals), 49 percent of employers indicated advanced IT Skills, 35 percent indicated communicating in foreign language, 34 percent indicated more complex numerical skills, 32 percent indicated advanced technical specific skills and 26 percent manual as the most insufficient skill among the highly skilled workers However, a majority of employers (57 percent) indicated that communicating in foreign languages is a skill that is not needed even though some employers indicated the skill as insufficient among high skilled workers.
- xxvii. Among middle skilled workers (Technicians), 49 percent of employers indicated advanced IT Skills, 42 per cent indicated more complex numerical skills, 38 percent indicated advanced technical specific skills and 33 per cent indicated communicating in foreign language as the most insufficient skill among the highly skilled workers. However, a majority of employers (61 percent) indicated that communicating in foreign languages is a skill that is not needed even though some employers indicated as the skill as insufficient among middle level workers.
- xxviii. The impact of the COVID pandemic and containment measures led to a severe contraction in employment as many people were laid off. The survey revealed that 83.2 percent of the affected workers were unskilled.

Conclusions

- i. Majority of formal enterprises are micro-enterprises by size of employment (employing less than 10 workers) in all the sectors of the economy in Kenya.
- ii. Overall, Service Sector employs more workers than formal agriculture and industry sectors combined.

- iii. For every one female employee, there are approximately two male employees in all formal sector employment.
- iv. The majority of workers in the formal sector are regular employees.
- v. Regular workers in the formal sector are likely to be more educated than casual workers.
- vi. Fewer proportions of enterprises indicated increases/decreases in employment in all industries.
- vii. Employment increased across occupations in most enterprises. Employment growth was the strongest among protective service workers, university and post-secondary teachers, business service agents and nurses' occupations.
- viii. Employment declined among wood products machine operators, other teachers and instructors; and waiters' occupations.
- ix. Employees chance of getting a job depends on the hiring pattern of enterprises. The more enterprises hire workers in certain occupations, the better the employment chances of workers in those occupations. By this metric, primary teachers, drivers and business service agents faced by far the best employment chances.
- x. It was particularly difficult to hire workers with high skills (professionals and technicians) than workers with low skills (Plant and Machine Operators).
- xi. Technical-job specific skills were lacking among all job applicants in all occupations.
- xii. Informal channels (personal contacts, people recommended by other employees) is the preferred method of recruitment.
- xiii. Employers considered the top five most important skills among professionals (High skilled workers) as communication skills, work ethics, managerial and planning skills, customer handling skills, and reading and understanding instructions and planning skills.
- xiv. Employers consider the top five most important skills among Technicians (Middle-Skilled Workers) as communication skills, work ethics, customer handling skills, teamwork and ability to work independently.
- xv. Advanced ICT skills, more complex numerical skills, and advanced technical skills specific to the job are the set of skills that need improvement across all occupational categories.

xvi.

- xvii. Advanced IT Skills, more complex numerical skills, advanced technical specific skills are the most insufficient skill among the highly skilled.
- xviii. Advanced IT Skills, more complex numerical skills, advanced technical specific skills are the most insufficient skill among the middle level workers.

Acronyms and Abbreviation

LMI: Labour Market Information

ESOS: Employer Skills and

Occupations Survey

COVID: COVID-19

SBR: Statistical Business Register

TVET: Technical Vocational Education and

Training

KYEOP: Kenya Youth Employment and

Opportunities Project

CAPI: Computer Aided Personal

Interview

ASAL: Arid and Semi-Arid Lands

KNOCS: Kenya National Occupations

Classification Standard

RA: Research Assistant

ISIC Rev

4: International Standard Industrial Classification of All

Economic Activities

KeSIC: The Kenya Standard Industrial Classification of All Economic

Activities

KNBS: Kenya National Bureau of Statistics

Chapter 1: Background and Introduction

1.1 Background and Context

The long-term development blueprint, Vision 2030, outlined that Kenya's global competitiveness would depend on the ability to create a human resource base that would constantly be subjected to re-training and access to technological learning within employment. These specific human resources play a major role in contributing not only to efficiency gains in existing economic activities, but also in diversifying economic sectors and activities in order to realize productivity gains. The key to success lies in the proactive measures to ensure training of human resources in order to respond to the changes that are triggered by global economic transformation. Kenya's pool of technically qualified personnel and professionals must be matched with skills demand in specific sectors, not deployed to the wrong industries or government departments.

Accurate human resource data is required to strengthen the management and co-ordination of human resources. The production of human resources has continued to be supply-driven and does not adequately respond to changing employment requirements. This has led to an oversupply in certain areas and a shortage in others, particularly at the cadre level. The country committed to create a national human resources database in order to track trends to supply and thereby adjust them to demand.

The Ministry of Labour and Social Protection is implementing Component 3 - Improving Labour Market Information (LMI) of the Kenya Youth Employment and Opportunities Project (KYEOP). The component was designed to respond to the problem of non-availability of timely information about labour supply and demand. Therefore, towards achieving the project objectives, Employer Skills and Occupations Survey (ESOS) was proposed to respond to data and information gaps as one of the sub-activities within the ambit of the main activity of production of LMIS content.

The last national demand side survey for the formal sector was carried out in 2010 (National Manpower Survey, 2010). Existence of data gaps to support TVET and industry collaboration in anticipation of future skills needs for the labour market in green and digital future; and on skills gaps and labour market mismatches have occasioned frictional unemployment. This survey will help in defining the type, level and composition of skills that individuals need to perform the work demanded by enterprises. It will also be the main data source of employment structure by occupation and qualification.

1.2 Objectives of the 2022 ESOS

The survey had the main objective of providing up to date information on the skills and occupations available in the firms while also bringing out the gaps. Specifically, the survey intended to:

- i. Generate data on types of skills and occupations demanded in the economy;
- ii. Identify skills and occupations shortages;
- iii. Provide information on skills/gaps that exist, in terms of cognitive, technical (including entrepreneurial and business skills) and socioemotional skills;
- iv. Identify prevalent and hard-to-fill occupations in the economy;
- v. Provide data and information on quality of employment in terms of earnings and working conditions; and
- vi. Measure the impact of COVID on employment.

Chapter 2: Survey Design and Methodology

2.1 Introduction

The 2022 Employer Skills and Occupations Survey (ESOS) was a cross-sectional study that was designed to provide estimates relating to available skills for the enterprises and the existing gaps at national level. The target population for the survey was all the formal enterprises including public and private enterprises in the country.

2.2 Survey Design

The survey utilized a stratified random sampling design in which the sampling units were enterprises from where the employers were interviewed to provide information about the skills and occupations in the enterprises. The design of the survey used a representative probability sample to produce national level estimates. A representative sample of enterprises spread across the counties was drawn from the Statistical Business Register (SBR) using systematic random sampling method.

2.3 Sampling frame

The sampling frame utilized in the survey is the Statistical Business Register (SBR) maintained by the Kenya National Bureau of Statistics. The register contains a database of formal enterprises in the country and has variables which were used for stratification including size of the enterprise and main economic activity. The frame also contains location and contact information for the enterprises.

2.4 Stratification

The targeted enterprises in the survey were from all economic sectors except those in Section T (Activities of household) and Section U (Activities of Extra-Territorial Bodies). The KeSIC section classification formed the first level of stratification. Within these KeSIC sections, enterprises were further stratified by size of employment where each was classified as micro (0-9 employees), small (10-49 employees), medium (50-99 employees), large (100-299) and 300 and above. Classification by size of employment formed the second level stratification. Implicit stratification of the enterprises was also achieved by sorting the enterprises using their geographic location.

2.5 Sample size, allocation and Selection

To compute the sample size for the key indicators of the survey, a maximum margin of error to be tolerated was set at 1.3 percent at a confidence level of 95 percent. The prevalence rate of the key indicators was assumed to be 50 percent which is the peak rate meant to yield the maximum possible sample size. The sample size was adjusted for possible non-response and expected number of

closed enterprises at 61 percent and 60 percent respectively. The non-response and business closure rates was informed by the pilot which was conducted prior to the survey. Ultimately, the estimated sample size for the survey was 14,643 enterprises.

The sample was first allocated to the sectors before it was allocated to the size strata following the two levels of stratification. The allocation of the sample to the first level strata (sector) was done using the power allocation method to ensure that all the strata had adequate samples. Allocation to the second level strata (size strata) was done using proportional allocation. The allocation of the sample to the various survey strata is shown in Table 2.1. Based on the survey design, the sampling of enterprises was done independently within each stratum using systematic random sampling procedure. However, all enterprises with 300 or more employees were selected with certainty.

Table 2.1: Sample Distribution by Economic Sector and Size

-			Size of th	e enterp	rise	
	2.51			_	300 and	
Section	Micro	Small	Medium	Large	Above	Total
Agriculture, forestry and fishing	201	74	13	16	93	397
Mining and Quarrying	57	25	6	2	8	98
Manufacturing	603	263	65	80	152	1,163
Electricity, gas, steam and air conditioning supply	172	47	6	5	13	243
Water supply; sewerage, waste management and remediation activities	69	28	10	12	7	126
Construction	890	184	26	15	40	1,155
Wholesale and retail trade; repair of motor vehicles and motorcycles	2,534	527	62	43	54	3,220
Transportation and storage	406	162	37	23	35	663
Accommodation and food service activities	721	303	28	20	18	1,090
Information and communication	502	100	18	18	16	654
Financial and insurance activities	452	166	31	46	50	745
Real estate activities	550	108	14	5	-	677
Professional, scientific and technical activities	587	155	29	9	18	798
Administrative and support service activities	465	154	28	20	64	731
Public administration and defence; compulsory social security	35	33	4	6	7	85
Education	313	528	67	34	56	998
Human health and social work activities	351	170	41	25	54	641
Arts, entertainment and recreation	116	23	6	5	-	150
Other service activities	804	151	15	16	23	1,009
Total	9,828	3,201	506	400	708	14,643

2.6 Development of Survey Instruments

The development of questionnaires, manuals and CAPI System was done through a consultative process involving the Ministry of Labour and Social Protection and Kenya National Bureau of Statistics. Technical officers were engaged in deciding on the variables on which data would be collected. The questionnaire as provided in Appendix 1 had the following modules:

- 1. Basic Information
- 2. Total Employment by Sex, Earnings and Education Attainment
- 3. List of Occupations within the Firm/organization
- 4. Employment and Employment Changes by Occupation
- 5. Vacancies and Hiring Workers
- 6. Importance of Different Skills
- 7. Employers' Assessment of University and TVET Education Performance
- 8. Skill Gaps
- 9. Training
- 10. Additional Information about the Enterprise

2.7 Pre-Test and Pilot Survey

A pilot survey was undertaken aimed at testing the sampling design, data collection instruments, methodology, field logistics and use of Computer Aided Personal Interview (CAPI) for data collection. The survey covered five Counties namely, Nairobi, Mombasa, Nyeri, Busia and Garissa which were purposively selected to represent various scenarios that were expected during the main survey. Nairobi and Mombasa were selected to represent major urban centres with Mombasa also representing counties with ports. Garissa represented ASAL and nomadic counties while Nyeri and Busia represented agricultural counties and areas with normal urban centres. Busia was also selected to represent border counties.

A sample of one hundred and thirty private enterprises were sampled to represent most of possible expected scenarios. The findings of the pilot survey were used to firm up the survey methodology, refine the survey instruments and review the survey logistics. The pilot also informed on the need to track the enterprises beforehand to improve the response rates during the main survey.

2.8 Management of the Survey

The main survey data collection team composed of research assistants, supervisors, drivers and coordinators. Each supervisor was in charge of a team of enumerators and was responsible for scheduling meetings with management of the sampled enterprises and ensuring the teams collected quality data. The

supervisors were also tasked to generally support the research assistants. These teams were assisted by Coordinators who were in charge of several counties to oversee data collection activities and ensure a smooth workflow.

2.9 Recruitment and Training for Data Collection

Supervisors were drawn from the Ministry's staff establishment while enumerators were recruited on a temporary basis. A total of 100 research assistants were recruited and 30 supervisors engaged. Prior to the main training, a training of trainers was conducted to equip trainers with knowledge on ESOS survey and the CAPI system. Thereafter, all trainees underwent training for a period of 6 days in Kisumu to impact them on the required survey skills and knowledge for quality data collection. The trainees were taken through the objectives of the survey, various classification systems (KNOC and KeSIC) and the data collection questionnaire. CAPI training was also done to familiarize the trainees on the questionnaire on CAPI, data transmission and system update. In-class presentation was conducted for the personnel to familiarize themselves with how to conduct the interviews.

2.10 Data collection

Data collection was undertaken for two months from June to July 2022. The data collection personnel were divided into 30 teams, each comprising of one supervisor and a maximum of four enumerators. Each of the supervisors was allocated one vehicle to be used by all his/her team members during the field work. Some teams covered several counties depending on the number of establishments allocated. Weekly progress updates and feedback were given by all supervisors to mitigate any issues affecting the survey results. During the fieldwork, all team supervisors, were expected to review the data sent by RAs for quality checks before resending the reviewed data to the server.

2.11 Data Processing

Data for the 2022 ESOS was collected using Tablets. Programming was done using CAPI technology developed from Survey Solutions software. This software was chosen due to its simplified user interface. The designed data collection application incorporated inbuilt data checks, validation rules and skip patterns to minimize data collection errors. The teams were facilitated with internet bundles to enable real time data transmission to a central server.

Data cleaning such as taking stock of all sampled enterprises, checking for duplicates, missing records and outliers was carried out based on the developed editing specifications. A team comprising subject-matter experts and data processing team validated field coded variables for both KNOCS and KeSIC standards alongside descriptions provided by the research assistants. Data tabulation plans were developed in line with the survey objectives and outputs

based on the plans were generated. STATA software was used for the data analysis.

2.12 Data Weighting and Weight Adjustments

Weighting of the data was necessary since the selected samples were not self-weighting due to disproportionate allocation of the sample. Weighting of the data was also necessary to adjust for non-responding enterprises. Therefore, weights were computed, applied to the data and used in analysis to provide estimates representative of the target population. Weighting involved taking the inverse of probability of selection of the enterprises from the sampling frame. The weights were further adjusted to cater for nonresponse. Employee weights were computed and applied to modules that related to employee information. The results presented in this report are based on the weighted data.

2.13 Survey Response Rates

The response rate for the survey was 41 per cent as shown in Table 2.2. This is the proportion of successful interviews as a percentage of the sample less closed enterprises.

Table 2.2: Response Rates

Enterprises	Number
Sampled enterprises	14,643
Sampled enterprises less Closed firms	13,328
Interviewed enterprises	5,431
Response rate	40.7

2.14 Challenges faced during implementation of the survey

- 1. Insecurity was witnessed in the Samburu, Baringo, West Pokot Counties limiting accessibility to the enterprises.
- 2. Adverse weather conditions were witnessed in Garissa County.
- 3. Hostility from some respondents and refusals by the respondents, that included but not limited to locking out the interviewers from the enterprises.
- 4. Closed and untraceable enterprises from the sample. Some enterprises had changed location and therefore difficult to locate.
- 5. Some of the CAPI tablets drained power, could not pick the GPS or crashed during the interviews.
- 6. Some of the sampled enterprises did not have some crucial information such as the business location and telephone numbers. It was, therefore, difficult for the data collection teams to locate some of these enterprises.
- 7. Locating enterprises that had been registered by individual names was difficult.

Chapter 3: Key Survey Findings

3.1 Introduction

This Chapter presents results of the Employer Skills and Occupations Survey (ESOS), that include magnitude of enterprises; business ownership; total formal employment; educational level completed by workers; core occupation; employment changes; hired occupations; hard to fill occupations; current vacancies; typical earnings by occupations; key employability skills; Employer perception on training and education; skill gaps; skills development; and covid effect on employment.

3.2 Magnitude of Enterprises

The survey sought to categorize employers by size and broad economic sectors. Distribution of enterprises by broad economic sectors as presented in Table 3.1, shows that service sector (That includes Trade, education, Finance, Transport, Health, Hospitality, etc.) accounted for 84 percent of the total enterprises. Industry and formal agriculture sectors accounted for 13 and 3 per cent, respectively, during the same period

Table 3.1: Employers distribution by Broad Economic Sectors

Table Strict Project and the agent	21044 200101110 2001012	
Broad Sector	Enterprises	Percent
Agriculture	4,355	3
Industry	19,371	13
Services	123,640	84
Total	147,366	100

Further, Figure 3.1 shows percentage distribution of enterprises by employment size for 2022. Overall, micro sized employers constitute the largest proportion in all the broad sectors.

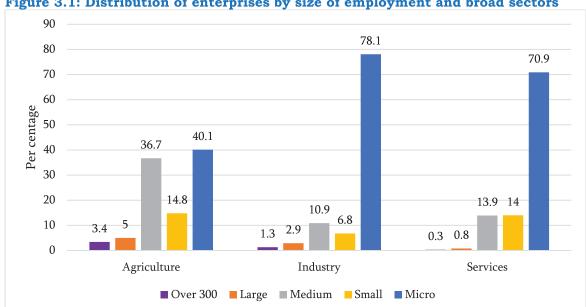
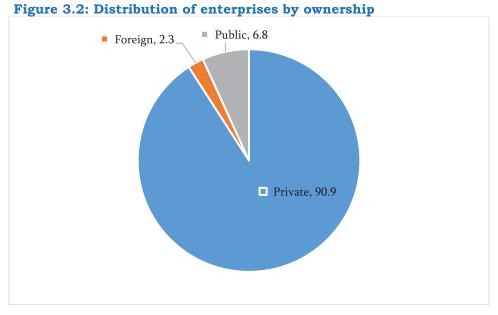


Figure 3.1: Distribution of enterprises by size of employment and broad sectors

3.3 **Business ownership**

Distribution of employers by ownership type is presented as shown in Figure 3.2. Overall, Majority of formal sector enterprises are privately owned at 90.9 per cent of the total enterprises.



3.4 Total formal sector employment by Sex

Employment by industry and sex is presented in Table 3.2. According to the survey results, Male employees in formal sector employment accounted for 62.3 per cent of the total employment in 2022. Only in Agriculture, the proportion of females to male is closer at 43.3 per cent, while in industry, males are disproportionately higher at 71 per cent.

Table 3.2: Distribution of employees by industry and sex

	Male		Female		Total	
Broad Sector		%		%		%
Agriculture	174,136	56.7	132,991	43.3	307,127	11
Industry	436,574	71.0	178,596	29.0	615,170	22
Services ¹	1,127,174	60.3	741,278	39.7	1,868,451	67
Total	1,737,885	62.3	1,052,863	37.7	2,790,748	100

¹ Excluding Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use and Activities of extraterritorial organizations and bodies

3.5 Terms of Employment of Formal Sector Workers

The quality of job determines to a great extent of the well-being and life quality of workers, but measuring it requires taking into account numerous aspects of working conditions, of which include terms of employment of workers. Table 3.3. shows the distribution of employees by broad economic sectors and terms of employment. 2.3 million workers were estimated to have regular work contracts as compared to 339,671 who had casual contracts.

Table 3.3: Distribution of employees by industry and category of workers

	Regular E	nployees	Casual Employees		Working D		
Broad Sectors	Male	Female	Male	Female	Male	Female	Total
Agriculture	134,374	103,108	35,335	27,598	4,428	2,285	307,127
Industry	292,816	130,616	113,050	41,203	30,708	6,777	615,170
Services	989,153	668,509	74,121	48,364	63,900	24,405	1,868,451
Total	1,416,343	902,232	222,506	117,165	99,036	33,466	2,790,748

Figure 3.3 shows the percentage distribution of employees by terms of employment and sex. Both sexes have significant proportions of regular workers within them. Males have 81.7 per cent as compared to females at 85.2 per cent. Both sexes also have lower proportions of casual workers compared to regular worker. The survey also revealed that there was almost an equal proportion of working directors among males and females.

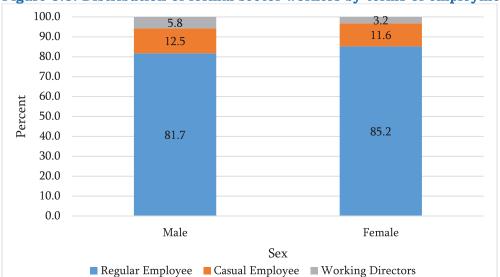


Figure 3.3: Distribution of formal sector workers by terms of employment and sex

3.6 Education Level Completed by Formal Sector Workers

Figure 3.4 presents a summary distribution of formal sector workers by terms of employment and education level completed. Majority of regular workers have completed either secondary (25.2%), middle level college (25.2%) or university education (26.7%), while majority of casual employees have completed either primary or less (24.1%) or secondary education (43.7%). Majority of working proprietors had completed university education at 53.2 per cent

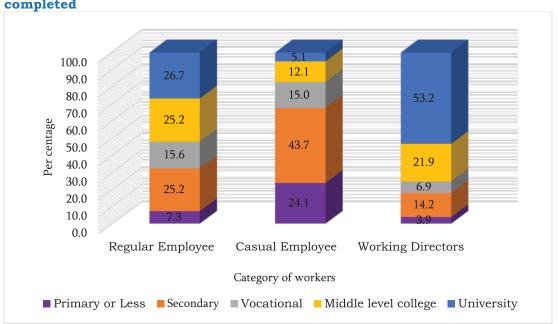


Figure 3.4: Distribution of employees by category of workers and education level completed

3.7 Top Three Core Occupations Within Industries

Table 3.4 shows top three most common industry-specific occupations as reported by enterprises. In the occupation list, industry specific occupations are ranked in the order of most common as reported by enterprises.

Further, Table 3.5 lists top three core industry specific occupations as reported, by employment size. In the occupation list, industry specific occupations are ranked in order of largest employing occupation within sectors.

Table 3.4: Top three most common occupations by sectors

AGRICULTURE

Field Crop Vegetable and Horticultural Farm Workers

Agricultural and Materials _ Handling Machinery

Agriculturalists and Related Professionals

INDUSTRY

Manufacturing

Metal Molders Welders Structural-metal Preparers and Related Trades Workers

Electrical Engineering Technicians

Mechanical Engineering and Related Technicians

Construction

Civil Engineers

Building Trades Workers

Civil Engineering and Related Technicians

SERVICES

TRADE

Shop Assistants and Demonstrators

Business Service Agents

Information Clerks

Transportation And Storage

Motor Vehicle Drivers

Material Recording and Transport Clerks

Business Service Agents

Accommodation And Food Service Activities

Waiters Bartenders

Cooks and Other Catering Service Workers

House Stewards and Housekeepers

Information And Communication

Authors and Journalists

Electronics and Telecommunications Engineering Technicians

Electrical Electronics and Telecommunications Engineers

Financial And Insurance Activities

Cashiers Tellers and Related Clerks

Insurance Brokers and Agents

Business Service Agents

Real Estate Activities

Real Estate Agents

Business Service Agents

Buyers Appraisers Auctioneers

Education

Primary Education Teachers

Secondary and Technical Institute Teachers and Instructors

Pre-primary Education Teachers

Human Health And Social Work Activities

Medical Doctors

Clinical Officers

Nursing and Mid-wifely Professionals

Table 3.5: Top three most common occupations by employment size

Agriculture

Field Crop Vegetable and Horticultural Farm Workers

Wood Treating Cabinet making and Related Trades Workers

Plant and Machine operators and Assemblers

INDUSTRY

Manufacturing

Weaving knitting and sewing machine operators

Machine -Tool and Other Metal-Working Machine Operators

Wood Products Machine Operators

Construction

Electrical Electronics and Telecommunications Engineers

Civil Engineers

Building Trades Workers

SERVICES

Wholesale And Retail Trade

Shop Assistants and Demonstrators

Business Service Agents

Cashiers Tellers and Related Clerks

Transportation And Storage

Motor Vehicle Drivers

Mechanical Engineering and Related Technicians

Ship and Flight Attendants and Travel Stewards

Accommodation And Food Service Activities

Waiters Bartenders

Cooks and Other Catering Service Workers

House Stewards and Housekeepers

Information And Communication

Authors Journalists and Related Professionals

Electronics and Telecommunications Engineering Technicians

Computing Professionals

Financial And Insurance Activities

Securities and Finance Dealers

Cashiers Tellers and Related Clerks

Insurance Brokers and Agents

Real Estate Activities

Real Estate Agents

Buyers Appraisers Auctioneers

Business Service Agents

Education

Primary Education Teachers

Secondary and Technical Institute Teachers and Instructors

Pre-primary Education Teachers

Human Health And Social Work Activities

Nursing and Mid-wifely Professionals

Clinical Officers

Nutrition Workers

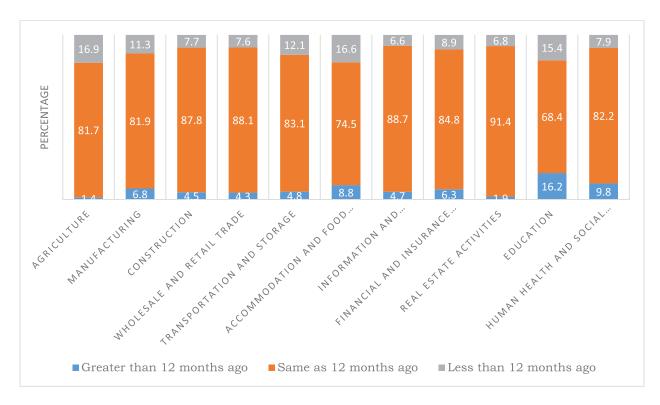
3.8 Employment changes

Employment changes in industries and occupations reflect the choice of individual workers and the demand structure of the overall economy. Changes in employment, growing and declining occupations strongly affect occupational distribution as each industry has unique needs in terms of workers skills. This section therefore, presents employment changes in industries, growing and declining occupations.

3.8.1 Employment changes in Industries

Figure 3.5 shows percentage proportions of enterprises by industry that reported changes in employment in the last 12 months prior to the survey period. Fewer proportions of enterprises indicated increases/decreases in employment in all industries. Over 15 percent of establishments in Agriculture, Accommodation and Food Services and Education reported a reduction in employment compared to the previous 12 months. On the other hand, over 8 percent of employers in education, accommodation and food service activities and; human health reported increase in employment over the same period.

Figure 3.5: Percentage Proportions of Enterprises by Industry and Employment changes in the last 12 months



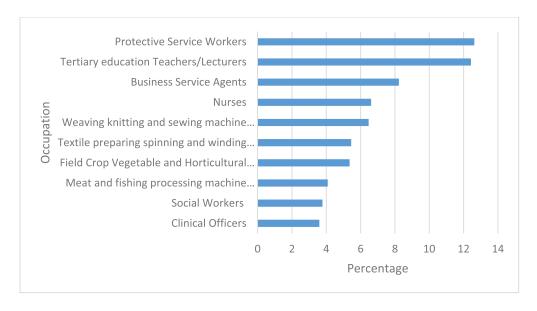
3.8.2 Growing Occupations

Tables 3.6 shows the distribution of growing occupations in employment over the last 12 months prior to the survey period as reported by firms. This is further illustrated in Figure 3.6a. Among the occupations that registered the highest growth in employment were protective service workers accounted for 13 percent, university and post-secondary teachers at 12 percent and Business service agents at 8 percent.

Table 3.6: Growing Occupations and number of employees

Occupation	Net Increase
Protective Service Workers	695
Tertiary education Teachers/Lecturers	684
Business Service Agents	453
Nurses	364
Weaving knitting and sewing machine operators	356
Textile preparing spinning and winding machine operators	300
Field Crop Vegetable and Horticultural Farm Workers	295
Meat and fishing processing machine operators	225
Social Workers	208
Clinical Officers	198

Figure 3.6a: Growing Occupations



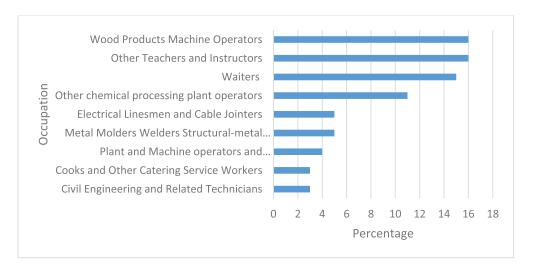
3.8.3 Declining Occupations

Tables 3.7 show the distribution of declining occupations in employment over the last 12 months prior to the survey period. This is further illustrated in Figure 3.6b. Wood product machine operators accounted for 16 percent of the ten occupations that had the highest decline in employment as shown in Figure 3.7b. This was followed by other teachers and instructors; and waiters each at 15 percent, respectively.

Table 3.7: Declining Occupations and number of employees

Occupation	Net Decrease
Wood Products Machine Operators	150
Other Teachers and Instructors	144
Waiters	140
Other chemical processing plant operators	104
Metal Molders Welders Structural-metal Preparers and Related Trades Workers	45
Electrical Linesmen and Cable Jointers	45
Plant and Machine operators and Assemblers not elsewhere classified	39
Civil Engineering and Related Technicians	25
Cooks and Other Catering Service Workers	25

Figure 3.6b: Declining Occupations



3.9 Hiring Occupations

In identifying obstacles firms face when trying to hire workers and fill job vacancies, firms were asked to list occupations in which they tried to hire employees in the last 12 months. Figure 3.7 shows percentage proportions of enterprises by occupations that tried to hire in the last 12 months prior to the survey period. 53 percent of all enterprises that responded tried to hire Primary and pre-primary teachers (20.3 percent); House stewards and waiters (9.8 percent); Teaching professionals (6.2 percent); Business and social services professionals (5 percent); Business professionals (4.6 percent); Drivers (3.7 percent); and Shop assistants (3.5 percent).

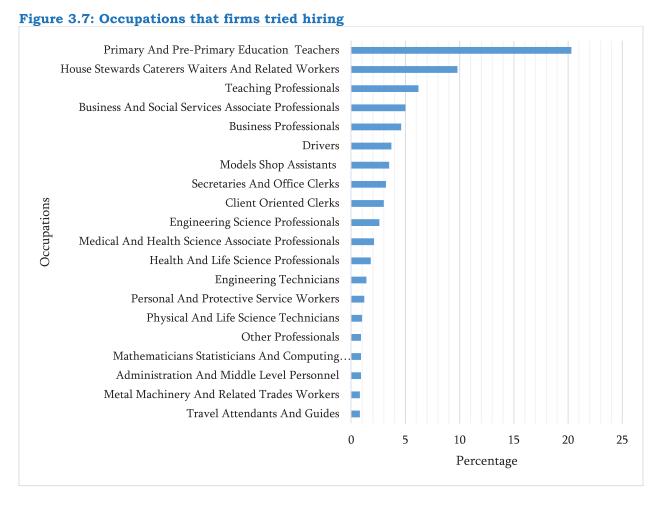


Table 3.8 shows ranking of top five occupations within major occupational groups in which firms tried hiring in the last 12 months prior to the survey period. Within professional and technician occupations, secondary school teachers and primary school teachers constituted the largest numbers of occupations that employers tried hiring respectively.

Table 3.8: Top five occupation	in which firms	tried hiring by major groups
--------------------------------	----------------	------------------------------

OCCUPATION	Number
Proffesional	
Secondary and Technical Institute Teachers and Instructors	1,395
Accountants Auditors and Tax Assessors	1,163
Civil Engineers	426
University and Post-secondary Teachers/Lecturers	398
Nureses	295
Technicians	
Primary Education Teachers	4,610
Business Service Agents	1,191
Pre-primary Education Teachers	828
Other Teachers and Instructors	452
Pharmaceutical Officers	273
Secretarial, Clerical Services And Related Workers	
Information Clerks	518
Cashiers Tellers and Related Clerks	350
Numerical Clerks	303
General Office Clerks	229
Secretaries Stenographers and Typists	207
Service Workers, Shop And Market Sales Workers	
Cooks and Other Catering Service Workers	1,716
Shop Assistants and Demonstrators	1029
Waiters Bartenders	856
House Stewards and Housekeepers	273
Hairdressers Barbers Beauticians and Related Workers	233
Craft And Related Trades Workers	
Building Trades Workers	171
Machinery Mechanics and Fitters	152
Tailors Dressmakers and Related Workers	149
Handicraft Workers	141
Metal Molders Welders Structural-metal Preparers and Related Trades Worke	63
Plant And Machine Operators And Assemblers	
Motor Vehicle Drivers	1,065
Grain and Spice-milling Machine Operators	29
Plant and Machine operators and Assemblers not elsewhere classified	27
Machine -Tool and Other Metal-Working Machine Operators	24
Rubber and plastic products machine operators	20

3.10 Hired Occupations in the formal sector

Hired occupations are occupations in which employers hired a number of new employees during the last 12 months. Accordingly, this suggest that these occupations are in high demand. Workers who look for work and have the required occupation-specific skills have good chances of finding employment in these occupations.

Table 3.9 shows top 20 occupations in which firms hired during the reference period. The jobs where employers reported to have hired most employees were primary school teachers at 3,752 persons, followed by drivers (3,605 persons) and business service agents (3,233 persons).

Table 3.9: Top 20 Hired occupations in the formal sector

	c 0.9. Top 20 filled occupations in the format	Number
Sno.	Occupations	Hired
1	Primary education teachers	3,752
2	Drivers	3,605
3	Business service agents	3,233
4	Business professionals	2,545
5	Salespersons	1,977
6	Waiters	1,836
7	Accountants & auditors	1,681
8	Electronics & telecommunications engineering technicians	1,389
9	Nurses	1,375
10	Construction workers	1,219
11	Business & public service middle level personnel	1,209
12	Civil engineers	1,178
13	Cooks	1,135
14	Electrical engineering technicians	1,100
15	Weaving, knitting & sewing machine operators	1,035
16	Chemical processing machine operators	962
17	Information clerks	944
18	Secondary & technical institute teachers	912
19	Protective service workers	795
20	Textile preparing, spinning & winding machine operators	714

Further, analysis shows that most demanded jobs within professionals occupations are business professionals, accountants and nurses. Most demanded jobs among technicians are primary school teachers, business service agents and engineers. In addition, most demanded jobs among sales and service workers are shop assistants, waiters and cooks. This is shown in Table 3.10.

Table 3.10: List of main occupations in which firms hired by major occupational groups

	Number
OCCUPATION	hired
Proffesional	
Other Business Professionals	2,545
Accountants	1,681
Nurses	1,375
Civil Engineers	1,178
Secondary and Technical Institute Teachers and Instructors	795
Technicians	
Primary Education Teachers	3,752
Business Service Agents	3,233
Electronics and Telecommunications Engineering Technicians	1,389
Business and Public Service Middle Level Personnel	1,209
Electrical Engineering Technicians	1,035
Service Workers, Shop And Market Sales Workers	
Shop Assistants and Demonstrators	1,977
Waiters	1,836
Cooks	1,135
Protective Service Workers	714
House Stewards and Housekeepers	336
Craft And Related Trades Workers	
Building Trades Workers	1,219
Machinery Mechanics and Fitters	292
Tailors	202
Metal Molders Welders Structural-metal Preparers and Related Trades Workers	184
Butchers Fishmongers and Related Food Preparers	131
Plant And Machine Operators And Assemblers	
Drivers	3,605
Weaving knitting and sewing machine operators	962
Other chemical processing plant operators	944
Textile preparing spinning and winding machine operators	708
Rubber and plastic products machine operators	378

3.11 Hard to Fill Occupations

Difficulty in hiring is an indicative of shortage in occupations where employers are having a hard time filling such occupations. Firms were asked to state whether they tried hiring in the last twelve months prior to the survey period and whether any were any difficulty in hiring. Figure 3.8 shows percentage distribution of difficult to hire occupations by percentage of firms that reported. Comparing between occupational categories, 59 percent of the enterprise reported difficulty in hiring pharmaceutical officers, computing professionals (49 percent), primary teachers (49 percent) and accountants (46 percent).

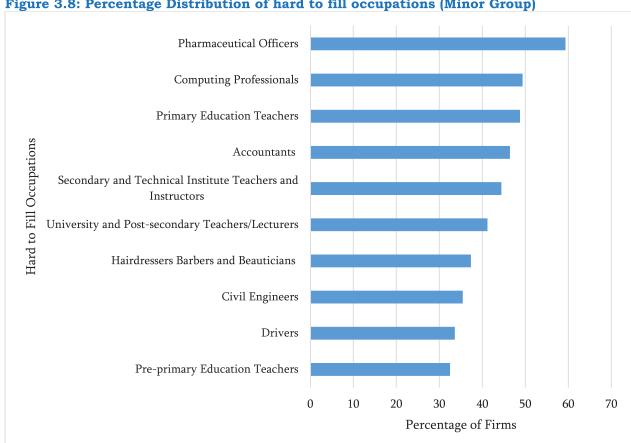


Figure 3.8: Percentage Distribution of hard to fill occupations (Minor Group)

3.11.1 Main Reasons for difficulty in hiring

The firms that indicated difficulties in hiring, were further asked why they were experiencing difficulties in hiring. These are shown graphically in Figure 3.10a. The most common reasons were insufficient applicants with the required skills (32.6 percent) and applicants demanded higher wages than employers could offer (35.1 percent). Only 2.7 percent of firms stated that their applicants did not like the working conditions while 15.8 percent of firms reported no or few applicants.

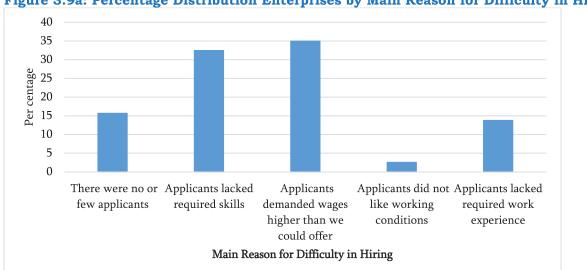


Figure 3.9a: Percentage Distribution Enterprises by Main Reason for Difficulty in Hiring

3.11.2 Hard to fill Occupations by job-specific reasons for difficult in hiring

Further, Employers were asked to give job-specific reasons why hiring was difficult. Table 3.11 shows job-specific reasons why hiring was difficult. While "lack of required skills" and "demand for higher wages" were the major reasons cited for difficulty in hiring across top ten hard to fill occupations, "no or few applicants" was the main reason why employers found it difficult to hire university and post-secondary teachers/lecturers.

Table 3.11: Distribution of occupations by Main Reason for Difficulty in Hiring

Occupation	Main Reason for Difficulty to Hire	Pecent			
Primary Educ	Primary Education Teachers				
	Applicants demanded wages higher than we could offer	45.2			
Secondary and	l Technical Institute Teachers and Instructors				
	Applicants lacked required skills	32.5			
Accountants A	auditors and Tax Assessors				
	Applicants demanded wages higher than we could offer	60.2			
Motor Vehicle	e Drivers				
	Applicants lacked required skills	54.0			
Business Servi	ce Agents				
	Applicants lacked required skills	36.7			
University and	l Post-secondary Teachers/Lecturers				
	There were no or few applicants	49.7			
Pharmaceutic	al Officers				
	Applicants lacked required skills	53.3			
Civil Engineer	s				
	Applicants demanded wages higher than we could offer	92.9			
Computing Pr	ofessionals				
	Applicants lacked required skills	69.9			
Hairdressers Barbers Beauticians and Related Workers					
	Applicants lacked required skills	100			

3.11.3 Hard to Fill Occupations due to lack of required skills

Further, Figure 3.9b shows hard to fill occupations in which "lack of required skills" was given as the main reason for difficulty in hiring. Hairdressers and barbers (100 percent), computing professionals (69.9 percent), Shop assistants (60.8 percent), building trade workers (59.4 percent), Drivers (54 percent) and pharmaceutical officers (53.3 percent) were the occupations where lack of required skill was a major hindrance to fill the vacancies.

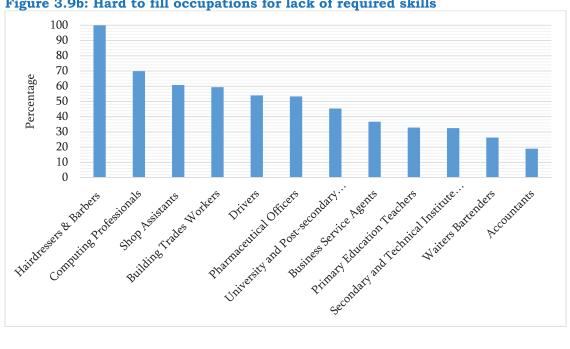


Figure 3.9b: Hard to fill occupations for lack of required skills

3.11.4 Hard to Fill Occupations by Type of Skill Job Applicants Lacked

As a follow up, Employers with skill-shortage vacancies were read a list of skills and asked, for each occupation in which they reported skill-shortage vacancies, which skills were lacking. The specific skills that employers perceive to be lacking among applicants can be broadly grouped into three categories, as indicated in Box 1.

Box 1: Skills Categorization



- · Reading and understanding instructions, guidelines, manuals or reports
- · Writing instructions, guidelines, manuals or reports
- · More complex numerical or statistical skills
- Communication skills
- · Analytical skills, critical & logical thinking
- Problem solving skills (context specific)
- · Ability and willingness to learn new things
- Communicating in a foreign language

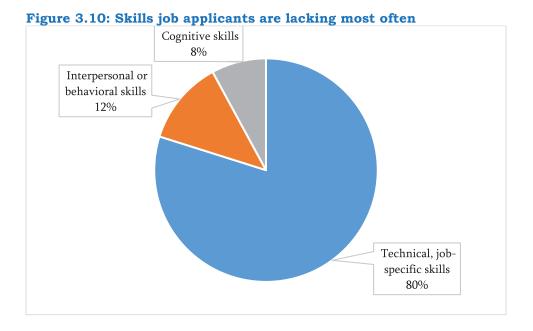


- · Computer literacy/basic IT skills
- · Advanced IT skills
- · Basic technical skills specific to the job
- · Advanced technical skills specific to the job
- Manual dexterity for example, to mend, repair, assemble, construct or adjust things
- · Sales skills
- · Customer handling skills
- · Managerial & planning skills



- Motivation, initiative and pro-activity
- Work ethics/attitude towards the job (commitment, reliability, diligence, honesty)
- Teamwork skills
- · Ability to work independently, self-management
- Instructing or training people
- · Leadership skills managing or motivating other staff
- · Adaptability to new tasks, flexibility
- Emotional intelligence ability to understand and manage own emotions, and those of the people around
- Conflict resolution skills ability to successfully resolve conflict

As shown in Figure 3.10, the survey revealed that 80 percent of employers did not fill the vacancies due to job seekers lacking technical skills, while only 8 percent of employers reported lack of cognitive skills. While development of adequate occupation- specific skills is a challenge for the TVET system, development of adequate socio- behavioral and cognitive skills is a challenge for the general education system.



3.11.5 Hard to Fill Occupations by Occupation Specific- Skills lacked by applicants

Further, analysis shows that larger proportions of occupations reported lack of Job specific technical skills except Hairdressers and Barbers Beauticians occupational category that showed applicants lacked Interpersonal and behavioral skills, while Business service agents occupational category showed cognitive skills as lacked by applicants as shown in Figure 3.11.

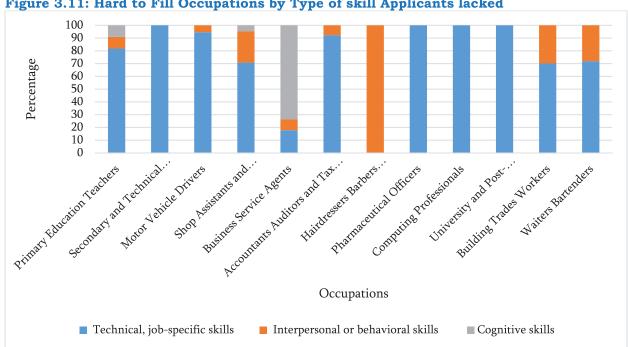


Figure 3.11: Hard to Fill Occupations by Type of skill Applicants lacked

3.12 Current Vacancies

In identifying vacancies that exist within enterprises, firms were asked to give the number of vacancies and for how long the vacancies have been open. These were vacancies that were active at the time of the survey period.

3.12.1 **Current Vacancies in Professional Occupations**

Further, analysis shows that among professionals, larger proportions of current vacancies reported were among Secondary and Technical Institute Teachers and Instructors, Accountants, Computing Professionals and Nurses as shown in Figure 3.12.

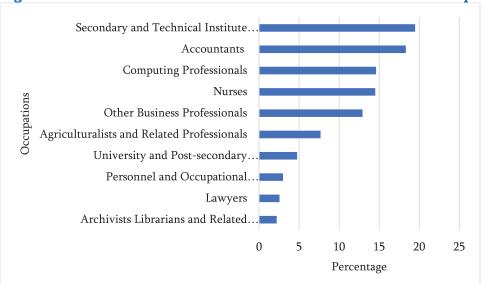


Figure 3.12: Distribution of current vacancies in Professional occupations

3.12.2 Current Vacancies in Technicians Occupations

Figure 3.13 shows proportion of vacancies in that were reported in technicians' occupations. Business and Public Service Middle Level Personnel and Business Service Agents occupations constituted more than 60 percent of all the vacancies that occurred in Technician occupations.

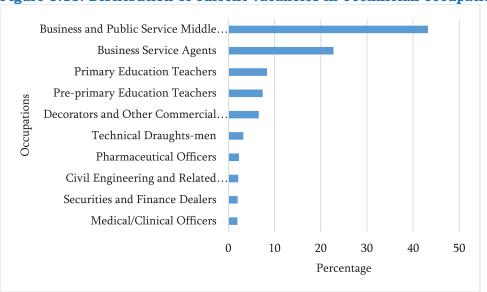
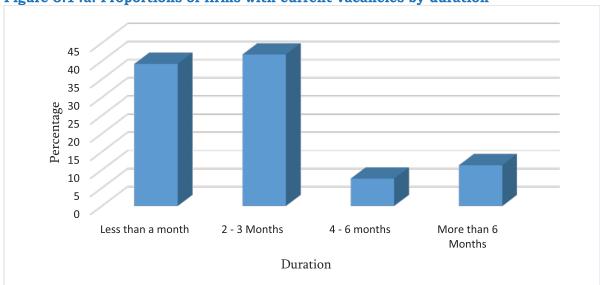


Figure 3.13: Distribution of current vacancies in Technician occupations

3.12.3 Duration of current Vacancies

Figure 3.14a and Figure 3.14b shows proportion of current vacancies by duration and occupation. The survey revealed that approximately 86 percent of open vacancies were between less than one month to 3 months, while only 13 percent of all vacancies were open for a period of more than 4 months.



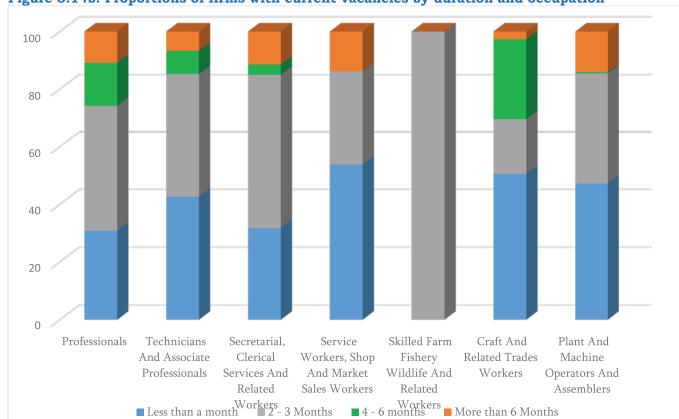
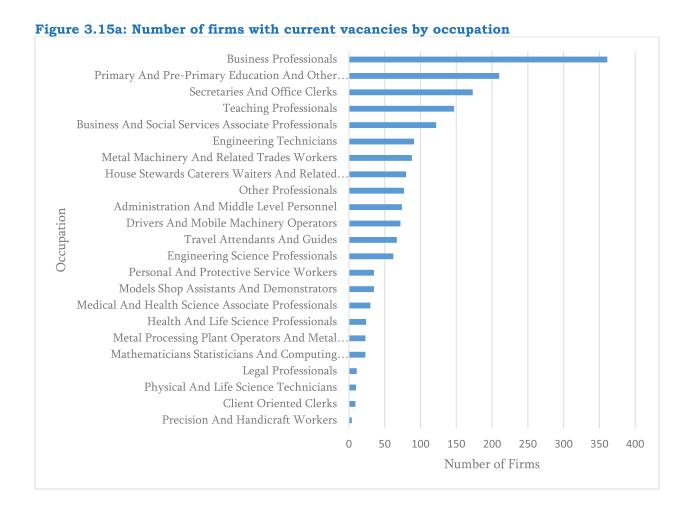


Figure 3.14b: Proportions of firms with current vacancies by duration and occupation

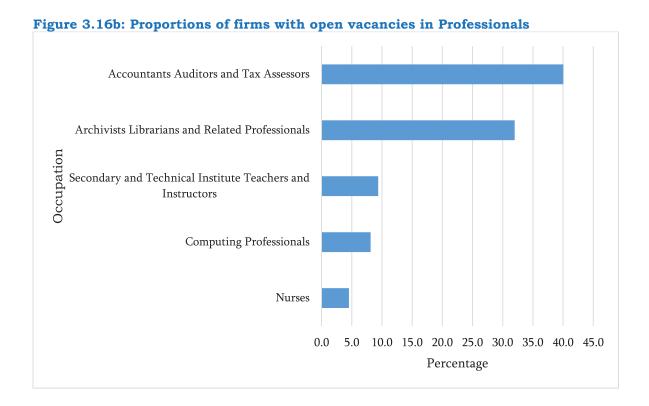
3.12.4 Duration of Current Vacancies (4 Months and above)

Further, analysis of duration of current vacancies (4 months and above) by occupation as reported by firms is depicted in Figure 3.15a.



3.12.5 Duration of Current Vacancies (4 Months and above) in Professional Occupations

Figure 3.15b depicts the proportion of vacancies that were open for 4 months above in professionals' occupations. Accountant and Archivists occupations had most vacancies (more than 60 percent) that were open for 4 months and above than any other professional occupation.



3.12.6 Duration of Current Vacancies (4 Months and above) in Technician Occupations

Figure 3.15c depicts the proportion of vacancies that were open for 4 months above in Technician occupations as reported by the Employers. Most vacancies within primary teachers and business service agents occupations took longer than 4 months to be filled.

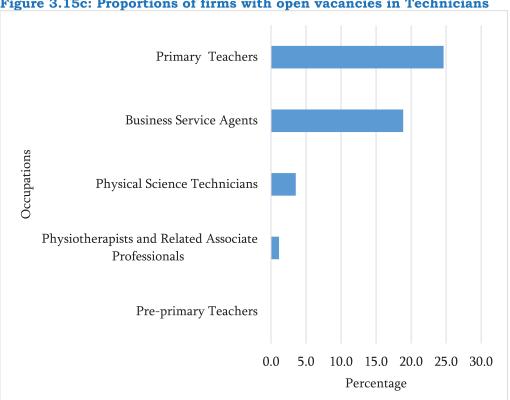
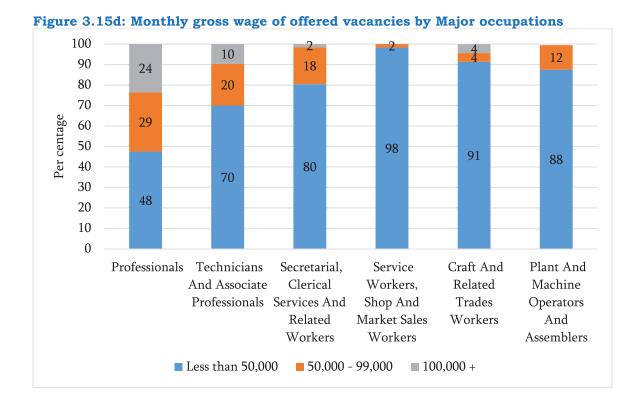


Figure 3.15c: Proportions of firms with open vacancies in Technicians

3.12.7 Wages and Salaries offered in Job Vacancies in Formal Sector

Information of the number of vacancies in an economy is necessary, but not enough to determine if skill mismatches can be reduced. Jobs can be available; however, the wages of those jobs might not be high enough to create a labour supply to satisfy labour demand. This variable helps to investigate whether the vacancies openings can offer wages to attract workers and the unemployed into formal jobs.

As shown in Figure 3.15d, vacancies for most professionals (over 50 percent of firms reported) attract salaries above KSh 50,000 of which 24 percent attract salaries of KSh 100,000 and above. On the other hand, vacancies for all other occupations (at least 70 percent) attract salaries of less than KSh 50,000.



3.13 Recruitment Channels

Employers were asked which was the most frequent channel used to recruit new staff. The survey results revealed that the most common recruitment method was by Informal channels (71.2 percent) as shown in Figure 3.16. These informal channels include personal contacts, recommendations, social media, company websites among others.

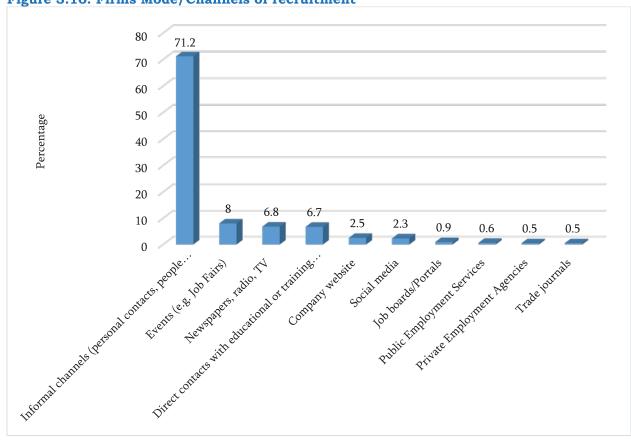


Figure 3.16: Firms Mode/Channels of recruitment

3.14 Typical Earnings by occupation (Median and mean earnings)

Table 3.12 shows monthly typical earnings of formal sector workers by main occupations as reported by firms during ESOS Survey. Median earning is the earning available to the occupational category in the middle of the earning distribution thus is more representative of the typical earnings of occupations than mean (Average) as the mean is usually skewed upwards by a small number of employees with bigger earnings. In this section, median earning is used to analyze typical earnings of workers in the core occupations.

Typical median earnings range from as low as KSh 12,000 for Waiters to as high as KSh 50,000 for personnel and occupational professionals, followed by computing professionals and accountants with median earnings of KSh 45,000 and KSh 43,000 respectively.

Table 3.12: Core Occupations by Typical earnings

Occupation	Mean earnings	Median earnings
Accountants	65,400	43,660
Drivers	30,860	25,000
Cooks	25,184	15,000
Shop Assistants	32,625	16,800
Secretaries Stenographers and Typists	37,683	25,000
Business Service Agents	47,487	25,000
Information Clerks	33,545	25,000
Cashiers Tellers and Related Clerks	38,218	22,000
Waiters	18,892	12,000
Primary Education Teachers	39,883	20,000
Business and Public Service Middle Level Personnel	51,574	30,000
General Office Clerks	44,018	25,000
Protective Service Workers	26,702	19,250
Secondary and Technical Institute Teachers and Instructors	46,683	25,000
House Stewards and Housekeepers	39,746	20,000
Numerical Clerks	51,575	30,000
Personnel and Occupational Professionals	74,896	50,000
Material Recording and Transport Clerks	45,020	26,000
Computing Professionals	80,526	45,000
Health Professionals	74,097	39,000

3.15 Key Employability Skills

This section shows the importance attached to different labour market skills by Kenyan employers. Skills that employers deem the most important are referred to as key employability skills. Key employability skills are the skills that job applicants are required to possess in order to be hired and to retain the job. The key employability skills differ by occupation and by industry of employment.

During the survey, employers were asked to rank skills of workers they needed for effective performance of their enterprises by importance.

3.15.1 Key Employable skills for Professionals

Employers considered the top five most important skills among professionals (High skilled workers) as communication skills, work ethics, managerial and planning skills, customer handling skills, and reading and understanding instructions, planning skills as shown in Figure 3.17a.

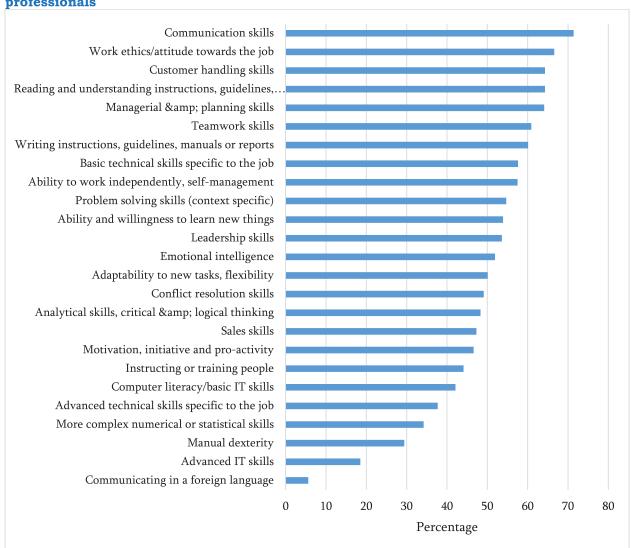


Figure 3.17a: Distribution of employers indicating the most important skill among professionals

3.15.2 Key Employable skills for Middle Skilled Workers (Technicians)

Employers consider the top five most important skills among Technicians (Middle-Skilled Workers) as communication skills, work ethics, customer handling skills, teamwork and ability to work independently as shown in Figure 3.17b.

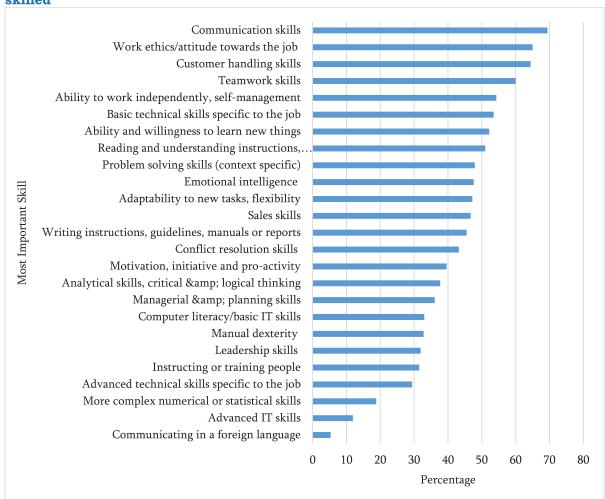
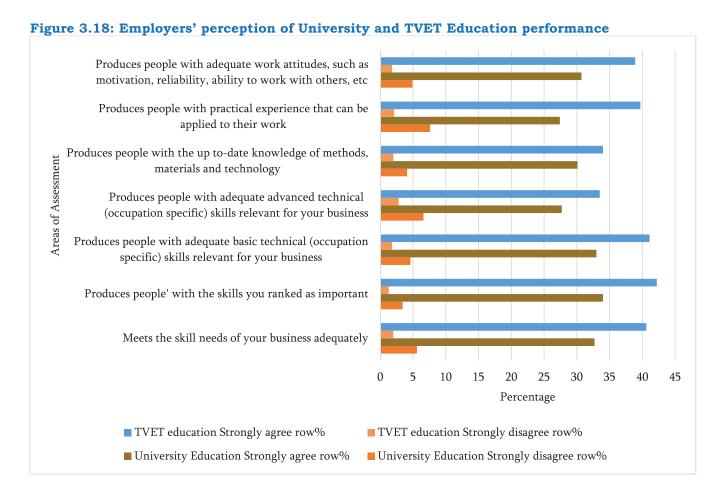


Figure 3.17b: Distribution of employers indicating the most important skill among middle skilled

3.16 Employers' Perception of Training and Education

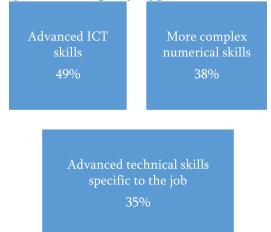
Employers were asked to give opinion on quality and relevance of University Education and TVET education to labor market needs. In the 2022 ESOS, in all the areas, employers perceived TVET institutions to produce graduates with high employability skills as compared to university institutions as shown in Figure. 3.18.



3.17 Skill Gaps

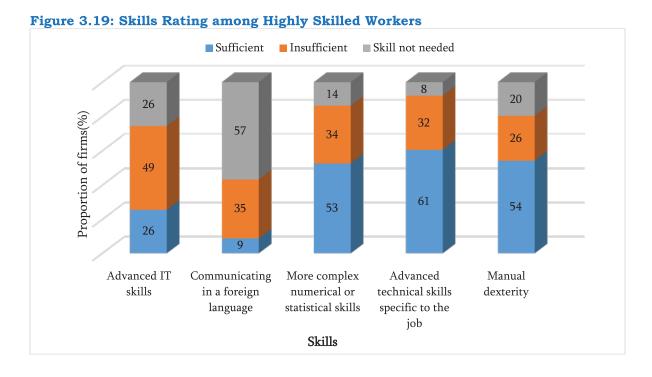
This section presents the set of skills that, in the opinion of employers, workers most often lack. These are skills that are insufficient among the highly skilled workers (Professionals) and middle level workers (Technicians) and thus in need of improvement. As shown in Box 2, employers indicated advanced ICT skills (49 percent), more complex numerical skills (38 per cent) and advanced technical skills specific to the job (35 percent) as the set of skills that need improvement across all occupational categories.

Box 2: Severity of Skill Gaps by Type of Skills



3.17.1 Skill Gaps among High Skilled Workers (Professionals)

Among high skilled workers (Professionals), 49 percent of employers indicated advanced IT Skills, 35 percent indicated communicating in foreign language, 34 percent indicated more complex numerical skills, 32 percent indicated advanced technical specific skills and 26 percent manual as the most insufficient skill among the highly skilled workers as shown in Figure 3.19. However, a majority of employers (57 percent) indicated that communicating in foreign languages is a skill that is not needed even though some employers indicated the skill as insufficient among high skilled workers.



3.17.2 Skill Gaps among Middle Skilled Workers (Technicians)

Among middle skilled workers (Technicians), 49 percent of employers indicated advanced IT skills, 42 percent indicated more complex numerical skills, 38 percent indicated advanced technical specific skills and 33 percent indicated communicating in foreign language as the most insufficient skill among the highly skilled workers as shown in Figure 3.20. However, a majority of employers (61 percent) have indicated that communicating in foreign languages is a skill that is not needed even though some employers indicated as the skill as insufficient among middle level workers.

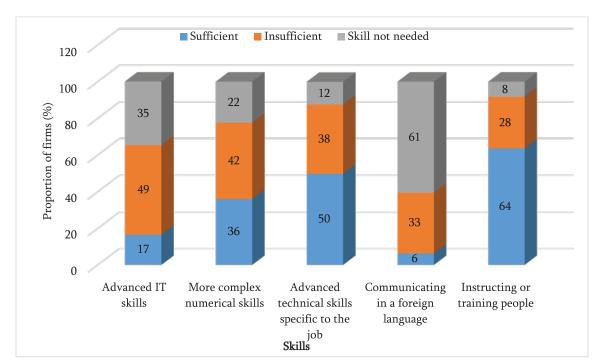


Figure 3.20: Skills Rating among Middle Skilled Workers

3.18 Skills development and training

Skills development and training improves employability of workers, productivity of enterprises and inclusiveness of economic growth. Skills development is also essential to address the opportunities and challenges to meet new demands of changing economies and new technologies in the context of globalization.

3.18.1 Training days

Overall, 34.2 percent of firms reported trainings took 1-3 days (34.2 percent), followed by 1-2 weeks (25.9 percent) and 4-5 days (23 percent). Only 6.9 percent of firms reported training 3 months and above as shown in Figure 3.21.

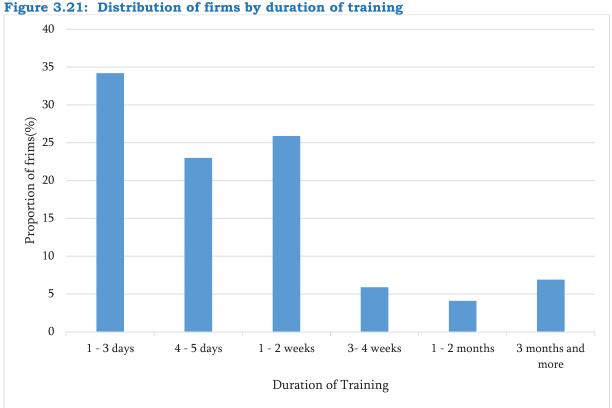


Figure 3.21: Distribution of firms by duration of training

Figure 3.22 shows duration of training by broad industry. Employers in agriculture sector provided the training that lasted for 4 to 5 days (25.4 percent), followed by 1-2 weeks (23.3 percent) and 1-3 days (21.3 percent) over the last 12 months. Employers within the industry sector provided training that took 1-3 days (31.5 percent), followed by 1-2 weeks (23 percent) and 4-5 days (20.9 percent). Trainings that took 3 months and above were in agriculture (11.5 percent), industry (8.6 percent) and services (5.7 percent)

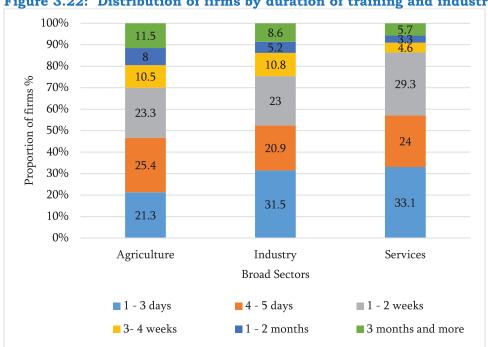


Figure 3.22: Distribution of firms by duration of training and industry

3.18.2 Content of training

The employers were asked about the content of the longest training. As shown in Figure 3.23, most employers (40 percent) trained on basic job specific skills and advanced job specific skills at (37.5 percent).



Figure 3.23: Distribution of firms by content of longest training

3.18.3 External/Internal training

Figure 3.24a and 3.24b shows the type of training provided by industry. External training providers accounted for the largest proportion at 51.2 of which 57.0 percent was provided by the government.



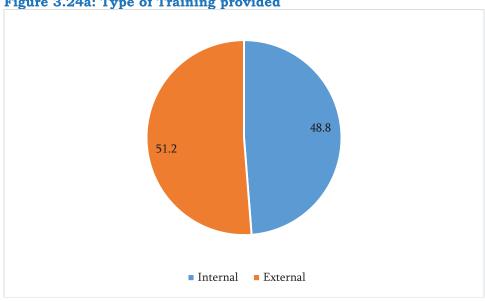
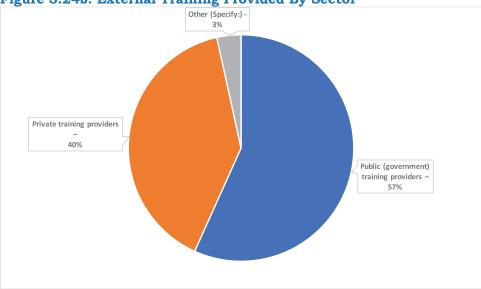


Figure 3.24b: External Training Provided By Sector



Mode of Training 3.18.4

The dominant mode of collaboration with training providers as shown in Figure 3.25. The survey findings indicate 45.7 percent of the enterprises preferred staff capacity building as the dominant mode of training. This is followed by mentorship and coaching at 19.1 percent and dual training at 9.3 percent.

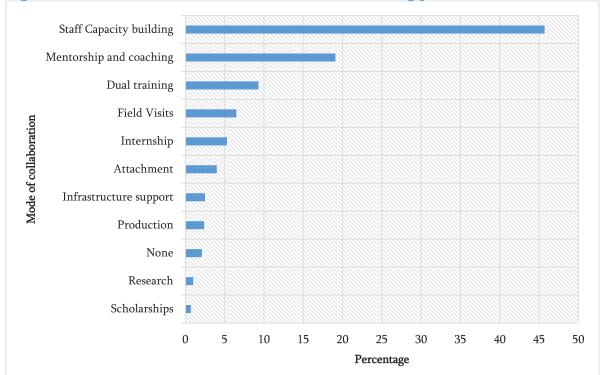


Figure 3.25: Dominant mode of collaboration with training providers

3.19 Covid Effect

The impact of the pandemic and containment measures led to a severe contraction in employment as many people were laid off. The survey revealed that 83.2 percent of the affected workers were unskilled as shown in Figure 3.26a

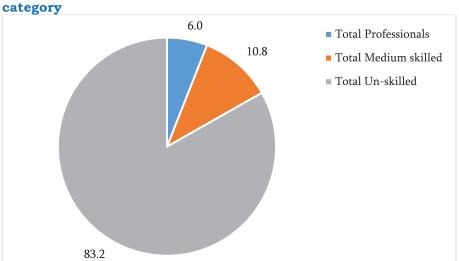


Figure 3.26a: Distribution of Employees Dismissed due to covid by Broad Occupation category

Further analysis of employees dismissed due to covid by broad occupation category (Figure 3.26b) shows that male in both professional and middle skilled occupational category were highly affected at 66.0 percent and 63.6 percent, respectively.

Figure 3.26b: Distribution of Employees Dismissed due to covid by Broad Occupation category and sex (excluding unskilled workers)



Chapter 4: Conclusion

4.1 Firmographics/Firm profiles/Enterprise profile

- i. The magnitude of Enterprises and Business ownership showed that there were approximately one hundred and fifty thousand (150,000) formal Sector Enterprises at the time of the survey. Most of these enterprises are concentrated in the service sector (That includes Trade, Education, Finance, Transport, Health, Hospitality, etc.) and accounted for 84 percent of the total enterprises. Industry and formal agriculture sectors accounted for 13 and 3 percent, respectively, during the same period.
- ii. Majority of formal enterprises are micro-enterprises by size of employment (employing less than 10 workers) in all the sectors of the economy in Kenya.

4.2 Formal Sector Employment

- i. Overall, Service Sector employs more workers than formal agriculture and industry sectors combined.
- ii. For every one female employee there are approximately two male employees in all formal sector employment.
- iii. The majority of workers in the formal sector are regular employees
- iv. Regular workers in the formal sector are likely to be more educated than casual workers.

4.3 Employment Changes

- i. Fewer proportions of enterprises indicated increases/decreases in employment in all industries.
- ii. Employment increased across occupations in most enterprises. Employment growth was the strongest among protective service workers, university and post-secondary teachers, business service agents and nurses' occupations.
- iii. Employment declined among Wood products machine operators, other teachers and instructors; and waiters' occupations

4.4 Hiring Occupations

- i. Ones chances of getting a job also depend on the hiring pattern. The more enterprises hire workers in certain occupations, the better the employment chances of workers in those occupations. By this metric, primary teachers' drivers and business service agents faced by far the best employment chances.
- ii. It was particularly difficult to hire workers with high skills (professionals and technicians) than workers with low skills (Plant and Machine Operators).

- iii. Technical-job specific skills were lacking among all job applicants in all occupations.
- iv. Informal channels (such as personal contacts, people recommended by other employees, among others) is the preferred method of recruitment

4.5 Key Employability Skills

- i. Employers considered the top five most important skills among professionals (High skilled workers) as communication skills, work ethics, managerial and planning skills, customer handling skills, and reading and understanding instructions, planning skills
- ii. Employers considered the top five most important skills among Technicians (Middle-Skilled Workers) as communication skills, work ethics, customer handling skills, teamwork and ability to work independently

4.6 Skill gaps

- i. Advanced ICT skills, more complex numerical skills, and advanced technical skills specific to the job are the set of skills that need improvement across all occupational categories.
- ii. Advanced IT Skills, more complex numerical skills, advanced technical specific skills are the most insufficient skill among the highly skilled
- iii. Advanced IT Skills, more complex numerical skills, advanced technical specific skills are the most insufficient skill among the among middle level workers.

Appendix

Appendix 1 – Questionnaires



KENYA ENTREPRISE SKILLS AND OCCUPATIONS SURVEY

2022

QUESTIONNAIRE

BACKGROUND

1 Purpose of the Survey

The purpose of this survey is to obtain information to help understand the skills that are being used by employers in KENYA, what they look for when hiring and how skills affect training and compensation. The data will also be used for research, policymaking and business planning.

2 Collaborating Institutions

Ministry of Labour and Kenya National Bureau of Statistics (KNBS) are jointly conducting the Kenya Skills and Occupations Survey.

3 Respondent

The respondents are expected to be the Chief Executives, Human Resource Manager, Finance Managers, Accountants or any other person who is familiar with the Enterprises' Human Resource.

4 Confidentiality

Information provided in the questionnaire by individual production houses/enterprises will be treated as confidential and used strictly for statistical purposes. The data/information collected will only be published in aggregate form. The staff involved are under oath not to disclose any information to a third party. Confidentiality is

5 Queries

For more information contact the following office;

Principal Secretary, State Department for Labour

AG, Director, NHRPD
State Department for Labour
NSSF building, Upper Hill
Tel. No.: 020-2729800 Ext 4401

Director, Production Statistics Kenya National Bureau of Statistics Real Towers, Upper Hill, Hospital Road, 6th Floor Tel. No.: 020-2911000 Ext 6001

Email Address:directorproduction@knbs.or.ke

Introduction

Hello, my name is []. I am visiting you this morning/afternoon/evening in regards to Kenya Skills
and Occupations Survey that is being cor	nducted throughout the country. The survey is a collaboration between the Kenya
National Bureau of Statistics and the Mir	nistry of Labour and it seeks to collect information on the skills that are being used
by employers in KENYA , what they look t	for when hiring and how skills affect training and compensation. The information
gathered here will help the review and f	formulation of policies and programs to improve firms' access to skills. Your firm
has been randomly selected, along with	several hundred others, to provide a representative sample of all employers. The
information you provide is strictly confid	dential. Your firm's name and data will be anonymized and will never be

I would like to begin by asking a few background questions.

- 1 Yes, You can Proceed
- 2 No, Not Interested

MODULE A: BASIC INFORMATION

A.1	What is your job title	(main resp	onsibil	itv)?		
	Human Resource (HR) Manager 1					
	Owner/Proprietor			2		
	President/ Vice F	resident/	Chief E	xecutive Officer	3	
	Partner				4	
	Director				5	
	General Manager Finance Officer				6 7	
	Manager					
	Other (Please spe	cify)	9	
				,		
A2 .	Enter the GPS coo	rdinates		1		
A2.1	Latitude					
A2.2	Longitude					
A 3	Record the Name a	and codes	s of the	e listed variable	s of the	entity
		Name	Code			
A3.1	County					
A3.2	Street name					
A3.3	Building name and fl	oo <u>r</u>	~			
A3.4	Town					
A3.5	Postal address					
A3.6	Postal code					
A3.7	Telephone number					
A3.8	Mobile phone number	er				
A3.9	Email					
1	Website					
A4	What year was your F			gistered in the [C	OUNTRY]?	
\ _^ =	IF DON'T KNO			-i- operations in		12
A5	What year did your Fi IF DON'T KNO			gin operations in	[COOI <u>VINI</u>];
		,				
A6	What is the legal state	us of this fi	irm?			
	SOLE PROPRIETOR	RSHIP			1	
	PARTNERSHIP				2	
	FAMILY ASSOCIAT				3	
	LIMITED LIABILITY CORPORATION LIS				<u>4</u>	
	PART OF MULTI-N			CHANGE	6	
	COOPERATIVE	, (11011, (21			7	
	OTHER (SPECIFY_)	9	

Α7	Which of the following describes the largest shareholders in your firm?				
			% Shares		
		PRIVATE DOMESTIC INDIVIDUALS, COMPANIES OR 01	_ _ _		
		PRIVATE FOREIGN INDIVIDUALS, COMPANIES OR 02	_ _ _		
		GOVERNMENT OR STATE 03	_ _ _		
A8.1	Descril	oe the MAIN economic activity of the firm.			
A8.2		Use the following list to identify the broad sector of your economic a	ctivity:		
	.A	Agriculture, forestry and fishing	01		
	В	Mining and quarrying	02		
	С	Manufacturing	03		
	D	Electricity, gas, steam and air conditioning supply	04		
	Е	Water supply; sewerage, waste management and remediation activities	05		
	F	Construction	06		
	G	Wholesale and retail trade; repair of motor vehicles and motorcycles	07		
	Н	Transportation and storage	08		
	1	Accommodation and food service activities	09		
	J	Information and communication	10		
	K	Financial and insurance activities	11		
	L	Real estate activities	12		
	М	Professional, scientific and technical activities	13		
	N	Administrative and support service activities	14		
	O	Public administration and defence; compulsory social security	15		
	Р	Education	16		
	Q	Human health and social work activities	17		
	R	Arts, entertainment and recreation	18		
	S	Other service activities	19		
	Т	Activities of households as employers; undifferentiated goods- and			
	'	services-producing activities of households for own use	20		
	U	Activities of extrateritorial organisations	21		

MODULE B. Total employment by category of workers:

Now I would like to ask questions about the workforce at this firm. Please think about all the workers currently engaged here even if not formally employed by your firm unpaid workers, etc). Exclude workers employed by another enterprise (outsourced from another firm) who are assigned to work

A. Number of Employees

		Of Which:	Of Which: Non-
	Total	Female	Kenyan
	B1	B2	В3
i) Number of Regular Employees			
ii) Number of Casual Employees			
iii) Working Proprietors/Partners, Working Directors			
Total			

Now I would like to ask questions about the typical earnings of employees at this firm. What was the typical monthly earnings of regular and Casual as at the end of last month

	Male	Female
	B4	В5
i) Regular Employees		
ii) Casual Employees		

	i) Number	ii) Number	iv) Working
	of Regular	of Casual	Proprietors/Partners,
Education Attainment	Employees	Employees	Working Directors
1 - Primary or Less			
2 - Secondary			
3 - Vocational (Artisan, Crafts, NSC1, NVC2, GTT3)			
4 - Tertiary (Diploma level)			
5 - University			

- 1 National Skills Certificate
- 2 National Vocational Certificate
- 3 Government Trade Test

MODULE C. List of occupations within the firm/organization

Identifying core occupations

Question: What have been the occupations with most employees in your company in the past 12 months?
Please list the main occupations in which workers are employed in your firm, and then provide the number of employees in each occupation.

C1. Occupation number	C2. Detailed occupation description	C3. Occupation Code (3-digit KNOCS)*	C4. All employees	C5. Of which: Women	C6. What was the typical monthly earnings as at the end of last month
	All occupations (total employment)				
	Main occupations				
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Note to enumerators: First ask about Highly Skilled workers, then about Medium Skilled workers, and finally about Low Skill.

Medium Skilled workers: clearical, sales, service workers etc

Low Skilled (Un-Skilled): Machine operators, Craft men, Drivers etc

MODULE D. Employment and employment changes by occupation, earnings and Educatio

		-		
D1	You stated you have {Insert answer from Question B1 for total employees} or Greater than 12 months ago Same as 12 months ago Smaller than 12 months ago Don't know	urrent emplo 1 2 3 99	>> Doyees. Is this curr >> D2 >> D3 >> D2 >> D3	rent number:
D2	What was the total number of employees in your FIRM 12 months ago?			
D3	Please, list all the occupations in which employment in your firm INCREASE occupation with the largest increase]:	D in the last	12 months [Start	ing with the
No.	Occupation description	KNOCS code (4- digit)	How many employees worked in this occupation 12 month ago?	How many employees work in this occupation now?
1 2 3 4 5 6				
D4	Please, list all the occupations in which employment in your firm DECREASE occupation with the largest decrease]:	E D in the last	12 months [Star	ting with the
No.	Occupation description	KNOCS code (4- digit)	How many employees worked in this occupation 12 month ago?	How many employees work in this occupation now?
1 2 3 4 5			Ü	
6		1		

Impact of COVID on employment.

D5_1. Did COVID 19 pandemic affect your decision to dismiss workers or cut jobs?

D5_2. If so, how many workers were dismissed (jobs were cut) due to the COVID pandemic?

Broad occupational groups	Total	Of Which: Female
Highly Skilled workers		
Medium Skilled workers		
Low Skilled workers		
Total		

MODULE F. Hiring workers

Identifying obstacles firms face when trying to hire workers and fill job vacancies

Question F1: Have you tried to hire workers in the last 12 months?

Yes go to next question
No skip next question

Don't know 99

Question: Please list occupations in which your enterprise tried to hire employess in the last 12 months.

Enumerator:

 $The \ respondent \ can identify \ maximum \ of \ 6 \ occupations, \ starting \ with \ the \ occupation \ with \ the \ largest \ number \ hired$

No.	F2. Occupations in which enterprise tried to hire employees in the last 12 months	F3. KNOCS 4-digit code	F4. Number of workers hired	F5. How easy /difficult was it to hire workers in this occupations? 1 – Very easy 2 – Easy 3 – Neither easy nor hard 4 – Difficult 5 – Very difficult	was the main reason? (indicate only one)	F7. If applicants lacked required skills (2), what kind of skills they lacked? [Enumerator: Use codes shown below]
1 2 3 4 5 6						

 $Note: Vacancies\ are\ unfilled\ job\ openings\ for\ jobs\ that\ can\ be\ offered\ within\ two\ weeks,\ and\ for\ which\ the\ firm\ is\ currently\ actively\ recruiting.$

[Enumerator: Use occupation numbers from the Listed Occupations in Module D]

	F8. Occupation description	F9. KNOCS	number of vacancies	F11. For how long the vacancy has been open (number of weeks)	F12. What is the monthly gross wage offered for this position? (provide range in KSh)*
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

F13. Which are the three most frequently used channels of recruitment?

Source	Channel
1 st most important	
2 nd most important	
3 rd most important	

Codes for Question F6:

- 1-There were no or few applicants
- 2 Applicants lacked required skills
- 3 Applicants demanded wages higher than we could offer
- 4 Applicants did not like working conditions
- 5 Applicants lacked required work experience

Codes for Question F7:

- 1 Technical, job-specific skills
- 2 –Interpersonal or behavioral skills (including attitude towards the job)
- 3 Cognitive skills (communicating clearly, understanding questions, thinking logically)

Codes for Question F12:

* Show a showcard with salary/wage ranges.

1 5000 - 9999

2 10000 - 14,999

3 15,000 - 19,999

4 20,000 - 24,000

5 24,001 - 29,999

6 30,000 - 34,999

7 35,000 - 39,999

8 40,000 - 44,999

9 45,000 - 49,999

10 50,000 - 59,999

11 60,000 - 69,999

12 70,000 - 99,999

13 100,000 and Above

Codes for Question F13:

- 1 Public Employment Services
- 2 Private Employment Agencies
- 3 Job boards/Portals
- 4 Social media
- 5 Company website
- 6 Trade journals
- 7 Direct contacts with educational or training institutions (schools, universities, training centers, etc.)
- 8 Informal channels (personal contacts, people recommended by other employees, etc.)
- 9 Events (e.g. Job Fairs)
- 10 Newspapers, radio, TV

MODULE H. Importance of different skills Identifying key employability skills

오

Yes/No	yes =1	No / Not Apllicable=0	
ories do you have	_		_
From the listed occupations what broad categories do you have	Highly Skilled workers	Medium Skilled workers	Low Skilled workers

H1: How important are these skills for the effective performance of your firm/organization?

			П					:			
			Highly Skill	Highly Skilled workers (if H0==1)	f H0==1)		•	Medium	Medium Skilled workers (if H0==1)	rs (if H0==1)	Ī
Skill Code	e Skill list	Not	Slightly	Moderately	1 + 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very	Not	Slightly	Moderately	- t	Very
		important = 1	important = 2 $important = 3$	important = 3	Important = 4	important = 5	Importan t = 1	important = 2	important = 2 $important = 3$	Important = 4	important = 5
	Reading and understanding instructions, guidelines, manuals										
11	11 or reports										
12	12 Writing instructions, guidelines, manuals or reports										
15	13 More complex numerical or statistical skills										
14	4 Communication skills										
15	Analytical skills, critical & logical thinking										
16	16 Problem solving skills (context specific)										
1,	17 Ability and willingness to learn new things										
18	18 Communicating in a foreign language										
21	Motivation, initiative and pro-activity										
	Work ethics/attitude towards the job (commitment, reliability,										
22	2 diligence, honesty)										
23	Teamwork skills										
24	24 Ability to work independently, self-management										
25	25 Instructing or training people										
26	26 Leadership skills - managing or motivating other staff										
27	27 Adaptability to new tasks, flexibility										
	Emotional intelligence - ability to understand and manage own										
28	emotions, and those of the people around										
	Conflict resolution skills – ability to successfully resolve										
25	29 conflict										
31	Computer literacy/basic IT skills										
37	32 Advanced IT skills										
35	33 Basic technical skills specific to the job										
34	34 Advanced technical skills specific to the job										
	Manual dexterity – for example, to mend, repair, assemble,										
35	construct or adjust things										
36	36 Sales skills										
3,	37 Customer handling skills										
38	38 Managerial & planning skills										

H2: Among the skills listed, what are the three skills of workers in skilled occupations (managers and Highly Skilled workers) that are most important?

[Report 2-digit skill number in SHOWCARD.

Highly Skilled	Skill
The first most important skill	
The second most important skill	
The third most important skill	

H3: Among the skills listed, what are the three skills of workers in semi-skilled occupations (clerical, service, sales and skilled Manual workers (Un-Skilled)) that are most important?

[Report 2-digit skill number in SHOWCARD]

Medium Skilled workers	Skill
The first most important skill	
The second most important skill	
The third most important skill	

MODULE K. Skill gaps

Determining to what extent workforce skills are sufficient for effective performance of businesses

K1. Question: To what extent the staff has a level of skills that is adequate for the effective performance of your firm/organizatio

Skill		Highly Skil	led workers (if H0==1)	Medium	Skilled work	ers (if
code	Skill list	Sufficient	Insufficient	Skill not needed	Sufficient	Insufficient	Skill not needed
	Reading and understanding instructions,						
11	guidelines, manuals or reports						
12	Writing instructions, guidelines, manuals or reports						
	More complex numerical or statistical skills						
14	Communication skills						
15	Analytical skills, critical & logical thinking						
16	Problem solving skills (context specific)						
17	Ability and willingness to learn new things						
18	Communicating in a foreign language						
21	Motivation, initiative and pro-activity						
	Work ethics/attitude towards the job						
22	(commitment, reliability, diligence, honesty)						
23	Teamwork skills						
24	Ability to work independently, self-management						
25	Instructing or training people						
	Leadership skills - managing or motivating other						
26	staff						
27	Adaptability to new tasks, flexibility						
	Emotional intelligence - ability to understand and						
	manage own emotions, and those of the people						
28	around						
	Conflict resolution skills – ability to successfully						
29	resolve conflict						
31	Computer literacy/basic IT skills						
32	Advanced IT skills						
33	Basic technical skills specific to the job						
	Advanced technical skills specific to the job						
	Manual dexterity – for example, to mend, repair,						
	assemble, construct or adjust things						
36	Sales skills						
	Customer handling skills						
38	Managerial & planning skills						

K2. Question: Among the skills listed what are the three skills of workers in Highly Skilled occupations that are most insufficient?

[Report 2-digit skill number in SHOWCARD]

Highly Skilled workers	Skill number
The first most insufficient skill	
The second most insufficient skill	
The third most insufficient skill	

K3. Question: Among the skills listed [SHOWCARD] what are the three skills of workers in medium Skilled occupations that are most insufficient?

[Report 2-digit skill number in SHOWCARD]

Medium Skilled workers	Skill number
The first most insufficient skill	
The second most insufficient skill	
The third most insufficient skill	

K4. Question. To what degree is the level of skills among your employees adequate to perform Tasks pertaining to the listed business activity

[Multiple answers; to report on a scale of 1 to 3, where 1 means 'sufficient' and 3 means 'significantly insufficient', or 9 'not applicable' when the company does not perform the business activity]

List of business activities	Sufficient	Insufficien	Not appli	cable
Production of goods	1	2	9	
Personal services	1	2	9	
Distribution and logistics	1	2	9	
Marketing, sales and after sales service	1	2	9	
Software development	1	2	9	
Data processing	1	2	9	
information and communication technology (ICT)	1	2	9	
Legal services	1	2	9	
Accounting and book-keeping	1	2	9	
Human resource management	1	2	9	
Financial management	1	2	9	
Engineering and related technical services	1	2	9	
Research and development (R&D)	1	2	9	
Other types of business activities	1	2	9	
Call centers and help centers	1	2	9	

K5. Question: Has your business been impacted by skill gaps in the following ways? [Multiple answers]

Impact of skill gaps	Yes, strongly impacted	Yes, somewhat impacted	Not impacted
Loss of business opportunities or orders to competitors	1	2	3
Lower profitability due to lower productivity or			
higher costs			
Lower quality of products or services			
Difficulties in introducing new working practices or			
products			
Outsourcing work			

MODULE J. Employers' assessment of University Education performance¹

Assessing quality and relevance of University Education to labor market needs

J_1_1: In the last three years did you hire graduates from University Education Institutions/programs?

Yes = 1

No =2

Don't know = 3

J_1_2: In your opinion, do you agree or disagree with the following statements describing the University Education in Kenya? Rate each statement on a scale of 1 to 5 using the categories on this scorecard.

[Note to enumerator: The question refers to all institutions providing technical and vocational education or training]

Trait:	Strongly disagree	Somewhat disagree	Neither agree, nor disagree	Somewhat agree	Strongly agree
Meets the skill needs of your business adequately	1	2	3	4	5
Produces people' with the skills you ranked as important	1	2	3	4	5
Produces people with adequate <u>basic</u> technical (occupation specific) skills relevant for your business	1	2	3	4	5
Produces people with adequate <u>advanced</u> technical (occupation specific) skills relevant for your business	1	2	3	4	5
Produces people with the up to-date knowledge of methods, materials and technology	1	2	3	4	5
Produces people with practical experience that can be applied to their work	1	2	3	4	5
Produces people with adequate work attitudes, such as motivation, reliability, ability to work with others, etc.	1	2	3	4	5

¹This section has to follow section E. on the importance of different skills because it asks if TVET produces people with skills ranked as most important.

Employers' assessment of TVET performance¹

Assessing quality and relevance of TVET to labor market needs

J_2_1: In the last three years did you hire graduates from TVET colleges/programs?

Yes = 1 No =2

Don't know = 3

J_2_2: In your opinion, do you agree or disagree with the following statements describing the technical and vocational education in Citizen? Rate each statement on a scale of 1 to 5 using the categories on this scorecard.

[Note to enumerator: The question refers to <u>all</u>institutions providing technical and vocational education or training]

Technical and vocational training system:	Strongly disagree	Somewhat disagree	Neither agree, nor disagree	Somewhat agree	Strongly agree
Meets the skill needs of your business adequately	1	2	3	4	5
Produces people' with the skills you ranked as important	1	2	3	4	5
Produces people with adequate <u>basic</u> technical (occupation specific) skills relevant for your business	1	2	3	4	5
Produces people with adequate <u>advanced</u> technical (occupation specific) skills relevant for your business	1	2	3	4	5
Produces people with the up to-date knowledge of methods, materials and technology	1	2	3	4	5
Produces people with practical experience that can be applied to their work	1	2	3	4	5
Produces people with adequate work attitudes, such as motivation, reliability, ability to work with others, etc.	1	2	3	4	5

1This section has to follow section E. on the importance of different skills because it asks if TVET produces people with skills ranked as most important.

MODULE M. Training

M1. IN THE LAST YEAR,	did the employ	vees in this esta	blishment receive	any training?

Yes – 1

No – 2

Don't know -- -9

M2. If YES: What is the typical duration of training your employees receive?

1 1 - 3 days

2 4 - 5 days

3 1 - 2 weeks

4 3-4 weeks

5 1 - 2 months

6 3 months and more

M3. What was the **content of the longest training?**

Training's content	A. Managers and Highly Skilled workers	B. Non- manual (Semi- Skilled) workers	C. Manual workers (Un-Skilled)
1 - ICT Skills (including use of computers, internet and basic software such as a word processor or spreadsheet			
2 - Occupation or job-specific training – basic job specific skills			
3 - Occupation or job-specific training – advanced job specific skills			
4 - Personal development training (including working in a team, time-use, leadership, handling stress, etc.)			
5 - Basic skills training (reading/ writing/math)			
6 - Other (Specify)			

M4. Was the training **internal**, provided by firm's managers, technical persons or peers, or **external**, provided by external training providers?

Internal - 1

External – 2

Don't know -- -9

M5. If training was **external**, it was provided by:

Public (government) training providers – 1

Private training providers –2

Other (Specify:) - 3

Don't know -- -9

M6. What is the dominant mode of collaboration with training providers?

A - Internship

B - Attachment

C - Field Visits

D - Dual training

E - Infrastructure support

F - Staff Capacity building

G - Scholarships

H - Research

I - Mentorship and coaching

J - Production

K - None

L - Others (Specify)

MODULE P. Additional information about the enterprise

The ensuing questions are to be asked only in the case of for-profit enterprises (Question A.2, Answer = 1))

P1. At the present time, does this establishment have its own website or social media page? Yes 1 No 2
DON'T KNOW (SPONTANEOUS) -9
P2. During the last three years, has this enterprise introduced new or improved products or services? Yes 1 No 2
DON'T KNOW (SPONTANEOUS) -9
P3. During the last three years, has this establishment introduced any new or improved technological process? (These include methods of manufacturing products or offering services)
Yes 1
No 2
DON'T KNOW (SPONTANEOUS) -9
P4. During the last fiscal year, did this establishment export products, directly or indirectly (sold domestically to
third party that exports products)?
Yes 1
No 2
DON'T KNOW (SPONTANEOUS) -9
P5. What is the estimated turnover of your firm?
KSh

Main Employability Skills

CODE	SKILL	TYPE
11	Reading and understanding instructions, guidelines, manuals or reports	Cognitive
12	Writing instructions, guidelines, manuals or reports	Cognitive
13	More complex numerical or statistical skills	Cognitive
14	Communication skills	Cognitive
15	Analytical skills, critical & logical thinking	Cognitive
16	Problem solving skills (context specific)	Cognitive
17	Ability and willingness to learn new things	Cognitive
18	Communicating in a foreign language	Cognitive
21	Motivation, initiative and pro-activity	Socio-behavioral
22	Work ethics/attitude towards the job (commitment, reliability, diligence, honesty)	Socio-behavioral
23	Teamwork skills	Socio-behavioral
24	Ability to work independently, self-management	Socio-behavioral
25	Instructing or training people	Socio-behavioral
26	Leadership skills - managing or motivating other staff	Socio-behavioral
27	Adaptability to new tasks, flexibility	Socio-behavioral
28	Emotional intelligence - ability to understand and manage own emotions, and those of the people around	Socio-behavioral
29	Conflict resolution skills – ability to successfully resolve conflict	Socio-behavioral
31	Computer literacy/basic IT skills	Technical
32	Advanced IT skills	Technical
33	Basic technical skills specific to the job	Technical
34	Advanced technical skills specific to the job	Technical
35	Manual dexterity – for example, to mend, repair, assemble, construct or adjust things	Technical
36	Sales skills	Technical
37	Customer handling skills	Technical
38	Managerial & planning skills	Technical

The list was developed drawing on the UK Employer Skills Survey, World Bank STEP Employer Surveys, and Linkedin

Appendix 2: Concepts and Definitions

This section provides the key concepts and definitions as used in this survey.

Employer/Enterprise/Firm

The terms; Employer, enterprise, and firm are used interchangeably to refer to an economic unit producing goods or providing services. They are entities under whose umbrella an establishment operates. Examples include factories, banks, kiosks, taxis, etc.

Formal Sector

The formal sector is an enterprise-based concept which describes enterprises that are registered by Business Registration Services (BRS), formally Registrar of Companies and are governed by statutory regulations.

Main Economic activity

The main economic activity is defined as the major undertaking which contributes the largest proportion of the total income or the most revenue for the enterprise.

The Kenya Standard Industrial Classification of All Economic Activities (KeSIC)

This refers to the latest Kenyan reference classification of productive activities. Its main purpose is to provide a set of activity categories that can be utilized for collection and reporting of statistics according to such activities. This is the domesticated version of the International Standard Industrial Classification of All Economic Activities (ISIC).

Employer

This refers to an individual or organization that hires and compensate employees for their work, define the terms of engagement and provides the agreed-upon terms such as the work compensations.

Employee

An employee is an individual hired by an employer to do a specific job to work either part-time, full-time, or on temporary basis. Barter his or her skills, knowledge, experience, and contribution in exchange for compensation from an employer. In this survey, outsourced workers were excluded.

Terms of Engagement

This is the categories of workers by terms of their engagement in enterprises, examples of which include; Casual employee, Regular employee, Working Proprietor/Directors

Casual employee

This refers to a person whose terms of engagement is either on a very short term, occasional, intermittent or on a continuous basis for a period not exceeding three months in return for a wage

Regular employee

It refers to an employee whose employment is reasonably expected to continue for longer than three months.

Proprietor/Partner/Working Owners or Directors

These are persons who operate their own businesses, or are engaged independently in some profession or trade, and may or may not engage someone. If they hire someone, they are working employers; and if they work alone in their business, they are own-account owners or workers. Whether they hire or not, the important point here is that each of them is an owner or operator of the business and works there.

Occupation

An occupation is a set of jobs whose main tasks and duties are characterized by a high degree of similarity. It also refers to the type of work done during the reference period by the person employed (or the type of work done previously, if the person is unemployed), irrespective of the industry or the status in employment in which the person should be classified.

Unskilled Worker (Elementary Occupations)

An unskilled employee is one who does operations that involve the performance of simple duties and tasks that require the experience of little or no previous experience or skills. Although familiarity with the occupational environment is mandatory. This type of workers may require more physical strength than any other skills. It includes worker such as janitor and maid services, fast food workers, or additional worker to help lift and move items

Semi-Skilled Worker (Technicians)

A semiskilled worker is one who does work of a general specified routine nature. The major requirement is not so much progress and that can be judged, and but for the proper discharge of duties assigned to him. It is a relatively narrow job and important decisions made by other higher officials. His work is hence limited to the performance of routine operations and does not have much career scope.

This category of workers requires a higher degree of proven ability and professional training or even an associate's degree. Truck drivers need certification. Bartenders require training. Taxi drivers essentially self-manage. Waiters need a complex understanding of their jobs. Salespeople need to read customers and make judgment calls. Semi-skilled worker usually has skills that are sought after and transferable.

Skilled Worker (Professionals)

A skilled employee is one who is capable of working efficiently of exercising considerable independent and judgment can be made. He can discharge his duties with responsibility. He must possess a good and comprehensive knowledge of the trade, craft or industry where he is employed.

Public Owned Firms

Is a type of business that is owned by government at more than 50 percent shareholding.

Private Owned Firms

Is a type of business whose local private shareholding at more than 50 percent.

Foreign Owned Firms

Is a type of business that is owned at more than 50 percent by foreign shareholding.

Skill gaps

This refers to the difference between an organization skill needs and current capability of its work force. A skill gap is when the current workforce's skill set doesn't align with the skills, needed to perform a task.

Skills Shortage

This exist when employers are unable to fill or have considerable difficulties in filling vacancies for an occupation or specialized skill needs within that occupation, at current levels of remuneration and conditions of employment.

Job

Refers to a set of related tasks that define someone position/title in an enterprise.

Current vacancy

Vacancies are unfilled job openings for jobs that can be offered within two weeks, and for which the firm is currently actively recruiting during the survey period