



**REPUBLIC OF KENYA**

**MINISTRY OF LABOUR AND SOCIAL PROTECTION**

**STATE DEPARTMENT FOR LABOUR**

**NATIONAL HUMAN RESOURCE PLANNING AND DEVELOPMENT DEPARTMENT**

**DRAFT REPORT**

**ON**

**SURVEY OF TRAINING OUTTURNS IN LOCAL INSTITUTIONS IN NAIROBI**

**(PHASE 1)**

**JUNE, 2023**

## FOREWORD

The Ministry of Labour and Social Protection has the mandate of national human resource planning and development. The overarching objective is to guide development of a skilled human resource base that will effectively contribute to national development, through provision of related statistics and policy briefs. The Kenya Vision 2030, which aims at transforming Kenya into a globally competitive and prosperous country by 2030, identifies education and training as one of the levers that will drive Kenya into becoming an industrialized, middle-income economy. The Vision places great emphasis on the link between training and industry, the need to create entrepreneurial skills and competencies, and strengthen partnerships with the private sector in investment and provision of education and training in the country.

Kenya's global competitiveness depends on the country's ability to create a human resource base with the requisite skills that are in tandem with the dynamics of the rapidly changing labour market, both locally and internationally. However, the country's education and training system is currently driven by social demand as opposed to labour market demand, resulting in oversupply in certain skills amidst critical shortages in others. Human resource development and institutional capacity building have been identified as some of the prerequisite strategic objectives for achieving the Vision, and for the implementation of the National Development Plans.

In addition, there is also an apparent disharmony between national development aspirations as contained in major blue prints such as the Vision 2030 and those of institutions and agencies charged with the responsibility of making them happen. A case in point is the challenges the country has had to face in providing skilled manpower for the Standard Gauge Railway (SGR). The same may be said about other emerging occupations such as oil and gas exploration as well as coal and titanium mining, whose skill requirements ought to have been planned for much earlier.

The importance of Labor Market Information (LMI) to the efficient functioning of product and input markets has increased with the expanding globalization of economic activity. However, lack of Labour market information has been identified as one of the major challenges in employment promotion in Kenya. Easily accessible high-quality LMI is a key ingredient to the

success of a modern economy. Ideally, Labour market information can improve both the short- and long-term matches of labour supply and demand, ensuring that individuals acquire the skill sets required by employers for today's dynamic labour market. The newly developed Kenya Labour Market Information System (KLMIS) is designed to serve as a Labour Market Observatory for the entire economy through provision of timely, relevant and reliable labour market information. The information obtained from the STLI will be provide a useful input into the KLMIS.

We are confident that the findings of the STLI will prove quite invaluable to policy decision makers, practitioners and all role players in the education and training sector. Members of the private sector should too find them useful. As there is indication of openness by the Government to regularly hold consultative meetings to receive and exchange ideas on human resource planning, development and utilization

## **PREFACE**

One of the functions under the State Department for Labour is the provision of labour market information. The Survey on Training in Local Institutions (STLI) is one of the regular Programmes carried out by the State Department to obtain current, training-related labour market information for updating the Master File of training institutions within the country as well as monitor trends in skill development and outflow of various skills to the labour market. The survey also assesses the status of staffing in our local institutions and documents any challenges affecting the delivery of quality training.

The survey will also produce data for updating the KLMIS content, for the benefit of the labour market, policy makers in government and other stakeholders. This includes information on the types of skills and numbers of trainees joining the labour market from various local training institutions.

The other objectives for Survey on Training in Local Institutions covering the years 2019 to 2021 were to: establish the numbers and types of training institutions at all levels and establish the courses offered, levels and duration.

Due to the extensive nature of the exercise, the survey was scheduled to be done in two phases between September 2022 to June 2023 (Phase one, Nairobi) and July, 2023 to June 2024 (Phase two, the rest of the counties outside Nairobi).

All types and levels of training institutions in the entire country were covered, as follows: National Polytechnics, Institutes of Technology, Technical Training Institutes and Commercial Colleges.

The report is organized in four (4) chapters as follows: Chapter One (1)- Background and Methodology, Chapter Two (2) - Data Analysis, Chapter three (3) Findings and Chapter Four (4)- Conclusions and Recommendations.

## **EXECUTIVE SUMMARY**

Training plays a vital role in the economic growth and development of Kenya, both in providing skills required in the economy and enhancing employability by generating skills that match the demands of the labour market. Kenya lacks a comprehensive database on skill generation as well as the stock of skills available to facilitate better planning of the human resource in the country.

The survey undertaken between September 2022 and April 2023 was designed to collect information to; build a master file of training Institutions, develop a data base of the skills being generated in the country, take stock of skills available among the academic staff in training institutions and identify areas of shortages. This information will inform the development of evidence-based policies that will be useful in configuring the National training systems to respond to the social economic needs of the country.

The survey adopted the descriptive research methodology using questionnaires to collect both qualitative and quantitative data on the intake and outturns from all categories of training institutions and the skills available among the academic staff. Since this was a census, the survey was carried out in Nairobi County targeting the national polytechnics, Technical Training institutes, commercial colleges categories of training institutions.

The survey frame was compiled of all known training institutions in Nairobi County. Within this frame, 129 Institutions were surveyed comprising of 106 public institutions and 23 private institutions. During data collection, it necessitated listing of the newly established training Institutions and in some instances, Institutions listed in the Master File were found to have either closed down or relocated especially during the COVID -19 period. Consequently, a lot of time was taken in locating both new and old Institutions. resulted to non- response in some cases in spite of several call backs.

Diploma level had the highest number of outturns in all the categories of institutions. A shortfall of 62.83 percent teaching staff was reported. Majority of the institutions were faced with the challenges of low enrollment, inadequate finance and physical infrastructure, shortage of staff, lack of tools and equipment.

## **ACRONYMS/ABBREVIATIONS**

<b>CBS</b>	Chief of the Burning Spear
<b>EGH</b>	Elder of the Golden Heart
<b>HON</b>	Honorable
<b>ICT</b>	Information Communication Technology
<b>ISCED</b>	International Standard Classification of Education
<b>KIM</b>	Kenya Institute of Management
<b>KLMIS</b>	Kenya Labour Market Information System
<b>MOEST</b>	Ministry of Education Science and Technology
<b>NHRPD</b>	National Human Resource Planning and Development
<b>NYS</b>	National Youth Service
<b>STLI</b>	Survey of Training in Local Institutions
<b>TIVETA</b>	Technical, Industrial and Vocational Educational Training Authority
<b>TTI</b>	Technical Training Institutes
<b>TVC</b>	Technical Vocational Colleges
<b>UNESCO</b>	United Nations Educational Scientific and Cultural Organization

## DEFINITION OF TERMS

<b>Artisan level of training:</b>	An entry level for practical training for school leavers.
<b>Bachelor's Degree:</b>	An academic degree awarded by colleges and universities upon completion of a course of study lasting three and above.
<b>Board of Trustees:</b>	This is a Board given control of administration of property in trust with a legal obligation to administer it solely for the purposes specified.
<b>Craft level of training:</b>	An entry level for practical training for secondary school leavers or those with Artisan Grade I certificate.
<b>Government Agencies:</b>	These include State Corporations and Semi- Autonomous Government Agencies (SAGAs).
<b>Graduate:</b>	A person who has successfully completed a course of study or training.
<b>Vocational Training:</b>	Focuses on practical application of skills learnt and is generally unconcerned with theory or traditional academic skills.
<b>Labour Market:</b>	It is the interaction between job seekers and prospective employers within the economy.
<b>Master file of Training Institutions:</b>	This is a directory of all training institutions in the Country.
<b>Master's Degree:</b>	A post graduate degree following a Bachelors degree and preceding a Doctorate.
<b>Outturns:</b>	It is the number of graduates produced by an institution during a specific period of time.
<b>PHD:</b>	Highest academic degree after Masters, usually referred to as Doctor of Philosophy.

- Proficiency course:** Supplementary training aimed at skills upgrading for improved performance and for career progression in specific cadres.
- Skill shortage:** Lack of sufficient skilled manpower.
- Vocational Trades:** Relates to applied educational courses concerned with skills needed for an occupation.



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## CHAPTER ONE

### **Background**

The Global Human Capital index released by the World Economic Forum in 2017 ranked Kenya at position 78 out of the 130, up from position 120 in 2016. The report used for indices to determine the scores of different countries, which were capacity, deployment, development and know how. The jump to the top hundred was attributed to the country's strong educational and the sizeable medium skilled employment sector. The country however still lags behind compared to countries such as Norway and Finland. Human capital development has been described as key to the future workforce. Many leading economies are transitioning towards putting more investment in the potential of their workforce.

The Kenya Vision 2030 and the second medium term plan 2018-2022 continue to emphasize on human resource development as key to national transformation. The vision's three pillars on economic, social and political development will continue to rely greatly on the availability of highly trained, adaptive and productive human resource base. Indeed, the development of a reliable and adequate data on skills available and those turning out from training institutions will be key factor to the achievement of the sector's plan objectives as outlined in the Vision.

For effective human Resource planning and development to be realized, it is important that accurate and up to date data on labour Market information is maintained. In Kenya, the training sector has expanded rapidly over the years to meet the rising demand for skills in the country. Today, there are a number of public and private universities with several tertiary training institutions providing courses in various fields. Investing in Technical and Vocational Education Training (TVET) institutions is not just about providing a few opportunities for some. TVETs are the only sure way to secure the future of this country, guaranteeing long term productivity, economic sustainability and inclusive growth.

The National Human Resource Planning and Development (NHRPD) collects labour market information data in order to track the trends in skills supply from training institutions and match

them with the industry demands, hence the survey of training in TVET institutions. This will contribute to the management and co-ordination of human resource planning, development and utilization.

### **1.1 Objectives of the Survey**

The main objective of the Study of Training in Local Institutions (STLI) was to determine the type, size and level of skills flow from Technical and Vocational Education Training Institutes (TVET) into the labour market. The specific objectives of the study were to:

1. Establish the stock of students and type of local training institutions at all levels in TVET institutions in Nairobi County.
2. Establish the programmes/courses offered in TVET Institutions in Nairobi County.
3. Determine training institutions academic staffing level in TVET institutions in Nairobi County.
4. Determine the effects of post COVID 19 pandemics in TVET institutions in Nairobi County.

### **1.2 Justification for the Survey**

In the past, efforts have been made to study the trends of the skills supply into the labour market from the training institutions in the country. Currently the data available on skills from training institutions is not up- to-date since the last survey was carried out in 2017. Therefore, there was need to undertake a survey of the local training institutions to capture the skills being produced and ascertain the status of TVET institutions owing to the fact that there has been transition where some of the institutions have changed their status.

For instance, some national polytechnics and other middle level colleges have transformed into public universities and commercial colleges which were formerly offering diploma Programme transformed into private universities. Other TVET institutions were closed down due to COVID-19 in 2020 and 2021.

The data collected will be used to update the National Human Resource Database in order to track the trends in skills supply from training institutions. This information will be paramount in the formulation and implementation of policies in human resource planning and development.

### **1.3 Scope and Coverage**

The survey covered both public and private TVET institutions. The following types of TVET institutions were covered: National Polytechnics, National Youth Service (NYS), Technical Training Institutes (TTIs), Vocational Training Centers (VTCs) and Commercial Colleges in Nairobi County.

### **1.4 Methodology**

The survey of training in TVET institutions was carried out as a census in all categories of training institutions mentioned under scope and coverage. A self-administered questionnaire was used to collect data on variables relating to; Intake, Outturns, Programme offered duration, cost, examining body and the skill levels of teaching staff. All these were captured by gender and year.

The survey was conducted between September 2022 and April 2023. The survey team comprised of officers from the Ministry headquarters.

### **1.5 Limitations and Constraints**

There were a number of challenges encountered during the execution of the Survey as follows: -

- i. The Master File on Training Institutions included those that were no longer in existence while excluding newly established ones. Many training institutions had a high rate of non-responsiveness despite several call-backs.
- ii. The Survey is meant to be an annual exercise in order to give the most current position in respect to skills development status in the Country. This has not been possible due to inadequacy of financial resources. The reference period for the survey was 2021. However, data had not been collected for the year 2018. This was time consuming and therefore, stretched the period of Survey due to large amount data required.
- iii. Records of various institutions were not uniformly maintained and not necessary in the format required for the survey. In addition, some of the institutions data was manually maintained. Therefore, conversion of data in the required format occasioned delay in responding.

- iv. Some private institutions may not have made full disclosures on staff shortages for fear of reprisals by government.
- v. Difficulty in establishing staff shortages where institutions fill gaps through contracting of part-time staff.



## CHAPTER TWO – DATA ANALYSIS

### 2.0 Introduction

This chapter presents an analysis of data collected from all categories of TVET institutions in Nairobi County that were covered during the survey. The information is presented in form of tables and figures.

#### 2.1.1 Data Coding

The International Standard Classification of Education and Training (ISCED- 1997 and 2011) fields of education under UNESCO coding system was used to aggregate the programmes offered in all levels of training institutions as in Appendix 2.

#### 2.1.2 Category and Type of Ownership of Training Institutions

Training institutions in Kenya are classified as either public or private. Table 1 illustrates the categories and types of ownership of training institutions covered. In this survey, training institutions were categorized on the basis of registration status of the institutions and not necessarily on the level of certificate that they award. Table 1 below presents the TVET institutions that responded by category and type of ownership. A total of 129 institutions participated in the study, with 106 of them being private and 23 of them being public institutions.

*Table 1: Training Institutions by Category and Type of Ownership*

Category of Institution	Number of Institutions that Responded		
	Public	Private	Total
Commercial Colleges	0	68	68
Technical Training Institutes	15	9	24
Vocational Training Centers	3	29	32
National Youth Service	4	0	4
National Polytechnics	1	0	1
<b>TOTAL</b>	<b>23</b>	<b>106</b>	<b>129</b>

*\*The numbers reflect only those institutions that responded and not the Total number of TVETS in Nairobi County*

## **2.2 NATIONAL POLYTECHNICS**

National polytechnics are middle-level technical training institutions that train youths or young people to acquire relevant skills and knowledge especially in areas revolving around Science, Technology and Innovation. Currently there are ten (10) National Polytechnics in the country with Nairobi County having 1 National Polytechnic.

### **2.2.1 Summary of Total Number of Intakes by Programme and Sex for National Polytechnics, 2019-2021**

Table 2 below presents a summary of total number of intakes by programme in National polytechnics for 2019 to 2021. Engineering and Engineering Trades had the highest number of intakes at 25.92 percent, followed by Business Administration, Education and Architecture and Construction at 14.58, 13.9 and 12.39 percent respectively.

The number of intakes in Engineering and Engineering Trades increased by 2.05 percent from 2019 to 2020 and dropped by 5.92 percent from 2020 to 2021. Business Administration had a drop in the number of intakes of 2.5 percent between the year 2019 to 2020, and an increase of 0.23 percent in 2021. The number of intakes in Education dropped by 0.17 percent in the year 2020 and increased by 8.80 percent in the year 2021.

Hygiene and Occupational Health Services had the lowest number of intakes at 0.51 percent. In Engineering and Engineering Trades, male recorded 21.36 percent of the total number of intakes, while females had 3.96 percent. Males had 10.76 and 7.22 percent of the total intakes in Architecture and Construction and Education respectively. Total number of intakes for female in Business Administration were 8.74 percent, while Health had 3.18 percent intakes.

During the period under review, males had the highest intakes at 60.61 percent while females had 39.39 percent. The lowest number of intakes for both male and female were in Hygiene and Occupational Health Services and Manufacturing and processing with less than one percent.

**Table 2: Summary of Total Intake by Programme and Sex for National Polytechnics, 2019-2021**

NATIONAL POLYTECHNIC INTAKE									
PROGRAMME	2019			2020			2021		
	M	F	TOTAL	M	F	TOTAL	M	F	TOTAL
AGRICULTURE	0.60	0.43	1.03	0.41	0.49	0.90	0.62	0.35	0.97
ARCHITECTURE AND CONSTRUCTION	10.46	1.56	12.02	11.94	1.28	13.22	9.86	2.07	11.94
ARTS	0.56	0.80	1.36	1.06	1.06	2.12	1.00	1.05	2.06
BIOLOGICAL AND RELATED SCIENCES	0.55	1.09	1.64	0.45	0.96	1.41	0.54	1.23	1.77
BUSINESS AND ADMINISTRATION	6.58	9.59	16.17	5.97	7.70	13.67	4.96	8.94	13.90
EDUCATION	6.19	4.89	11.08	5.39	5.52	10.91	10.08	9.63	19.71
ENGINEERING AND ENGINEERING TRADES	21.68	4.24	25.92	23.29	4.68	27.98	19.12	2.94	22.06
HEALTH	2.62	3.11	5.74	2.47	3.06	5.53	2.45	3.35	5.80
HYGIENE AND OCCUPATIONAL HEALTH SERVICES	0.00	0.00	0.00	0.47	0.04	0.51	0.00	0.00	0.00
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	5.68	3.15	8.83	5.34	3.00	8.34	5.63	3.20	8.83
JOURNALISM AND INFORMATION	0.57	1.04	1.61	0.63	1.39	2.02	0.70	1.30	2.00
MANUFACTURING AND PROCESSING	0.13	0.23	0.36	0.13	0.19	0.33	0.17	0.23	0.40
PERSONAL SERVICES	3.63	7.39	11.01	3.96	6.79	10.75	1.77	5.72	7.49
PHYSICAL SCIENCES	0.96	0.77	1.73	0.78	0.53	1.30	1.03	0.65	1.69
WELFARE	0.63	0.87	1.50	0.51	0.49	1.01	0.25	1.15	1.39
TOTALS	60.84	39.16	100.0	62.82	37.18	100.00	58.18	41.82	100.00

### 2.2.2 Summary of Total Outturns by Programme and Sex in National polytechnics, 2019-2021

Table 3 below presents a summary of total number of outturns by programme and sex for National Polytechnics from 2019 to 2021. Education had the highest number of outturns at 60.75 percent followed by Journalism and information at 6.24. Arts, Hygiene and Occupational Health; and Manufacturing and processing had less than one percent. The number of outturns in Education dropped by 5.81 percent in 2020 and increased by 17.75 percent in 2021. Hygiene and Occupational Health Services had no outturns in 2019 and 2021. Male were more in

Education with 26.52 percent of the total outturns.

During the period under review, males had the higher outturns at 53.93 percent.

**Table 3: Summary of Total Outturns by Programme and Sex in National Polytechnics, 2019-2021**

NATIONAL POLYTECHNIC OUTTURNS PER PROGRAMME AND GENDER									
PROGRAMME	2019			2020			2021		
	M	F	TOTAL %	M	F	TOTAL %	M	F	TOTAL %
AGRICULTURE	0.41	0.65	1.06	0.00	0.15	0.2	0.48	0.38	0.86
ARCHITECTURE AND CONSTRUCTION	5.51	1.06	6.57	4.92	1.24	6.2	3.11	1.54	4.64
ARTS	0.30	0.19	0.50	0.10	0.08	0.2	0.04	0.02	0.06
BIOLOGICAL AND RELATED SCIENCES	0.37	0.22	0.58	0.13	0.18	0.3	0.10	0.02	0.12
BUSINESS AND ADMINISTRATION	3.83	7.69	11.52	5.10	5.58	10.7	2.57	5.70	8.27
EDUCATION	27.27	21.54	48.80	21.23	21.76	43.0	31.06	29.69	60.75
ENGINEERING AND ENGINEERING TRADES	2.37	0.54	2.91	11.41	1.19	12.6	1.69	0.19	1.88
HEALTH	2.65	3.17	5.82	3.51	2.50	6.0	3.24	3.86	7.10
HYGIENE AND OCCUPATIONAL HEALTH SERVICES	0.00	0.00	0.00	1.87	0.15	2.0	0.00	0.00	0.00
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	2.69	2.48	5.17	1.09	0.66	1.7	0.92	0.86	1.79
JOURNALISM AND INFORMATION	2.61	2.50	5.10	3.51	3.08	6.6	3.59	2.65	6.24
MANUFACTURING AND PROCESSING	0.54	0.45	0.99	0.50	0.91	1.4	0.06	0.33	0.38
PERSONAL SERVICES	0.00	0.00	0.00	1.11	5.12	6.2	1.46	3.72	5.18
PHYSICAL SCIENCES	0.13	0.09	0.22	0.33	0.28	0.6	0.88	0.48	1.36
WELFARE	0.13	1.12	1.25	0.61	1.72	2.3	0.21	1.15	1.36
NOT STATED	8.16	1.36	9.52	0.00	0.00	0.0	0.00	0.00	0.00
<b>TOTALS</b>	<b>56.97</b>	<b>43.03</b>	<b>100.0</b>	<b>55.42</b>	<b>44.58</b>	<b>100.0</b>	<b>49.40</b>	<b>50.60</b>	<b>100.00</b>

### 2.2.3 Outturns by Programme, Level and Sex in National Polytechnics, 2019

Table 4 below presents the number of outturns by Programme, Level and Sex in National Polytechnics in the year 2019. Out of the total number of outturns in the year 2019, 56.97 percent were male, while 43.03 percent were female. The program with the highest number of outturns

was Education at 21.54 percent, followed by Business and Administration at 11.52 percent and Architecture and Construction 6.57 percent. Physical Sciences had the least number of outturns at 0.22 percent.

**Table 4: Outturns by Programme, Level and Sex in National Polytechnics, 2019**

National Polytechnic 2019 Outturns by Gender, Programme and Educational Levels															
PROGRAMMES	LEVEL 2019														
	ARTISAN			CERTIFICATE			CRAFT			DIPLOMA			TOTAL	M TOTAL	F TOTAL
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL			
ARTS	0.00	0.00	0.00	0.13	0.13	0.26	0.00	0.00	0.00	0.17	0.06	0.24	0.50	0.30	0.19
ARCHITECTURE AND CONSTRUCTION	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.06	0.90	4.67	0.99	5.66	6.57	5.51	1.06
JOURNALISM AND INFORMATION	0.00	0.00	0.00	0.52	0.54	1.06	0.00	0.00	0.00	2.09	1.96	4.05	5.10	2.61	2.50
EDUCATION	0.00	0.00	0.00	7.32	7.67	14.99	0.00	0.00	0.00	19.94	13.87	33.81	48.80	27.27	21.54
ENGINEERING AND ENGINEERING TRADES	0.32	0.11	0.43	0.00	0.00	0.00	0.43	0.11	0.54	1.62	0.32	1.94	2.91	2.37	0.54
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	0.00	0.00	0.00	0.02	0.17	0.19	0.00	0.00	0.00	2.67	2.30	4.98	5.17	2.69	2.48
MANUFACTURING AND PROCESSING	0.00	0.00	0.00	0.50	0.45	0.95	0.04	0.00	0.04	0.00	0.00	0.00	0.99	0.54	0.45
BUSINESS AND ADMINISTRATION	0.00	0.00	0.00	0.09	0.24	0.32	0.39	0.82	1.21	3.36	6.63	9.99	11.52	3.83	7.69
AGRICULTURE	0.00	0.00	0.00	0.00	0.15	0.15	0.00	0.00	0.00	0.41	0.50	0.90	1.06	0.41	0.65
BIOLOGICAL AND RELATED HEALTH SCIENCES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.22	0.58	0.58	0.37	0.22
HEALTH	0.00	0.00	0.00	0.93	1.57	2.50	0.13	0.02	0.15	1.59	1.57	3.17	5.82	2.65	3.17
WELFARE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	1.12	1.25	1.25	0.13	1.12
PHYSICAL SCIENCES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.09	0.22	0.22	0.13	0.09
NOT STATED	0.00	0.00	0.00	1.62	0.28	1.90	0.80	0.11	0.90	5.75	0.97	6.72	9.52	8.16	1.36
<b>TOTALS</b>	0.32	0.11	0.43	11.11	11.20	22.31	2.63	1.12	3.75	42.90	30.61	73.51	100.00	56.97	43.03

### 2.2.4 Outturns by Programmes, Level and Sex in National Polytechnics, 2020

Table 5 gives the total number of outturns by programmes, level and sex for the year 2020. Male had the highest number of outturns at 55.40 percent. The program with the highest number of outturns was Education at 42.98 percent, followed by Engineering and Engineering Trade at 12.59 percent and Business and Administration at third position representing 10.70 percent. The

lowest number of outturns were recorded in Agriculture at 0.15 percent, Arts at 0.18 percent and Biological and Related Health Sciences at 0.30 percent.

Diploma level had the highest number of outturns at 73.51 percent, followed by Certificate at 22.31 percent and Artisan at 0.43 percent. Male had a higher number of outturns in all levels except at certificate level, where Female had a higher number of outturns at 11.20 percent. Male had higher outturns in Education, Engineering and Engineering Trades and Architecture and Construction while Females in Business and administration and personal services.

**Table 5: Outturns by Programmes, Level and Sex in National Polytechnics, 2020**

National Polytechnic 2020 Outturns by Gender, Programme and Educational Levels												
PROGRAMMES	LEVEL 2020											
	ARTISAN			CERTIFICATE			DIPLOMA			TOTAL	M TOTAL	F TOTAL
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL			
ARTS	0.00	0.00	0.00	0.19	0.22	0.41	0.60	0.58	1.18	1.59	0.79	0.80
ARCHITECTURE AND CONSTRUCTION	0.00	0.00	0.00	6.12	0.47	6.59	6.06	0.83	6.89	13.48	12.18	1.30
JOURNALISM AND INFORMATION	0.00	0.00	0.00	0.06	0.12	0.18	0.52	1.29	1.82	2.00	0.58	1.42
EDUCATION	0.00	0.00	0.00	1.88	2.14	4.03	3.61	3.56	7.17	11.20	5.50	5.70
ENGINEERING AND ENGINEERING TRADES	0.00	0.00	0.00	7.44	1.86	9.30	16.31	2.79	19.10	28.40	23.76	4.65
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	0.00	0.00	0.00	1.59	0.90	2.50	3.86	2.16	6.01	8.51	5.45	3.06
MANUFACTURING AND PROCESSING	0.00	0.00	0.00	0.10	0.00	0.10	0.03	0.20	0.23	0.33	0.14	0.20
BUSINESS AND ADMINISTRATION	0.00	0.00	0.00	0.45	0.91	1.36	5.51	5.72	11.23	12.59	5.96	6.63
AGRICULTURE	0.00	0.00	0.00	0.05	0.37	0.42	0.37	0.13	0.50	0.91	0.42	0.50
PHYSICAL SCIENCES	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.54	1.33	1.33	0.79	0.54
BIOLOGICAL AND RELATED HEALTH SCIENCES	0.00	0.00	0.00	0.26	0.85	1.11	0.20	0.13	0.33	1.44	0.46	0.98
HEALTH	0.00	0.00	0.00	0.07	0.18	0.24	2.45	2.95	5.40	5.64	2.52	3.12
WELFARE	0.00	0.00	0.00	0.20	0.31	0.50	0.33	0.20	0.52	1.03	0.52	0.50
PERSONAL SERVICES	0.48	0.61	1.10	3.14	3.28	6.42	0.48	3.03	3.51	11.03	4.10	6.92
HYGIENE AND OCCUPATIONAL HEALTH SERVICES	0.00	0.00	0.00	0.48	0.04	0.52	0.00	0.00	0.00	0.52	0.48	0.04
<b>TOTALS</b>	0.48	0.61	1.10	22.04	11.65	33.68	41.13	24.09	65.22	100.00	63.65	36.35

## 2.2.5 Outturns by Programmes, Level and Sex in National Polytechnics, 2021

In the year under review, 49.40 percent of the total number of outturns were male, while 50.60 percent female as shown in Table 6 below. The program with the highest number of outturns was Education at 60.75 percent. Arts, Manufacturing and Processing, Agriculture and Biological and Related Health Sciences had the lowest number of outturns at less than 1 percent each.

Diploma level had the highest number of outturns at 78.75 percent, followed by Certificate level at 11.82 percent, while Craft level had 8.29 percent of the total number of outturns. Male had a higher number of outturns in Diploma and Artisan while female had higher outturn in Certificate and Craft levels.

**Table 6: Outturns by Programmes, Level and Sex in National Polytechnics, 2021**

National Polytechnic 2021 Outturns by Gender, Programme and Educational Levels															
PROGRAMMES	LEVEL 2021														
	ARTISAN			CERTIFICATE			CRAFT			DIPLOMA			TOTAL	M TOTAL	F TOTAL
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL			
ARTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.02	0.06	0.06	0.04	0.02
ARCHITECTURE AND CONSTRUCTION	0.25	0.00	0.25	0.00	0.00	0.00	0.56	0.58	1.13	2.30	0.96	3.26	4.64	3.11	1.54
JOURNALISM AND INFORMATION	0.00	0.00	0.00	0.42	0.19	0.61	0.38	0.29	0.67	2.78	2.17	4.95	6.24	3.59	2.65
EDUCATION	0.00	0.00	0.00	3.95	5.85	9.81	0.00	0.00	0.00	27.10	23.84	50.94	60.75	31.06	29.69
ENGINEERING AND ENGINEERING TRADES	0.54	0.02	0.56	0.00	0.00	0.00	1.00	0.13	1.13	0.15	0.04	0.19	1.88	1.69	0.19
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.86	1.79	1.79	0.92	0.86
MANUFACTURING AND PROCESSING	0.00	0.00	0.00	0.02	0.27	0.29	0.00	0.02	0.02	0.04	0.04	0.08	0.38	0.06	0.33
BUSINESS AND ADMINISTRATION	0.00	0.00	0.00	0.00	0.00	0.00	0.25	1.00	1.25	2.32	4.70	7.02	8.27	2.57	5.70
AGRICULTURE	0.00	0.00	0.00	0.23	0.35	0.58	0.00	0.00	0.00	0.25	0.04	0.29	0.86	0.48	0.38
BIOLOGICAL AND RELATED HEALTH SCIENCES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.02	0.12	0.12	0.10	0.02
HEALTH	0.00	0.00	0.00	0.02	0.29	0.31	0.33	0.02	0.35	2.90	3.55	6.45	7.10	3.24	3.86
WELFARE	0.00	0.00	0.00	0.02	0.21	0.23	0.00	0.00	0.00	0.19	0.94	1.13	1.36	0.21	1.15
PHYSICAL SCIENCES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.48	1.36	1.36	0.88	0.48
PERSONAL SERVICES	0.08	0.25	0.33	0.00	0.00	0.00	0.73	3.01	3.74	0.65	0.46	1.11	5.18	1.46	3.72
<b>TOTALS</b>	0.86	0.27	1.13	4.66	7.16	11.82	3.24	5.05	8.29	40.63	38.12	78.75	100.00	49.40	50.60

## **2.3 TECHNICAL TRAINING INSTITUTES**

Technical Training Institutes (TTIs) form an integral part of Kenya's technical, industrial and vocational education and training. Initially, these institutions were started as trade schools with the aim of creating a reservoir of indigenous technical personnel in the country. With the introduction of the 8-4-4 education system in 1985, the Secondary Technical Schools were eventually converted into the current Technical Training Institutes which kept on expanding from 20 TTIs in 2004 to 43 both public and private which are currently operating in the country.

### **2.3.1 Summary of Total Number of Intakes by Programme and Sex in Technical Training Institutes, 2019- 2021**

Table 7 presents a summary of total number of intakes in Technical Training Institutions by programme and sex for years 2019 to 2021. Business Administration had the highest number of intakes at 26.85 percent, followed by Engineering and Engineering Trades and Personal Services at 25.27 and 15 .75 percent respectively.

The survey showed that the number of intakes in Business Administration increased by 4.57 percent from 2019 to 2020 and dropped by 3.77 percent from 2020 to 2021. The number of intakes in Engineering and Engineering Trades dropped by 1.3 percent in the year 2020, and increased by 1.25 percent in the year 2021. The student intake in Personal Services dropped by 1.27 percent in 2020 and increased by 1.79 percent in the year 2021.

The programme with the lowest number of intakes was physical sciences which had no intake in 2019 and recorded an intake of 0.03 and 0.01 percent in 2020 and 2021 respectively.

In Business and Administration programme, female recorded a higher intake than males in the period under review, while male recorded a higher intake in Engineering and Engineering Trades. During the period under review, male had the highest number of intakes.



**Table 7: Summary of Total Number of Intakes by Programme and Sex in Technical Training Institutes, 2019-2021**

TECHNICAL TRAINING INSTITUTE INTAKE PER PROGRAMME AND GENDER										
PROGRAMME	2019			2020			2021			
	M	F	TOTAL	M	F	TOTAL	M	F	TOTAL	
AGRICULTURE	0.36	0.30	0.66	0.50	0.33	0.83	0.64	0.31	0.96	
ARCHITECTURE AND CONSTRUCTION	2.85	1.03	3.88	2.48	0.55	3.03	2.79	0.86	3.65	
ARTS	2.82	0.63	3.45	2.07	0.66	2.74	1.53	0.54	2.07	
BASIC PROGRAMMES AND QUALIFICATIONS	0.04	0.04	0.08	0.01	0.01	0.02	0.01	0.01	0.02	
BIOLOGICAL AND RELATED SCIENCES	0.64	0.48	1.13	0.60	0.60	1.21	0.48	0.70	1.18	
BUSINESS AND ADMINISTRATION	10.75	14.31	25.06	11.68	17.95	29.63	8.91	16.95	25.86	
EDUCATION	0.31	0.42	0.73	0.37	0.70	1.07	0.16	0.28	0.44	
ENGINEERING AND ENGINEERING TRADES	22.05	3.67	25.72	20.59	3.83	24.42	22.17	3.50	25.67	
ENVIRONMENT	1.55	1.23	2.78	0.70	1.02	1.73	0.92	0.88	1.80	
HEALTH	0.57	0.29	0.86	0.79	0.55	1.34	0.53	0.35	0.88	
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	6.58	4.45	11.04	5.93	3.97	9.90	5.86	4.11	9.97	
JOURNALISM AND INFORMATION	0.30	0.28	0.58	0.23	0.20	0.43	0.16	0.08	0.24	
LANGUAGES	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.18	0.32	
MANUFACTURING AND PROCESSING	0.46	0.78	1.24	0.39	1.14	1.53	0.36	0.85	1.21	
PERSONAL SERVICES	5.25	10.74	16.00	4.70	10.04	14.73	4.87	11.65	16.52	
PHYSICAL SCIENCES	0.00	0.00	0.00	0.01	0.02	0.02	0.00	0.01	0.01	
SECURITY SERVICES	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.05	0.09	
TRANSPORT SERVICES	2.04	1.76	3.80	1.81	2.44	4.25	3.98	2.32	6.30	
VETERINARY	0.74	0.25	1.00	0.64	0.24	0.89	0.58	0.21	0.79	
WELFARE	0.82	1.18	2.00	0.64	1.61	2.25	0.64	1.38	2.02	
<b>TOTAL</b>	<b>58.14</b>	<b>41.86</b>	<b>100.00</b>	<b>54.14</b>	<b>45.86</b>	<b>100.00</b>	<b>54.78</b>	<b>45.22</b>	<b>100.00</b>	

### 2.3.2 Summary of Total Outturns by Programme and Sex for Technical Training Institute, 2019 – 2021

Table 8 below presents a summary of total outturns by programme and sex for Technical Training Institutes from 2019 to 2021. Personal Services had the highest number of outturns at 26.55 percent, followed by Engineering and Engineering Trades and Business Administration at 14.38 and 14.01 percent respectively. The programme that had lowest outturns was Environment that had no outturns in 2019 and 2020 and only recorded 0.11 percent in 2021, followed by Languages that only reported 0.61 percent outturns in 2021.

Female recorded a higher intake than male in the three years in Business and Administration, while male recorded a higher intake in Engineering and Engineering. During the period under review, male had the highest number of intakes.

**Table 8: Summary of Total Number of Outturns by Programme and Sex in Technical Training Institutes, 2019-2021**

<i>Programmes</i>	<b>2019</b>			<b>2020</b>			<b>2021</b>		
	<i>M</i>	<i>F</i>	<i>Total</i>	<i>M</i>	<i>F</i>	<i>Total</i>	<i>M</i>	<i>F</i>	<i>Total</i>
<b>Agriculture</b>	0.41	0.33	<b>0.75</b>	0.95	0.68	<b>1.63</b>	1.1	0.43	<b>1.53</b>
<b>Architecture and Construction</b>	10.11	3.73	<b>13.84</b>	8.28	3.24	<b>11.52</b>	9.02	3.2	<b>12.22</b>
<b>Arts</b>	0.54	0.26	<b>0.8</b>	0.6	0.18	<b>0.78</b>	0.3	0.09	<b>0.39</b>
<b>Biological and Related Sciences</b>	0.72	0.61	<b>1.32</b>	0.58	0.71	<b>1.29</b>	0.3	0.63	<b>0.93</b>
<b>Business and Administration</b>	4.53	7.74	<b>12.28</b>	6.79	11.57	<b>18.37</b>	4.91	9.1	<b>14.01</b>
<b>Education</b>	0.64	2.19	<b>2.83</b>	0.8	0.88	<b>1.68</b>	0.46	2.78	<b>3.24</b>
<b>Engineering and Engineering Trades</b>	11.26	1.61	<b>12.86</b>	14.4	1.9	<b>16.3</b>	12.82	1.56	<b>14.38</b>
<b>Environment</b>	0	0	<b>0</b>	0	0	<b>0</b>	0.01	0.1	<b>0.11</b>
<b>Health</b>	1.24	1.28	<b>2.51</b>	1.63	1.16	<b>2.79</b>	0.67	0.69	<b>1.36</b>
<b>Hygiene and Occupational Health Services</b>	0.1	0.15	<b>0.25</b>	0	0	<b>0</b>	0.09	0.13	<b>0.21</b>
<b>Information and Communication Technologies</b>	6.33	7.59	<b>13.91</b>	5.2	3.9	<b>9.11</b>	6.34	4.99	<b>11.33</b>
<b>Journalism and Information</b>	0.26	0.11	<b>0.36</b>	0.39	0.08	<b>0.46</b>	0.35	0.09	<b>0.44</b>
<b>Languages</b>	0	0	<b>0</b>	0	0	<b>0</b>	0.29	0.31	<b>0.61</b>
<b>Manufacturing and Processing</b>	1.02	0.58	<b>1.6</b>	1.39	1.93	<b>3.32</b>	0.94	1.57	<b>2.52</b>
<b>Personal Services</b>	7.46	15.78	<b>23.24</b>	7.04	18.29	<b>25.33</b>	7.68	18.87	<b>26.55</b>
<b>Physical Sciences</b>	0.11	0.22	<b>0.32</b>	0.14	0.08	<b>0.21</b>	0.05	0.07	<b>0.12</b>
<b>Transport Services</b>	7.65	2.48	<b>10.14</b>	2.4	1.88	<b>4.28</b>	4.45	2.88	<b>7.33</b>
<b>Veterinary</b>	0.51	0.21	<b>0.72</b>	0.88	0.31	<b>1.19</b>	0.36	0.14	<b>0.5</b>

<b>Welfare</b>	0.63	1.65	<b>2.28</b>	0.56	1.19	<b>1.75</b>	0.68	1.54	<b>2.22</b>
<b>Total</b>	<b>53.5</b>	<b>46.5</b>	<b>100</b>	<b>52.03</b>	<b>47.97</b>	<b>100</b>	<b>50.82</b>	<b>49.18</b>	<b>100</b>

### **2.3.3 Outturns by Programme, level and sex in Technical Training Institutes, 2019**

Table 9 presents the total number of outturns by programme, level and sex in Technical Training Institutes in 2019. The analysis showed that out of the total number of outturns, 56.70 percent were male. The programme with the highest number of outturns was Business Administration at 24.07 percent, followed by Engineering and Engineering Trades at 22.84 percent and Personal Services at third position with 15.83 percent. The Programme with the lowest number of outturns was Basic Programmes and Qualifications at 0.09 percent, followed Agriculture and Education at 0.68 and 0.86 percent respectively.

Diploma level had the highest number of outturns at 49.63 percent, followed by Certificate at 36.77 percent. Artisan and Craft levels recorded the lowest outturns at less than 5 percent each. Male had a higher number of outturns in Diploma, Certificate and Certificate 1 GTT1 levels while female outturns were higher in Craft and Artisan levels.

***Table 9: Outturns by Programme, Level, and Sex in Technical Training Institutes, 2019***

PROGRAMMES	LEVEL 2019																	
	ARTISAN			CERTIFICATE			CRAFT			DIPLOMA			CERTIFICATE 1 GTT1			TOTAL	M TOTAL	F TOTAL
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL			
ARTS	0.00	0.00	0.00	0.03	0.04	0.06	0.00	0.00	0.00	3.06	0.62	3.68	0.20	0.05	0.25	4.00	3.30	0.70
ARCHITECTURE AND CONSTRUCTION	0.18	0.01	0.19	0.76	0.14	0.90	0.12	0.01	0.12	0.87	0.48	1.35	0.36	0.09	0.46	3.02	2.29	0.73
TRANSPORT SERVICES	0.03	0.01	0.04	1.74	1.18	2.92	0.00	0.00	0.00	0.39	0.70	1.09	0.00	0.00	0.00	4.04	2.16	1.88
JOURNALISM AND INFORMATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.85	1.21	0.00	0.00	0.00	1.21	0.36	0.85
EDUCATION	0.00	0.00	0.00	0.05	0.04	0.09	0.00	0.00	0.00	0.31	0.45	0.76	0.00	0.00	0.00	0.86	0.36	0.49
ENGINEERING AND ENGINEERING TRADES	0.64	0.04	0.68	4.02	0.39	4.41	0.44	0.04	0.47	14.07	1.60	15.67	1.46	0.16	1.62	22.84	20.62	2.22
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	0.00	0.00	0.00	3.60	2.87	6.47	0.13	0.09	0.23	2.78	1.18	3.95	0.10	0.45	0.55	11.19	6.61	4.59
MANUFACTURING AND PROCESSING	0.07	0.07	0.14	0.32	0.62	0.94	0.02	0.07	0.08	0.02	0.06	0.08	0.11	0.10	0.21	1.45	0.54	0.92
PERSONAL SERVICES	0.91	2.06	2.98	1.62	3.05	4.67	0.39	0.89	1.28	2.04	4.53	6.57	0.16	0.17	0.34	15.83	5.12	10.71
BUSINESS AND ADMINISTRATION	0.03	0.05	0.08	5.22	8.80	14.01	0.00	0.00	0.00	2.84	3.34	6.18	1.88	1.92	3.80	24.07	9.97	14.10
AGRICULTURE	0.03	0.02	0.05	0.17	0.11	0.28	0.02	0.03	0.05	0.20	0.09	0.29	0.00	0.00	0.00	0.68	0.43	0.25
BASIC PROGRAMMES AND QUALIFICATIONS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.04	0.09	0.00	0.00	0.00	0.09	0.05	0.04
BIOLOGICAL AND RELATED HEALTH SCIENCES	0.00	0.00	0.00	0.03	0.14	0.17	0.00	0.00	0.00	0.72	0.43	1.15	0.00	0.00	0.00	1.32	0.75	0.57
ENVIRONMENT	0.00	0.00	0.00	0.51	0.39	0.90	0.00	0.00	0.00	1.30	1.05	2.35	0.00	0.00	0.00	3.25	1.81	1.44
HEALTH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	2.44	3.10	0.00	0.00	0.00	3.10	0.67	2.44
VETERINARY	0.00	0.00	0.00	0.40	0.00	0.40	0.00	0.00	0.00	0.47	0.14	0.61	0.00	0.00	0.00	1.01	0.87	0.14
WELFARE	0.00	0.00	0.00	0.18	0.35	0.54	0.00	0.00	0.00	0.62	0.87	1.49	0.00	0.00	0.00	2.03	0.81	1.22
<b>TOTALS</b>	<b>1.89</b>	<b>2.26</b>	<b>4.15</b>	<b>18.66</b>	<b>18.11</b>	<b>36.77</b>	<b>1.11</b>	<b>1.12</b>	<b>2.23</b>	<b>30.77</b>	<b>18.87</b>	<b>49.63</b>	<b>4.28</b>	<b>2.93</b>	<b>7.22</b>	<b>100.00</b>	<b>56.70</b>	<b>43.30</b>

### 2.3.4 Outturns by Programme, Level and Sex in Technical Training Institutes, 2020

Table 10 below presents the total number of outturns by programme, level and sex in Technical Training institutions for the year 2020. Out of the total number of outturns recorded in the period under review, 53.19 percent were male.

The programme with the highest number of outturns was Business Administration at 30.79 percent, followed by Engineering and Engineering Trades at 23.36 percent and Personal Services at 14.32 percent. Journalism and Information, Physical Sciences and Basic Programmes and Qualifications were the programmes which recorded low outturns at less than 1 percent each.

Diploma level had the highest number of outturns at 48.66 percent, followed by Certificate at 43.73 while Certificate 1 GTT1, Artisan and Craft levels recorded low outturns at less than 4 percent each. Male had the highest number of outturns at Diploma, Artisan and Certificate GTT1 levels while female registered a higher of outturns than the male at Certificate and Craft levels.

***Table 10: Outturns by Programme, Level, and Sex in Technical Training Institutes, 2020***

PROGRAMMES	LEVEL 2020																	
	ARTISAN			CERTIFICATE			CRAFT			DIPLOMA			CERTIFICATE 1 GTT1			M TOTAL	F TOTAL	
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL			
ARTS	0.00	0.00	0.00	0.06	0.08	0.13	0.00	0.00	0.00	1.87	0.67	2.55	0.14	0.01	0.14	2.82	2.07	0.75
ARCHITECTURE AND CONSTRUCTION	0.02	0.01	0.03	0.98	0.16	1.14	0.11	0.00	0.11	0.60	0.27	0.87	0.31	0.03	0.34	2.49	2.03	0.47
TRANSPORT SERVICES	0.00	0.00	0.00	1.20	0.89	2.08	0.00	0.00	0.00	0.37	1.42	1.79	0.00	0.00	0.00	3.88	1.57	2.31
JOURNALISM AND INFORMATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.23	0.48	0.00	0.00	0.00	0.48	0.26	0.23
EDUCATION	0.00	0.00	0.00	0.04	0.07	0.11	0.00	0.00	0.00	0.38	0.73	1.11	0.00	0.00	0.00	1.21	0.42	0.80
ENGINEERING AND ENGINEERING TRADES	1.03	0.13	1.16	3.84	0.59	4.44	0.00	0.00	0.00	13.57	2.71	16.27	1.37	0.13	1.50	23.36	19.81	3.55
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	0.00	0.00	0.00	3.31	2.05	5.36	0.13	0.08	0.21	2.35	1.59	3.93	0.11	0.25	0.36	9.87	5.90	3.97
MANUFACTURING AND PROCESSING	0.03	0.04	0.07	0.31	0.98	1.29	0.01	0.03	0.04	0.03	0.05	0.08	0.06	0.09	0.16	1.64	0.45	1.19
PERSONAL SERVICES	0.45	1.06	1.51	1.94	4.42	6.37	0.30	0.55	0.86	1.65	3.90	5.55	0.04	0.00	0.04	14.32	4.39	9.93
BUSINESS AND ADMINISTRATION	0.05	0.06	0.11	7.59	12.97	20.56	0.12	0.08	0.20	3.82	5.33	9.15	0.40	0.37	0.77	30.79	11.98	18.80
AGRICULTURE	0.00	0.00	0.00	0.28	0.22	0.50	0.00	0.00	0.00	0.29	0.16	0.45	0.00	0.00	0.00	0.94	0.57	0.38
BASIC PROGRAMMES AND QUALIFICATIONS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.00	0.00	0.00	0.02	0.01	0.01
BIOLOGICAL AND RELATED HEALTH SCIENCES	0.00	0.00	0.00	0.03	0.18	0.21	0.00	0.00	0.00	0.65	0.50	1.16	0.00	0.00	0.00	1.37	0.69	0.69
ENVIRONMENT	0.00	0.00	0.00	0.21	0.16	0.36	0.00	0.00	0.00	0.59	1.01	1.60	0.00	0.00	0.00	1.96	0.80	1.16
HEALTH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.63	1.52	0.00	0.00	0.00	1.52	0.89	0.63
VETERINARY	0.00	0.00	0.00	0.44	0.16	0.60	0.00	0.00	0.00	0.29	0.11	0.40	0.00	0.00	0.00	1.01	0.73	0.28
WELFARE	0.00	0.00	0.00	0.13	0.44	0.57	0.00	0.00	0.00	0.50	1.21	1.70	0.00	0.00	0.00	2.28	0.63	1.65
PHYSICAL SCIENCES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.00	0.00	0.00	0.03	0.01	0.02
<b>TOTALS</b>	1.59	1.28	2.87	20.36	23.36	43.73	0.67	0.75	1.42	28.13	20.53	48.66	2.44	0.88	3.32	100.00	53.19	46.81

### 2.3.5 Outturns by Programme, level and sex in Technical Training Institutes, 2021

Table 11 shows the distribution of outturns by programme, level and sex in Technical Training Institutes in the year 2021. Out of the total number of outturns, 53.74 percent were male while 46.26 percent were female. The programme with the highest number of outturns was Business Administration at 24.54 percent, followed by Engineering and Engineering Trades and Personal Services at 24.45 and 17.69 percent respectively. Programmes with low number of outturns were Security Services, Basic Programmes and Qualifications and Physical Sciences each recording less than 1 percent.

Diploma level had the highest number of outturns at 44.96 percent, followed by Certificate at 44.27 percent. Craft level had the lowest number of outturns at 1.97 percent. Male had higher number of outturns at all levels except Artisan and Craft levels.

**Table 11: Outturns by Programme, Level, and Sex in Technical Training Institutes, 2021**

PROGRAMMES	LEVEL 2021																	
	ARTISAN			CERTIFICATE			CRAFT			DIPLOMA			CERTIFICATE 1 GTT1					
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	TOTAL	MTOTAL	FTOTAL
ARTS	0.00	0.00	0.00	0.02	0.03	0.05	0.00	0.00	0.00	1.77	0.61	2.38	0.13	0.01	0.15	2.57	1.92	0.66
ARCHITECTURE AND CONSTRUCTION	0.03	0.00	0.03	0.98	0.33	1.31	0.05	0.01	0.06	0.66	0.27	0.93	0.52	0.09	0.61	2.94	2.25	0.69
TRANSPORT SERVICES	0.00	0.00	0.00	2.21	1.21	3.43	0.00	0.00	0.00	0.19	1.02	1.22	0.00	0.00	0.00	4.64	2.41	2.24
JOURNALISM AND INFORMATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.09	0.30	0.00	0.00	0.00	0.30	0.20	0.09
EDUCATION	0.00	0.00	0.00	0.03	0.03	0.07	0.00	0.00	0.00	0.17	0.31	0.48	0.00	0.00	0.00	0.54	0.20	0.34
ENGINEERING AND ENGINEERING TRADES	1.03	0.08	1.11	6.41	0.80	7.21	0.34	0.09	0.43	12.34	2.33	14.68	0.95	0.07	1.02	24.45	21.08	3.37
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	0.00	0.00	0.00	3.37	2.42	5.79	0.19	0.16	0.35	2.68	1.86	4.53	0.03	0.15	0.18	10.86	6.28	4.58
MANUFACTURING AND PROCESSING	0.07	0.05	0.12	0.22	0.69	0.92	0.03	0.01	0.04	0.05	0.09	0.13	0.08	0.22	0.30	1.51	0.45	1.06
PERSONAL SERVICES	0.99	2.14	3.13	1.67	4.96	6.63	0.21	0.84	1.05	1.84	4.63	6.47	0.07	0.35	0.42	17.69	4.77	12.92
BUSINESS AND ADMINISTRATION	0.07	0.05	0.12	5.91	10.43	16.34	0.00	0.00	0.00	2.32	4.22	6.54	0.95	0.59	1.54	24.54	9.25	15.29
AGRICULTURE	0.03	0.04	0.07	0.30	0.15	0.45	0.02	0.02	0.03	0.47	0.18	0.66	0.00	0.00	0.00	1.20	0.81	0.39
BASIC PROGRAMMES AND QUALIFICATIONS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.00	0.00	0.00	0.03	0.01	0.02
BIOLOGICAL AND RELATED HEALTH SCIENCES	0.00	0.00	0.00	0.02	0.17	0.19	0.00	0.00	0.00	0.58	0.71	1.29	0.00	0.00	0.00	1.48	0.60	0.88
ENVIRONMENT	0.00	0.00	0.00	0.28	0.19	0.47	0.00	0.00	0.00	0.88	0.91	1.79	0.00	0.00	0.00	2.26	1.16	1.10
HEALTH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.45	1.11	0.00	0.00	0.00	1.11	0.66	0.45
VETERINARY	0.00	0.00	0.00	0.42	0.17	0.60	0.00	0.00	0.00	0.30	0.09	0.39	0.00	0.00	0.00	0.99	0.73	0.26
LANGUAGES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.23	0.41	0.00	0.00	0.00	0.41	0.18	0.23
WELFARE	0.00	0.00	0.00	0.28	0.51	0.79	0.00	0.00	0.00	0.45	1.11	1.55	0.00	0.00	0.00	2.34	0.72	1.62
PHYSICAL SCIENCES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.02	0.00	0.01
SECURITY SERVICES	0.00	0.00	0.00	0.02	0.03	0.04	0.00	0.00	0.00	0.03	0.03	0.07	0.00	0.00	0.00	0.11	0.05	0.06
<b>TOTALS</b>	<b>2.22</b>	<b>2.36</b>	<b>4.59</b>	<b>22.15</b>	<b>22.12</b>	<b>44.27</b>	<b>0.84</b>	<b>1.12</b>	<b>1.97</b>	<b>25.79</b>	<b>19.17</b>	<b>44.96</b>	<b>2.74</b>	<b>1.48</b>	<b>4.22</b>	<b>100.00</b>	<b>53.74</b>	<b>46.26</b>

## **2.4 NATIONAL YOUTH SERVICE INSTITUTIONS**

National Youth Service (NYS) was established in 1973 and was re-launched in 1995 after a 12-year break amidst major concerns about the high level of youth unemployment, academic under-achievement, lack of training opportunities for the young people and their escalating trend towards anti-social behavior. The organization aims at equipping youth with the necessary life coping skills to foster their personal and career development as well as to enhance their contribution to society and national development. The faculties under the National Youth Service are: School of Engineering, School of Agribusiness, School of Construction, School of Hospitality, School of Fashion, School of Enterprise and Technology, School of Public Duty and School of Oil and Gas.

Through the Corps programme, NYS is able to influence young people through emphasis on behavior modification, volunteerism/patriotism, and career development. Corps Programmes include: Early Childhood Education (ECD), Teacher's Aides, Health Promotion Facilitators, Clerical Administration, Environmental Aides, Sales and Administration and Customer care.

### **2.4.1 Summary of Total Number of Intakes by Programme and Sex 2019-2021**

Table 12 presents a summary of total number of intakes by programme and sex in National Youth Service Institutions for the years 2019 to 2021. During the period under review, Transport Services had the highest number of intakes at 37.60 percent, followed by Business Administration at 19.03 percent. Personal Services Programme had the lowest number of intakes at 10.17 percent.

The survey showed that the number of intakes in Transport Services increased in the year 2020 by 43.93 and decreased by 56.28 percent in the year 2021. Similarly, the total number of intakes in Manufacturing and Processing increased by 17.44 percent in 2020 and decreased by 21.48 percent in 2021.

Male had the highest number of intakes in the period under review in Transport Services, Information and Communications Technology and Engineering and Engineering Trades. Female



had the highest number of intakes in Personal Services and Manufacturing and Processing Programmes.

**Table 12: Summary of Intakes by Programme and Sex in the National Youth Service, 2019-2021**

NATIONAL YOUTH SERVICE INTAKE									
PROGRAMME	2019			2020			2021		
	% M	%F	%T	% M	% F	%T	% M	%F	% T
BUSINESS AND ADMINISTRATION	13.50	10.60	24.20	0.00	0.00	0.00	15.30	17.60	32.90
ENGINEERING AND ENGINEERING TRADES	9.90	7.60	17.50	0.00	0.00	0.00	16.90	8.20	25.20
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	9.00	5.80	14.80	0.00	0.00	0.00	8.40	6.00	14.40
MANUFACTURING AND PROCESSING	3.10	8.50	11.60	0.70	28.30	29.00	0.90	6.60	7.50
PERSONAL SERVICES	0.00	4.90	4.90	0.00	0.00	0.00	0.40	4.90	5.30
TRANSPORT SERVICES	21.70	5.40	27.10	58.00	13.00	71.00	12.50	2.20	14.70
TOTALS	57.20	42.80	100.10	58.70	41.30	100.00	54.40	45.50	100.00

#### 2.4.2 Summary of Total Number of Outturns by Programme and Sex in National Youth Service Institutions 2019-2021

Table 13 below presents a summary of the total number of outturns by programme and Sex in National Youth Service Institutions for the years 2019 to 2021. During the reference period, Business and Administration had the highest Outturns at 43.21 percent, followed by Transport Services at 22.85 percent. The programme with the lowest number of outturns was Manufacturing and Processing at 3.79 percent.

The number of outturns in Transport Services dropped by 51.17 percent in the year 2020 and by 0.45 percent in the year 2021, while those in Business Administration programme dropped by 16.54 percent in the year 2021.

Male registered the highest number of outturns during the period under review. Female outturns were more in Personal services and Manufacturing and Processing and Information and Communication Technology.

**Table 13: Summary of Outturns by Programme and Sex in the National Youth Service, 2019-2021**

NATIONAL YOUTH SERVICE OUTTURNS 2019-2021									
PROGRAMME	2019			2020			2021		
	%M	%F	%T	%M	%F	%T	%M	%F	%T
BUSINESS AND ADMINISTRATION	0.00	0.00	0.00	29.00	30.70	59.70	23.00	20.20	43.20
ENGINEERING AND ENGINEERING TRADES	0.00	0.00	0.00	0.00	0.00	0.00	8.50	4.20	12.70
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	0.00	0.00	0.00	0.00	0.00	0.00	2.20	2.70	5.00
MANUFACTURING AND PROCESSING	0.50	11.20	11.70	0.00	0.00	0.00	1.60	2.20	3.80
PERSONAL SERVICES	2.70	11.20	13.80	5.40	11.60	17.00	5.40	7.20	12.50
TRANSPORT SERVICES	59.60	14.90	74.50	20.20	3.10	23.30	19.60	3.30	22.80
<b>TOTALS</b>	<b>62.80</b>	<b>37.30</b>	<b>100.00</b>	<b>54.60</b>	<b>45.40</b>	<b>100.00</b>	<b>60.30</b>	<b>39.80</b>	<b>100.00</b>

### 2.4.3 Outturns by Programme, level and Sex in National Youth Service Institutions, 2019

Table 14 presents a summary of the total number of outturns by programme, level and sex in National Youth Service Institutions in the year 2019. During the period under review, 62.77 percent of the total number of outturns were male, while 37.23 percent were female.

Transport Services programme had the highest number of outturns at 74.47 percent, followed by personal Services at 13.83 percent. Manufacturing and Processing programme had the lowest number of outturns at 11.70 percent.

*Table 14: Outturns by Programme, level and Sex in National Youth Service Institutions, 2019*

NYS 2019 Outturns by Gender, Programme and Educational Levels							
PROGRAMMES	ARTISAN				%SUBTM	%SUBTF	%GRANDT
	%M	%F	%T	TOTAL			
MANUFACTURING AND PROCESSING	0.53	11.17	11.70	11.70	0.53	11.17	11.70
PERSONAL SERVICES	2.66	11.17	13.83	13.83	2.66	11.17	13.83
TRANSPORT SERVICES	59.57	14.89	74.47	74.47	59.57	14.89	74.47
TOTALS	62.77	37.23	100.00	100.00	62.77	37.23	100.00

#### 2.4.4 Outturns by Programme and Sex in National Youth Service Institutions, 2020

Table 15 below presents a summary of the total number of outturns by programme and sex in National Youth Service Institutions for the year 2022. 54.55 percent of the total number of outturns in NYS Institutions in 2020 were male. The programme with the highest number of outturns in the period under review was Business Administration at 59.66, followed by Transport Services at 23.30 percent. The programme with the lowest number of outturns was Personal Services at 17.05 percent.

Diploma level had the highest number of outturns at 52.84 percent, followed by Artisan level at 28.69 percent while Certificate level had the lowest number of outturns at 18.47 percent.

Female outturns outnumbered male outturns in Diploma and Certificate GTT1 levels at 27.56 and 9.38 percent respectively. Male had the highest number of outturns at the Artisan level at 20.17 percent and Certificate level at 9.09 percent.

*Table 15: Outturns by Programme and Sex in National Youth Service Institutions, 2020*

NYS 2020 Outturns by Gender, Programme and Educational Levels															
PROGRAMMES	ARTISAN			CERTIFICATE			CRAFT			DIPLOMA			%SUBTM	%SUBTF	%GRANDT
	%M	%F	%T	%M	%F	%T	%M	%F	%T	%M	%F	%T			
BUSINESS AND ADMINISTRATION	0.00	0.00	0.00	9.09	9.38	18.47	0	0.00	0.00	19.89	21.31	41.19	28.98	30.68	59.66
PERSONAL SERVICES	0.00	5.40	5.40	0.00	0.00	0.00	0	0.00	0.00	5.40	6.25	11.65	5.40	11.65	17.05
TRANSPORT SERVICES	20.17	3.13	23.30	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	20.17	3.13	23.30
TOTALS	20.17	8.52	28.69	9.09	9.38	18.47	0	0.00	0.00	25.28	27.56	52.84	54.55	45.45	100.00

## 2.4.5 Outturns by Programme, level and Sex in National Youth Service Institutions, 2021

Table 16 below presents a summary of the total number of outturns by programme, level and sex in National Youth Service Institutions in the year 2021. In the period under review, 64.70 percent of the total number of outturns were male, while 35.30 percent were female. The programme with the highest number of outturns was Business Administration at 47.69 followed by Transport services at 25.22 percent. Information and Communication Technology programme had the lowest number of outturns at 5.48 percent.

Diploma level had the highest number of outturns at 30.84 percent, followed by Artisan at 27.23 percent. Craft level had the lowest number of outturns at 19.45 percent. Male registered the highest number of outturns at all levels.

**Table 16: Outturns by Programme, level and Sex in National Youth Service Institutions, 2021**

NYS 2021 Outturns by Gender, Programme and Educational Levels															
PROGRAMMES	ARTISAN			CERTIFICATE			CRAFT			DIPLOMA					
	%M	%F	%T	%M	%F	%T	%M	%F	%T	%M	%F	%T	%SUBTM	%SUBTF	%GRANDT
BUSINESS AND ADMINISTRATION	0.00	0.00	0.00	14.41	8.07	22.48	0.00	0.00	0.00	10.95	14.27	25.22	25.36	22.33	47.69
PERSONAL SERVICES	0.29	1.73	2.02	0.00	0.00	0.00	0.00	0.00	0.00	5.62	0.00	5.62	5.91	1.73	7.64
TRANSPORT SERVICES	21.61	3.60	25.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.61	3.60	25.22
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	0.00	0.00	0.00	0.00	0.00	0.00	2.45	3.03	5.48	0.00	0.00	0.00	2.45	3.03	5.48
ENGINEERING AND ENGINEERING TRADES	0.00	0.00	0.00	0.00	0.00	0.00	9.37	4.61	13.98	0.00	0.00	0.00	9.37	4.61	13.98
TOTALS	21.90	5.33	27.23	14.41	8.07	22.48	11.82	7.64	19.45	16.57	14.27	30.84	64.70	35.30	100.00

## **2.5 VOCATIONAL TRAINING CENTRES**

These institutions fall under the mandate of the County Governments. Vocational Training Centers offer courses leading to the award of Artisan, Craft and Certificate level certifications. However, some of the VTCs have introduced Diploma level Courses.

### **2.5.1 Summary of total number of intakes by programme and sex in Vocational Training Centers, 2019-2021**

Table 17 Presents a summary of total number of intakes by programme and Sex in Vocational Training Centers for the years 2019 to 2021.

Languages registered the highest number of intakes at 37.19 percent, followed by Personal Services at 20.80 percent and Information Communications Technology had 11.33. The programmes with the lowest number of intakes were Journalism and information, Education and Humanities (except languages), at less than 1 percent each. Architecture and Construction was the only programme that registered a progressive decline in the number of intakes for the period under review.

Males had significant higher intake than female in Arts, Business Administration and Engineering and Engineering Trades Programmes while female intake was higher in Personal Services, Languages and Information Communication Technology. The survey showed that female recorded the highest number of intakes in the period under review.

**Table 17: Summary of Total Number of Intakes by Programme and Sex in Vocational Training Centers, 2019-2021**

<b>INTAKE TREND IN VOCATIONAL TRAINING INSTITUTES</b>									
<b>PROGRAMME</b>	<b>2019</b>			<b>2020</b>			<b>2021</b>		
	<b>%MALE</b>	<b>%FEMALE</b>	<b>%TOTAL</b>	<b>% MALE</b>	<b>% FEMALE</b>	<b>%TOTAL</b>	<b>% MALE</b>	<b>%FEMALE</b>	<b>%TOTAL</b>
ARCHITECTURE AND CONSTRUCTION	1.14	0.63	1.76	0.89	0.19	1.07	0.49	0.16	0.66
ARTS	6.80	2.82	9.62	3.26	1.03	4.29	7.12	2.39	9.52
BUSINESS AND ADMINISTRATION	2.33	1.99	4.32	2.87	2.68	5.55	2.59	2.44	5.03
EDUCATION	0.08	0.20	0.28	0.33	0.35	0.68	0.18	0.25	0.43
ENGINEERING AND ENGINEERING TRADES	4.83	0.78	5.60	2.70	0.64	3.34	5.51	2.14	7.65
HEALTH	0.36	1.02	1.38	0.16	0.54	0.70	0.13	1.18	1.32
HUMANITIES (EXCEPT LANGUAGES)	0.12	0.04	0.16	0.19	0.04	0.23	0.07	0.00	0.07
HYGIENE AND OCCUPATIONAL HEALTH SERVICES	0.17	0.25	0.43	0.16	0.25	0.41	0.16	0.55	0.72
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	4.97	5.80	10.77	6.12	6.48	12.60	5.18	6.15	11.33
JOURNALISM AND INFORMATION	0.25	0.21	0.47	0.25	0.21	0.45	0.28	0.21	0.49
LANGUAGES	16.86	23.30	40.16	21.86	32.42	54.28	15.39	21.80	37.19
MANUFACTURING AND PROCESSING	0.59	0.99	1.58	0.10	0.89	0.99	0.06	0.79	0.85
PERSONAL SERVICES	2.69	16.03	18.71	3.01	9.67	12.68	2.77	18.03	20.80
PHYSICAL SCIENCES	0.00	0.00	0.00	0.19	0.06	0.25	0.51	0.10	0.61
SECURITY SERVICES	0.92	0.76	1.68	0.33	0.23	0.56	0.55	0.27	0.82
TRANSPORT SERVICES	0.49	0.41	0.91	0.00	0.00	0.00	0.24	0.30	0.54
WELFARE	0.61	1.55	2.17	0.62	1.30	1.92	0.57	1.41	1.97
<b>TOTAL</b>	<b>43.22</b>	<b>56.78</b>	<b>100.00</b>	<b>43.04</b>	<b>56.96</b>	<b>100.00</b>	<b>41.82</b>	<b>58.18</b>	<b>100.00</b>

### 2.5.2 Summary of Total Outturns by Programme and Sex in Vocational Training Centers ,2019-2021

Table 18 presents a summary of the total number of outturns by programme and sex in Vocational Training Centers for the years 2019 to 2021. Male outturns were higher than for female in the year 2019, while female outturns were higher in the subsequent years.

Engineering and Engineering Trades recorded the highest number of outturns in 2019 at 17.76 percent while Business Administration Programme had the highest outturns in 2020 and 2021 at 24.50 and 23.77 percent respectively. Health Programme had the lowest number of outturns in the year 2021 at 0.14 percent.

The number of outturns in Business Administration increased by 10.07 percent in the year 2020 and dropped by 0.73 in the year 2021. Similarly, the number of outturns in Engineering and Engineering Trades increased by 0.32 percent in the year 2020 and decreased by 7.39 percent in the year 2021. There was a steady increase in the number of outturns in Personal Services by 1.69 and 6.38 percent in the years 2020 and 2021 respectively.

**Table 18: Outturns by programme, level and sex in Vocational Training Centers, 2019-2021**

OUTTURNS OF VOCATIONAL TRAINING INSTITUTES									
PROGRAMME	2019			2020			2021		
	%MALE	%FEMALE	%TOTAL	% MALE	% FEM	%TOTAL	% MALE	%FEMALE	%TOTAL
ARCHITECTURE AND CONSTRUCTION	1.04	4.04	5.08	1.05	0.55	1.59	0.37	0.37	0.75
ARTS	6.49	1.84	8.34	2.5	1	3.51	6.11	2.28	8.39
BUSINESS AND ADMINISTRATION	5.56	8.87	14.43	7.38	17.12	24.5	6.72	17.05	23.77
EDUCATION	0.11	0.24	0.35	0.41	0.64	1.05	0.24	0.37	0.61
ENGINEERING AND ENGINEERING TRADES	13.95	3.31	17.26	14.34	3.23	17.58	8.32	1.87	10.19
HEALTH	0	0	0	0	0	0	0.03	0.1	0.14
HUMANITIES (EXCEPT LANGUAGES)	0	0	0	0	0	0	0.41	0.07	0.48
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	7.67	8.42	16.09	9.2	8.11	17.3	9.34	10.53	19.86
LANGUAGES	4.41	2.86	7.27	4.05	5.51	9.56	3.97	3.74	7.71
MANUFACTURING AND PROCESSING	4.25	2.83	7.08	2.5	2.82	5.33	1.02	2.78	3.8
PERSONAL SERVICES	3.79	9.09	12.88	4.51	10.06	14.57	2.92	18.03	20.95
PHYSICAL SCIENCES	0	0	0	0.23	0	0.23	0.85	0.07	0.92
SECURITY SERVICES	4.54	3.1	7.64	0	0	0	0	0	0
TRANSPORT SERVICES	0.69	0.8	1.5	0	0	0	0.31	0.17	0.48
WELFARE	1.58	0.51	2.08	3.1	1.68	4.78	1.22	0.75	1.97
TOTALS	54.09	45.91	100	49.27	50.73	100	41.83	58.17	100

### 2.5.3 Outturns by programme, level and sex in Vocational Training Centers, 2019

Table 19 below presents the total number of outturns by programme and sex in Vocational Training Centers for the year 2019. During the period under review, 65.26 percent of the total number of outturns were male while female accounted for 34.74 percent.

The programme that had the highest number of outturns was Engineering and Engineering trades at 39.11 percent, followed by Information and Communication Technologies (ICTs) and Business Administration at 11.07 and 10.93percent respectively. The programme that had the lowest number of outturns was Education at 0.26 percent, followed by Transport services at 0.98perect and Welfare at 1.58 percent.

It can be observed that Certificate level had the highest number of outturns at 38.13 percent followed closely by Craft level at 37.24 percent and Diploma at 19.9 percent. Artisan level recorded the lowest outturns during the period at 2.03 percent.

Male had more outturns in Certificate, Craft and Diploma levels than the female, while female had more outturns than the male in Artisan and Certificate GTT1 levels.

**Table 19: Outturns by programme, level and sex in Vocational Training Centers in 2019**

Vocational Colleges 2019 Outturns by Gender, Programme and Educational Levels																			
PROGRAMMES	ARTISAN			CERTIFICATE			CRAFT			DIPLOMA			CERTIFICATE 1GTT1			GRANDTOTAL			
	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	TOTALS	%TOTAL
ARTS	0.00	0.00	0.00	4.00	0.91	4.92	0.00	0.00	0.00	0.83	0.35	1.18	0.00	0.12	0.12	4.84	1.38	306.00	6.22
ARCHITECTURE AND CONSTRUCTION	0.00	0.00	0.00	0.00	0.00	0.00	0.77	2.91	3.68	0.00	0.00	0.00	0.02	0.16	0.18	0.79	3.07	190.00	3.86
EDUCATION	0.00	0.00	0.00	0.08	0.18	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.18	13.00	0.26
ENGINEERING AND ENGINEERING TRADES	0.35	0.33	0.67	1.54	0.91	2.46	28.89	0.26	29.15	5.36	0.75	6.12	0.47	0.24	0.71	36.61	2.50	1925.00	39.11
BUSINESS AND ADMINISTRATION	0.24	0.14	0.39	2.95	5.57	8.51	0.00	0.00	0.00	0.98	0.98	1.95	0.06	0.02	0.08	4.23	6.70	538.00	10.93
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	0.00	0.00	0.00	3.88	6.22	10.10	0.00	0.00	0.00	0.81	0.14	0.95	0.02	0.00	0.02	4.71	6.36	545.00	11.07
MANUFACTURING AND PROCESSING	0.00	0.12	0.12	1.75	0.47	2.21	0.75	1.18	1.93	0.65	0.22	0.87	0.04	0.12	0.16	3.19	2.11	261.00	5.30
LANGUAGES	0.00	0.00	0.00	3.29	2.13	5.42	0.06	0.04	0.10	0.00	0.00	0.00	0.00	0.00	0.00	3.35	2.17	272.00	5.53
WELFARE	0.00	0.00	0.00	0.06	0.14	0.20	0.00	0.00	0.00	1.14	0.24	1.38	0.00	0.00	0.00	1.20	0.39	78.00	1.58
PERSONAL SERVICES	0.16	0.28	0.45	1.61	2.44	4.04	0.26	2.11	2.38	0.08	1.65	1.73	0.33	0.43	0.75	2.44	6.91	460.00	9.35
SECURITY SERVICES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45	2.36	5.81	0.00	0.00	0.00	3.45	2.36	286.00	5.81
TRANSPORT SERVICES	0.37	0.61	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.61	48.00	0.98
TOTALS	1.12	1.48	2.60	19.16	18.98	38.13	30.74	6.50	37.24	13.31	6.68	19.99	0.93	1.10	2.03	65.26	34.74	4922.00	100.00

#### 2.5.4 Outturns by programme, level and Sex in Vocational Training Centers in 2020



Table 20 below presents the total number of outturns by programme, level and sex in Vocational Training Centres in the year 2020. Out of the total number of outturns in 2020, 55.34 percent were female.

The programme that had the highest number of outturns was Business Administration at 31.85 percent, followed by Engineering and Engineering Trades at 17.83 percent and Personal Services at 13.9 percent. The programme with the lowest outturns was physical sciences at 0.23 percent, followed by Education at 1.07 percent and Architecture and Construction at 1.11 percent.

The survey shows that Certificate level had the highest number of outturns at 46.66 percent followed by Diploma level at 12.26 percent. while the remaining levels registered outturns at less than 4 percent each. Artisan level had the lowest number of outturns at 2.97 percent.

Female recorded more outturns than male in Artisan, Certificate and Craft levels. Male had more outturns than female in Diploma and Certificate GTT1 levels.

***Table 20: Outturns by programme, level and Sex in Vocational Training Centres in 2020***

Vocational Colleges 2020 Outturns by Gender, Programme and Educational Levels																			
PROGRAMMES	ARTISAN			CERTIFICATE			CRAFT			DIPLOMA			CERTIFICATE 1 GTT1			GRAND TOTAL			
	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	TOTALS	%TOTAL
ARTS	0.00	0.00	0.00	0.60	0.65	1.25	0.00	0.00	0.00	0.28	0.28	0.56	0.00	0.00	0.00	0.88	0.93	39.00	1.81
ARCHITECTURE AND CONSTRUCTION	0.00	0.00	0.00	0.37	0.37	0.74	0.09	0.09	0.19	0.00	0.00	0.00	0.09	0.09	0.19	0.56	0.56	24.00	1.11
EDUCATION	0.00	0.00	0.00	0.37	0.65	1.02	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.42	0.65	23.00	1.07
BUSINESS AND ADMINISTRATION	0.37	0.28	0.65	5.76	22.75	28.51	0.00	0.00	0.00	1.21	1.30	2.51	0.09	0.09	0.19	7.43	24.42	686.00	31.85
ENGINEERING AND ENGINEERING TRADES	0.65	0.37	1.02	8.03	1.53	9.56	1.16	0.14	1.30	3.67	0.65	4.32	1.11	0.51	1.62	14.62	3.20	384.00	17.83
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	0.00	0.00	0.00	5.80	6.50	12.30	0.00	0.00	0.00	0.28	0.09	0.37	0.00	0.00	0.00	6.08	6.59	273.00	12.67
MANUFACTURING AND PROCESSING	0.09	0.23	0.32	1.95	1.30	3.25	0.05	0.56	0.60	0.14	0.05	0.19	0.32	0.19	0.51	2.55	2.32	105.00	4.87
PHYSICAL SCIENCES	0.00	0.00	0.00	0.23	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	5.00	0.23
LANGUAGES	0.00	0.00	0.00	4.09	5.48	9.56	0.05	0.14	0.19	0.00	0.00	0.00	0.00	0.00	0.00	4.13	5.62	210.00	9.75
WELFARE	0.00	0.00	0.00	0.19	0.42	0.60	0.00	0.00	0.00	2.97	1.30	4.27	0.00	0.00	0.00	3.16	1.72	105.00	4.87
PERSONAL SERVICES	0.19	0.79	0.97	4.09	7.01	11.10	0.09	1.39	1.49	0.00	0.00	0.00	0.23	0.14	0.37	4.60	9.33	300.00	13.93
TOTALS	1.30	1.67	2.97	31.48	46.66	78.13	1.44	2.32	3.76	8.59	3.67	12.26	1.86	1.02	2.88	44.66	55.34	2154.00	100.00

### 2.5.5 Outturns by Programme, level and Sex in Vocational Training Centers in 2021

Table 21 below presents the total number of outturns by programme, level and sex in Vocational Training Centres in the year 2021. 58.30 percent of the total number of outturns for the year under review were female while 41.70 percent were male.

The programme that had the highest number of outturns was Business Administration at 23.99 percent, followed by Personal Services and Information and Communication Technologies (ICT) at 20.75 and 20.25 respectively. The programme with the lowest number of outturns was Health at 0.14 percent, followed by Transport Services and Humanities (except Languages) at 0.48 percent each.

Certificate level had the highest number of outturns at 71.18 percent, followed by Diploma at 15.22 percent. Certificate GTT1 had the lowest number of outturns at 1.3 percent. Female had more outturns than male at all levels.

**Table 21: Outturns by programme, level and Sex in Vocational Training Centres in 2021**

Vocational Colleges 2021 Outturns by Gender, Programme and Educational Levels																			
PROGRAMMES	ARTISAN			CERTIFICATE			CRAFT			DIPLOMA			CERTIFICATE 1 GTT1			GRANDTOTAL			
	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	%TOTAL	%MALE	%FEMALE	TOTALS	%TOTAL
HEALTH	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.00	0.03	0.07	0.10	0.00	0.00	0.00	0.03	0.10	4.00	0.14
ARTS	0.00	0.00	0.00	5.07	1.66	6.73	0.00	0.00	0.00	0.97	0.41	1.38	0.00	0.17	0.17	6.04	2.24	240.00	8.28
HUMANITIES (EXCEPT LANGUAGES)	0.00	0.00	0.00	0.10	0.00	0.10	0.00	0.00	0.00	0.31	0.07	0.38	0.00	0.00	0.00	0.41	0.07	14.00	0.48
ARCHITECTURE AND CONSTRUCTION	0.00	0.00	0.00	0.14	0.31	0.45	0.24	0.07	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.38	22.00	0.76
EDUCATION	0.00	0.00	0.00	0.24	0.35	0.59	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.00	0.24	0.38	18.00	0.62
BUSINESS AND ADMINISTRATION	0.31	0.14	0.45	5.70	15.05	20.75	0.00	0.00	0.00	0.83	1.93	2.76	0.00	0.03	0.03	6.83	17.16	695.00	23.99
ENGINEERING AND ENGINEERING TRADES	0.24	0.17	0.41	3.80	0.35	4.14	0.24	0.03	0.28	3.83	0.90	4.73	0.31	0.38	0.69	8.42	1.83	297.00	10.25
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	0.00	0.00	0.00	9.22	10.01	19.23	0.00	0.00	0.00	0.21	0.59	0.79	0.00	0.00	0.00	9.42	10.60	580.00	20.02
MANUFACTURING AND PROCESSING	0.21	0.31	0.52	0.45	1.04	1.48	0.03	1.07	1.10	0.17	0.31	0.48	0.07	0.10	0.17	0.93	2.83	109.00	3.76
PHYSICAL SCIENCES	0.00	0.00	0.00	0.55	0.07	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.07	18.00	0.62
LANGUAGES	0.00	0.00	0.00	3.97	3.62	7.59	0.07	0.17	0.24	0.00	0.00	0.00	0.00	0.00	0.00	4.04	3.80	227.00	7.84
WELFARE	0.00	0.00	0.00	0.10	0.21	0.31	0.00	0.00	0.00	1.14	0.55	1.69	0.00	0.00	0.00	1.24	0.76	58.00	2.00
PERSONAL SERVICES	0.14	0.69	0.83	2.17	6.97	9.15	0.14	7.46	7.59	0.14	2.73	2.87	0.17	0.14	0.31	2.76	17.98	601.00	20.75
TRANSPORT SERVICES	0.24	0.10	0.35	0.00	0.00	0.00	0.14	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.10	14.00	0.48
TOTALS	1.14	1.42	2.55	31.52	39.66	71.18	0.86	8.80	9.67	7.63	7.59	15.22	0.55	0.83	1.38	41.70	58.30	2897.00	100.00

## 2.6 COMMERCIAL COLLEGES

### 2.6.1 Summary of Total Number of Intakes by Programme and Sex in Commercial Colleges, 2019-2021

Table 22 below presents a summary of total number of intakes by programme and sex in commercial colleges for the years 2019 to 2021. Business Administration had the highest number of intakes at 71.93 percent, followed by Personal Services at 10.89 percent. Education, Agriculture and Construction and Languages had less than 10 percent.

The number of intakes in Business and Administration decreased by 9.32 in 2020 and by 10.83 percent 2021. Intakes in Personal Services dropped by 0.16 percent in 2020 and increased by 6.64 percent in 2021. There was an increase in the number of intakes in Transport Services programme by 7.66 in the year 2020 and by 1.03 percent in the year 2021.

In Business Administration programme, female registered a higher number intake than male in 2019 and 2020, while male intakes were more in 2021. Female registered a higher intake in Personal Services programme than male. In Transport Services programme, male registered a higher intake than female. Male had the lowest number of intakes in Languages while female registered the lowest number of intakes in Architecture and Construction.

During the period under review, female had the highest number of intakes at 53.60 percent.

**Table 22: Summary of Total Number of Intakes by Programme and Sex in Commercial Colleges, 2019-2021**

PROGRAMME	M2019	F2019	TOTAL%	M2020	F2020	TOTAL%	M2021	F2021	TOTAL%
ARCHITECTURE AND CONSTRUCTION	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.03	0.20
ARTS	0.70	0.35	1.05	0.32	0.51	0.83	0.73	0.60	1.33
BUSINESS AND ADMINISTRATION	41.89	50.16	92.05	39.61	43.12	82.73	36.42	35.51	71.93
EDUCATION	0.01	0.05	0.06	0.00	0.02	0.02	0.01	0.02	0.03
ENGINEERING AND ENGINEERING TRADES	0.45	0.07	0.52	0.50	0.07	0.57	1.21	0.12	1.33
HYGIENE AND OCCUPATIONAL HEALTH SERVICES	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.21	0.34
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	0.25	0.11	0.36	0.98	0.74	1.72	1.62	1.23	2.85
LANGUAGES	0.00	0.00	0.00	0.02	0.01	0.03	0.03	0.07	0.10
MANUFACTURING AND PROCESSING	0.04	0.25	0.29	0.06	0.85	0.91	0.06	0.99	1.05
PERSONAL SERVICES	0.60	3.81	4.41	0.64	3.61	4.25	1.26	9.63	10.89
TRANSPORT SERVICES	0.82	0.44	1.26	5.04	3.88	8.92	5.61	4.34	9.95
NOT STATED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL</b>	<b>44.76</b>	<b>55.24</b>	<b>100.00</b>	<b>47.17</b>	<b>52.81</b>	<b>100.00</b>	<b>47.25</b>	<b>52.75</b>	<b>100.00</b>

### **2.6.2 Summary of Total outturn by Programme and Sex in Commercial Colleges, 2019-2021**

Table 23 shows a summary of total number of outturns by programme and sex for Commercial Colleges for the years 2019 to 2021. Business and Administration programme had the highest number of outturns at 61.03 percent, followed by Personal Services, and Information and Communication Technologies (ICT) at 11.84 and 6.85 percent respectively.

The number of outturns in Business Administration dropped by 6.24 percent and 14.87 percent from 2019 to 2020 and 2020 to 2021 respectively. Outturns in Personal Services dropped by 3.77 percent from 2019 to 2020 and increased by 8.38 in 2021. The number of outturns in Information and Communication Technologies (ICT) programme recorded a decline of 4.66 percent in the year 2020 and an increase of 1.93 percent in 2021.

The programme with the lowest number of outturns was Agriculture which did not record outturns in 2019 and had 0.05 percent in 2020 and 2021 followed by Architecture and Construction that only reported outturns in 2021 at 0.18 percent.

The number of male outturns was more in Business and Administration and Journalism and Information programmes. Female had more outturns than the male in Personal Services. The lowest number of outturns for both male and female was in Agriculture and Architecture and Construction programmes. During the period under review, females had the higher outturns at 52.90 percent while males had 47.10 percent

***Table 23: Summary of Total Outturns by Programme and Sex in Commercial Colleges, 2019-2021***

PROGRAMME	M2019	F2019	TOTAL%	M2020	F2020	TOTAL%	M2021	F2021	TOTAL%
AGRICULTURE	0.00	0.00	0.00	0.00	0.05	0.05	0.03	0.03	0.05
ARCHITECTURE AND CONSTRUCTION	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.18
ARTS	0.02	0.22	0.24	0.25	0.22	0.46	0.26	0.42	0.68
BUSINESS AND ADMINISTRATION	38.67	31.48	70.15	27.04	36.88	63.91	22.52	26.52	49.04
EDUCATION	0.00	0.15	0.15	0.00	0.05	0.05	0.00	0.05	0.05
ENGINEERING AND ENGINEERING TRADES	0.91	0.61	1.52	0.38	0.60	0.98	2.78	0.52	3.30
HYGIENE AND OCCUPATIONAL HEALTH SERVICES	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.47	0.75
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	4.33	4.98	9.31	2.76	1.89	4.65	3.69	2.89	6.58
JOURNALISM AND INFORMATION	0.43	0.09	0.52	0.79	0.57	1.37	0.86	0.55	1.40
LANGUAGES	0.00	0.00	0.00	0.05	0.03	0.08	0.05	0.08	0.13
MANUFACTURING AND PROCESSING	1.65	1.65	3.29	0.27	0.71	0.98	0.29	0.91	1.20
PERSONAL SERVICES	1.49	10.07	11.56	2.21	5.58	7.79	2.63	13.55	16.17
PHYSICAL SCIENCES	0.04	0.00	0.04	0.08	0.00	0.08	0.08	0.00	0.08
TRANSPORT SERVICES	1.17	0.50	1.67	9.81	7.96	17.77	10.84	7.85	18.69
NOT STATED	1.21	0.35	1.56	1.26	0.55	1.80	1.30	0.39	1.69
<b>TOTALS</b>	<b>49.92</b>	<b>50.08</b>	<b>100.00</b>	<b>44.92</b>	<b>55.08</b>	<b>100.0</b>	<b>45.79</b>	<b>54.21</b>	<b>100.00</b>

### 2.6.3 Outturns by Programme, Level and Sex in Commercial Colleges, 2019

Table 24 below presents the total number of outturns by programme, level and sex in Commercial colleges for the year 2019. During the year under review, 55.23 percent of the total number of outturns were female and 44.79 percent male. The Programme with the highest number of outturns was Business Administration at 92.27 percent, followed by Personal Services at 4.38 percent while Transport Services came at a distant third position at 1.11 percent. The programme that had the lowest number of outturns was Education at 0.06 percent.

Diploma level had the highest number of outturns at 57.12 percent, followed by Certificate at 33.79 percent while Certificate 1 GTT1 level had the lowest number of outturns at 0.1 percent.

**Table 24: Outturns by Programme, Level and Sex in Commercial Colleges, 2019**

PROGRAMMES	ARTISAN		CERTIFICATE		CRAFT		DIPLOMA		CERTIFICATE 1		SUB TOTAL		GRAND TOTAL
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	
ARTS	0.00	0.00	0.43	0.21	0.00	0.00	0.27	0.13	0.00	0.00	0.7	0.34	1.04
TRANSPORT SERVICES	0.00	0.00	0.51	0.23	0.00	0.00	0.10	0.18	0.08	0.02	0.69	0.43	1.11
EDUCATION	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.00	0.00	0.01	0.05	0.06
ENGINEERING AND ENGINEERING TRADES	0.28	0.06	0.06	0.00	0.00	0.00	0.08	0.01	0.00	0.00	0.42	0.07	0.50
INFORMATION AND COMMUNICATION TECHNOLOGIES	0.00	0.00	0.12	0.09	0.10	0.01	0.03	0.01	0.00	0.00	0.25	0.11	0.36
MANUFACTURING AND PROCESSING	0.01	0.11	0.00	0.00	0.00	0.00	0.03	0.14	0.00	0.00	0.04	0.25	0.30
PERSONAL SERVICES	0.15	0.53	0.28	0.82	0.10	0.49	0.06	1.95	0.00	0.00	0.59	3.79	4.38
BUSINESS AND ADMINISTRATION	1.23	5.93	16.68	14.36	0.00	0.00	24.18	29.90	0.00	0.00	42.09	50.19	92.27
<b>TOTALS</b>	<b>1.67</b>	<b>6.63</b>	<b>18.08</b>	<b>15.71</b>	<b>0.20</b>	<b>0.50</b>	<b>24.75</b>	<b>32.37</b>	<b>0.08</b>	<b>0.02</b>	<b>44.79</b>	<b>55.23</b>	<b>100.00</b>
<b>TOTAL %</b>	<b>8.3</b>		<b>33.79</b>		<b>0.7</b>		<b>57.12</b>		<b>0.1</b>		<b>100.02</b>		

#### 2.6.4 Outturns by Programme, Level and Sex in Commercial Colleges, 2020

Table 25 presents the distribution of outturns in Commercial Colleges in the year 2020. Out of the total outturns in the period under review, 52.74 percent were female while 47.26 percent were male. It can be observed that the programme that had the highest number of outturns was Business Administration at 83.36 percent followed by Transport Services at 8.94 percent. The programme that had the lowest number of outturns was Education at 0.02 percent.

Diploma level had the highest number of outturns at 54.2 percent, followed by Certificate at 40.78 percent, Artisan 3.8 percent while Certificate 1 GTT1 had the lowest number of outturns at 0.12 percent. Females had the highest outturns at all levels except at Certificate GTT1 where male outturns were high.

**Table 25: Outturns by Programme, Level and Sex in Commercial Colleges, 2020**

PROGRAMMES	ARTISAN		CERTIFICATE		CRAFT		DIPLOMA		CERTIFICATE 1 GTT1		SUB TOTAL		
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	GRAND TOTAL
ARTS	0.00	0.00	0.13	0.40	0.00	0.00	0.07	0.05	0.00	0.00	0.21	0.45	0.66
TRANSPORT SERVICES	0.00	0.00	4.85	3.74	0.00	0.00	0.09	0.15	0.10	0.02	5.03	3.91	8.94
EDUCATION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.02
ENGINEERING AND ENGINEERING TECHNOLOGY	0.48	0.07	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.50	0.07	0.58
INFORMATION AND COMMUNICATION TECHNOLOGY	0.00	0.00	0.53	0.49	0.28	0.10	0.12	0.09	0.00	0.00	0.93	0.67	1.61
LANGUAGES	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.04
MANUFACTURING AND PROCESSING	0.04	0.09	0.00	0.00	0.00	0.00	0.02	0.77	0.00	0.00	0.06	0.86	0.92
PERSONAL SERVICES	0.09	0.63	0.27	0.67	0.12	0.59	0.15	1.35	0.00	0.00	0.63	3.24	3.87
BUSINESS AND ADMINISTRATION	1.19	1.23	13.36	16.28	0.00	0.00	25.33	25.98	0.00	0.00	39.88	43.48	83.36
TOTALS	1.79	2.01	19.17	21.61	0.40	0.69	25.80	28.40	0.10	0.02	47.26	52.74	100.00
TOTAL %	3.8		40.78		1.09		54.20		0.12		100		

#### 2.6.5 Outturns by Programme, Level and Sex in Commercial Colleges, 2021

Table 26 below presents the total number of outturns by programme, level and sex in Commercial Colleges for the year 2021. During the period under review, 52.97 percent of the total number of outturns were female while 47.03 percent were male. The Programme with the highest number of outturns was Business Administration at 72.20 percent, followed by Personal Services at 10.96 percent. The programme that had the lowest number of outturns was

languages at 0.11 percent.

Diploma level had the highest number of outturns at 52.95 percent followed by Certificate at 40.55 percent, Artisan at 4.66 percent and Craft at 1.68 percent. Certificate 1 GTT1 level had the lowest number of outturns at less than 1 percent.

Female had the highest number of outturns in all levels except at Certificate 1 GTT1 level.

**Table 26: Outturns by Programme, Level and Sex in Commercial Colleges, 2021**

PROGRAMMES	ARTISAN		CERTIFICATE		CRAFT		DIPLOMA		CERTIFICATE 1		SUB TOTAL		GRAND TOTAL
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	
ARTS	0.00	0.00	0.39	0.45	0.00	0.00	0.29	0.07	0.00	0.00	0.68	0.52	1.20
TRANSPORT SERVICES	0.00	0.00	5.30	3.95	0.00	0.00	0.12	0.45	0.18	0.00	5.59	4.40	9.99
EDUCATION	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.01	0.02	0.04
ENGINEERING AND ENGINEERING TRADES	0.89	0.12	0.07	0.00	0.00	0.00	0.21	0.00	0.00	0.00	1.17	0.12	1.29
HYGIENE AND OCCUPATIONAL HEALTH SERVICES	0.00	0.00	0.12	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.21	0.33
INFORMATION AND COMMUNICATION TECHNOLOGY	0.00	0.00	1.04	0.89	0.36	0.14	0.20	0.19	0.00	0.00	1.61	1.22	2.83
LANGUAGES	0.00	0.00	0.00	0.05	0.04	0.02	0.00	0.00	0.00	0.00	0.04	0.07	0.11
MANUFACTURING AND PROCESSING	0.01	0.23	0.00	0.00	0.00	0.00	0.05	0.77	0.00	0.00	0.06	1.01	1.07
PERSONAL SERVICES	0.07	1.07	0.56	2.97	0.19	0.93	0.41	4.77	0.00	0.00	1.23	9.73	10.96
BUSINESS AND ADMINISTRATION	1.06	1.21	11.39	13.17	0.00	0.00	24.09	21.29	0.00	0.00	36.53	35.67	72.20
<b>TOTALS</b>	<b>2.03</b>	<b>2.63</b>	<b>18.87</b>	<b>21.68</b>	<b>0.59</b>	<b>1.09</b>	<b>25.38</b>	<b>27.57</b>	<b>0.18</b>	<b>0.00</b>	<b>47.03</b>	<b>52.97</b>	<b>100.00</b>
<b>TOTAL %</b>	<b>4.66</b>		<b>40.55</b>		<b>1.68</b>		<b>52.95</b>		<b>0.18</b>		<b>100</b>		



## **2.7 SKILL SHORTAGES IN LOCAL TRAINING INSTITUTIONS, 2019-2021**

### **2.7.1 Staff Skill Shortages in Local Training Institutions**

Table 27 below presents skill shortages in local learning institutions that responded to the survey. It can be observed that the optimal number of academic staff required by the institutions that participated was 3442 while an in-post of 37.17 percent was recorded. It follows therefore, that a shortfall of 62.83 percent was reported.

The programme that had the highest shortfall is Engineering and Engineering Trades at 19.67 percent, followed by Manufacturing and Processing at 11.57 percent and Architecture and Construction at 9.99 percent.

The programmes which recorded the lowest shortfall were Welfare, Transport Services and Mathematics and Statistics at 0.12 percent each. Humanities (except languages) was the only programme which did not report a shortfall

***Table 27: Staff Skill Shortages in Local Training Institutions, 2019-2021***

PROGRAMME PER STAFFING SKILL SHORTAGES IN TRAINING INSTITUTION						
PROGRAMME	OPTIMAL	INPOST			SHORTFALL	%
		MALE	FEMALE	TOTAL		
AGRICULTURE	11.00	0.00	3.00	3.00	8.00	0.25
ARCHITECTURE AND CONSTRUCTION	454.00	100.00	30.00	130.00	324.00	9.99
ARTS	69.00	18.00	24.00	42.00	27.00	0.83
BUSINESS AND ADMINISTRATION	266.00	66.00	49.00	115.00	151.00	4.66
EDUCATION	29.00	10.00	6.00	16.00	13.00	0.40
ENGINEERING AND ENGINEERING TRADES	1044.00	357.00	50.00	407.00	637.00	19.65
HEALTH	19.00	6.00	3.00	9.00	10.00	0.31
HUMANITIES (EXCEPT LANGUAGES)	10.00	6.00	4.00	10.00	0.00	0.00
INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)	256.00	78.00	86.00	164.00	92.00	2.84
JOURNALISM AND INFORMATION	19.00	1.00	1.00	2.00	17.00	0.52
LANGUAGES	51.00	5.00	6.00	11.00	40.00	1.23
MANUFACTURING AND PROCESSING	467.00	41.00	51.00	92.00	375.00	11.57
MATHEMATICS AND STATISTICS	22.00	12.00	6.00	18.00	4.00	0.12
PERSONAL SERVICES	370.00	40.00	67.00	107.00	263.00	8.11
PHYSICAL SCIENCES	63.00	22.00	8.00	30.00	33.00	1.02
SOCIAL AND BEHAVIOURAL SCIENCES	32.00	1.00	1.00	2.00	30.00	0.93
TRANSPORT SERVICES	36.00	12.00	20.00	32.00	4.00	0.12
VETERINARY	7.00	1.00	1.00	2.00	5.00	0.15
WELFARE	17.00	6.00	7.00	13.00	4.00	0.12
<b>TOTAL</b>	<b>3242.00</b>	<b>782.00</b>	<b>423.00</b>	<b>1205.00</b>	<b>2037.00</b>	<b>62.83</b>
<b>TOTAL %</b>	<b>100.00</b>	<b>24.12</b>	<b>13.05</b>	<b>37.17</b>	<b>62.83</b>	

## 2.7.2 Challenges faced by Institutions

Table 28 below shows some of the challenges faced by local training institutions. The analysis shows that majority of the institutions were faced with the challenge of low enrollment at 75.97 percent, followed by financial challenges at 63.57 percent. Inadequate physical infrastructure, shortage of staff, lack of tools and equipment and other challenges were also reported at 32.56 ,31.01 ,30.23 and 38.76 respectively.

**Table 28: Challenges faced by Institutions**

<b>CHALLENGES FACED BY INSTITUTIONS</b>			
<b>CHALLENGES</b>	<b>No of Institution</b>	<b>Total No of Intitution</b>	<b>%</b>
<b>Financial</b>	<b>82.00</b>	<b>129.00</b>	<b>63.57</b>
<b>Lack of tools and equipment</b>	<b>39.00</b>	<b>129.00</b>	<b>30.23</b>
<b>Low enrolment</b>	<b>98.00</b>	<b>129.00</b>	<b>75.97</b>
<b>Others Challenges</b>	<b>50.00</b>	<b>129.00</b>	<b>38.76</b>
<b>Physical infrustructure</b>	<b>42.00</b>	<b>129.00</b>	<b>32.56</b>
<b>Shortage of staff</b>	<b>40.00</b>	<b>129.00</b>	<b>31.01</b>

*NB: An institution could be affected by more than one challenge*

### **2.7.3 Effects of CIVID-19 on Training Institutions from 2019 to 2021**

Table 29 below presents the effects of COVID-19 on Training institutions from 2019 to 2021. During the period under review, 81.40 percent of the institutions were temporarily closed down during the COVID-19 Pandemic season, while 44.96 percent of the institutions had some of their programmes trained online. Those that reported to have laid off some of their staff were 34.11 percent .

*Table 29: Effects of Covid-19 on Training Institutions From 2019 to 2021*

<b>EFFECTS OF COVID-19</b>			
<b>Effects</b>	<b>No of Institutions</b>	<b>Total No of Intitution</b>	<b>%</b>
<b>Some of the staff have been laid off</b>	<b>44.00</b>	<b>129.00</b>	<b>34.11</b>
<b>Some training programs are done online</b>	<b>58.00</b>	<b>129.00</b>	<b>44.96</b>
<b>The institution temporarily closed down</b>	<b>105.00</b>	<b>129.00</b>	<b>81.40</b>

## **CHAPTER THREE FINDINGS**

### **National Polytechnics**

1. Engineering and Engineering Trades had the highest number of intakes at 25.92 percent,

2. Hygiene and Occupational Health Services had the lowest number of intakes at 0.51 percent.
3. During the period under review, males had the highest intakes at 60.61 percent and outturns at 53.93 percent.
4. Education had the highest number of outturns at 60.75 percent
5. Diploma level had the highest number of outturns

### **Technical Training Institutes**

1. Business Administration had the highest number of intakes at 26.85 percent
2. The programme with the lowest number of intakes was physical sciences at 0.004 (There were no intakes in 2019)
3. During the period under review, male had the highest number of intakes.
4. Personal Services had the highest number of outturns at 26.55 percent
5. The programme that had lowest outturns was Environment that had no outturns in 2019 and 2020 and only recorded 0.11 percent in 2021
6. Diploma level had the highest number of outturns

### **National Youth Service Institutions**

1. Transport Services had the highest number of intakes at 37.60 percent
2. Personal Services Programme had the lowest number of intakes at 10.17 percent.
3. Male had the highest number of intakes during the period under review
4. During the reference period, Business and Administration had the highest Outturns at 43.21 percent
5. The programme with the lowest number of outturns was Manufacturing and Processing at 3.79 percent.
6. Male registered the highest number of outturns during the period under review
7. Diploma had the highest number of outturns

### **Vocational Training Centers**

1. Languages registered the highest number of intakes at 37.19 percent
2. The programmes with the lowest number of intakes was Journalism and Information

3. Female recorded the highest number of intakes in the period under review.
4. Male outturns were higher than for female in the year 2019, while female outturns were higher in the subsequent years.
5. Certificate level had the highest number of outturns at 38.13 percent

### **Commercial Colleges**

1. Business Administration had the highest number of intakes at 71.93 percent
2. During the period under review, female had the highest number of intakes at 53.60 percent.
3. Business and Administration programme had the highest number of outturns at 61.03 percent
4. The programme with the lowest number of outturns was Agriculture which did not record outturns in 2019 and had 0.05 percent in 2020 and 2021
5. The lowest number of outturns for both male and female was in Agriculture and Architecture and Construction programmes.
6. During the period under review, females had the higher outturns at 52.90 percent while males had 47.10 percent

### **General Observations**

The following general observations were made:

1. Diploma level had the highest number of outturns in all the categories of institutions
2. A shortfall of 62.83 percent teaching staff was reported.
3. Majority of the institutions were faced with the challenges of low enrollment, inadequate finance and physical infrastructure, shortage of staff, lack of tools and equipment
4. During the period under review, 81.40 percent of the institutions were temporarily closed down during the COVID-19 Pandemic season, while 44.96 percent of the institutions had some of their programmes trained online. Those that reported to have laid off some of their staff were 34.11 percent.

## **CHAPTER FOUR**

### **CONCLUSION AND RECOMMENDATIONS**

This chapter presents conclusions and recommendations of the survey as follows: -

- i. Findings revealed that Engineering and Engineering Trades, Business and Administration, Transport Services, and Languages programmes attracted the highest numbers of students and lowest in Hygiene and Occupational Health Sciences, and Physical Sciences in majority of training institutions during the period under review. This may point at a possible prioritization of these programmes by the training institutions. This has the potential to flood the Kenya labour market with surplus skills that may not necessarily be demanded by the industry thus creating skills mismatch and unemployment. There is need for institutions responsible for registration and accreditation to encourage diversification.
- ii. There is need to carry out further research to establish why Business and Administration programme continues to attract higher numbers of trainees in TVET institutions which ordinarily would be expected to offer technical related programmes.
- iii. Majority of training institutions indicated that males had the highest number of Outturns in traditionally male dominated programmes such as Engineering, Architecture and Building while female Outturns were concentrated in Arts programmes that included Personal Services, Social Services, Manufacturing and Processing. To correct gender disparity in programmes offered in training institutions, there is need for deliberate and concerted effort to inculcate interest in females to undertake science subjects at the basic level of education and in turn increase similar numbers at the higher and middle level colleges.
- iv. Findings revealed that the number of outturns in some of the TVET training institutions was affected by the COVID-19 pandemic. This implies that there was limited expansion, thus limiting the level of intake. There is therefore need to expand intake capacities of training institutions and carry out a survey to establish the impact of online training on intake in TVET institutions.
- v. Some of the challenges cited in the TVET institutions were low enrollment, inadequate finance and physical infrastructure, shortage of staff, lack of tools and equipment. There is need for the Government to consider increasing funding in these institutions to enable them operate optimally.

- vi. A follow up survey involving industry players is hereby recommended to ascertain the adequacy of outturns being produced from the local training institutions and the quality of the knowledge and skills imparted in relation to labour market requirements.



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(For Official

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Use)

**REPUBLIC OF KENYA**

STLI/2022

**MINISTRY OF LABOUR**

**NATIONAL HUMAN RESOURCE PLANNING AND DEVELOPMENT DEPARTMENT**

**SKILLS INVENTORY**

**STUDY OF TRAINING IN LOCAL INSTITUTIONS 2022**

**INSTRUCTIONS FOR COMPLETING THIS QUESTIONNAIRE**

1. Please complete this questionnaire and return to the officer conducting this exercise or to **The Director, National Human Resource Planning & Development Department, P.O. Box 40326 00100, Nairobi**. Tel. 2729800 Ext. 4403/4363, Mobile Number - 0722698321 or visit our offices at NSSF Building Block “B”, 14<sup>th</sup> Floor.
2. Where the space provided in the questionnaire is not adequate, extra information may be attached in a separate sheet using the same format.
3. The information may also be provided in soft copy using the same format.



4. The information supplied will be treated with strict confidentiality and used for planning purposes only.

**A GENERAL PARTICULARS**

Name of the Institution -----

A1 County.....

A2 Sub- County.....

A3 Street name.....

A4 Building name and floor.....

A5 Town.....

A6 Postal address.....

A8 Postal code.....

A9 Telephone number.....

A10 Mobile phone number.....

A11 Email.....

A12 Website.....

A13 What is the category of this Institution?

1. National Polytechnics ( )

2. Institutes of Science and Technology ( )

- 3. National Youth Service ( )
- 4. Technical Training Institutes ( )
- 5. Vocational Training Centres ( )
- 6. Commercial Colleges ( )

A14. Is your institution 1.Public ( )

Or

2. Private ( )

**MODULE A: NUMBER OF OUTTURNS/GRADUATES BY PROGRAMME/COURSE, SEX AND YEAR**

S/ N o	NAME OF PROGRAMME/COURSE *	LEVEL (Diploma, Certificate, Artisan, Craft, Certificate I/GTT I)	COST (TUITION)	NUMBER OF OUTTURNS/GRADUATES BY SEX AND YEAR						
				2019		2020		2021		
				M	F	M	F	M	F	

\* Indicate for example, Diploma in Automotive Engineering, C.P.A I, National Vocational Certificate I/GTT I in Plumbing etc,

**MODULE B: ENTER THE CURRENT NUMBER OF ACADEMIC STAFF BY SKILL AREA, LEVEL AND SEX**

ent Total Number of Teaching Staff

b. Current Total number of PWD (Persons with Disability) Teaching Staff

S/No	Skill Area (Area of Specialization e.g. Accounting, mechanical engineering)	Skill Level																	
		<i>PhD</i>		<i>Masters</i>		<i>Bachelors/ Master Crafts Person I (Management Professional)</i>		<i>PGD/ Professional Master Crafts Person</i>		<i>Professional Diploma/Ma ster Crafts Person II</i>		<i>Professio nal Certificat e/Master Crafts Person III</i>		<i>National Vocational Certificate I/GTT I</i>		<i>National Vocatio al Certificat e II/GTT II</i>		<i>Nation Vocati l Certifi e III/C III</i>	
		<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	


**MODULE C: INDICATE ANY SKILL SHORTAGES IN TERMS OF SKILL AREAS AND LEVELS AS PER ESTABLISHMENT**

<i>S/No.</i>	<i>Skill Area</i>	<i>Skill Level Required*</i>	<i>Optimal</i>	<i>In post</i>		<i>Shortfall</i>	<i>Reasons for Shortfall</i>
				<i>M</i>	<i>F</i>		


*\*Skill level i.e., PhD, Masters, Bachelors, PGD, Professional Diploma, Professional Certificate, National Vocational Certificate I,*

**MODULE D: IMPACT OF COVID**

D\_1.How has covid 19 affected your institution? Please choose from options given below. More than one option is allowed

- 1. Some training programmes are done online
- e institution temporary Closed down
- me of the staff have been laid off
- duced Student enrolment

5. Any Other (Specify) .....

**MODULE E: CHALLENGES FACED BY THE INSTITUTION (TICK APPROPRIATELY)**

Do you have any challenges?

Yes

No

*choose from below list (multi-responses applicable)*

Low enrolment

Shortage of staff

Physical infrastructure

Financial

6. Lack of tools and equipment

7. Cultural beliefs

8. Others (specify)

.....  
.....  
.....  
.....

**Contact persons details**

(i) Name:

.....

(ii) Designation:

.....

(iii) Contact No:

.....

(iv) E-mail address: .....

Official Rubber stamp----- Date-----

**Thank you for participating in this exercise!**

Name of Officer administering the questionnaire.....

Signature ..... Date .....



## Appendix 2: ISCED- 1997 (and 2011) Classification

UNESCO CLASSIFICATION	Description of components
Teacher Training and Education Science	Teacher training from pre-school, kindergarten, elementary school, vocational, practical non-vocational subjects, adult education, teacher trainers and for handicapped children. General and specialized teacher training Programme Education science; curriculum development in non-vocational and vocational subjects, Educational assessment, testing and measurements, educational research, other education sciences.
Humanities and Arts	<p><b>Arts Fine Arts:</b> Drawing, Painting, Sculpture; Performing Arts: Music, Drama, Dance, Circus; Graphic and Audio-Visual Arts: Photography, Cinematography, Music Production, Radio and T.V Production, Printing and Publishing Design; Craft Skills</p> <p><b>Humanities, Religion and Theology:</b> Foreign Languages and Culture: Living or 'Dead' Languages and their Literature, Area Studies; Native Languages: Current or Vernacular Language and its Literature; Other Humanities: interpretation and Translation, Linguistics, Comparative Literature, History, Archeology, Philosophy, Ethics.</p>
Social and Behavioral Sciences	Social and Behavioral Sciences: Economics, economic history, political science, sociology, demography, anthropology (except physical anthropology), ethnology, futurology, psychology, geography (except physical geography), peace and conflict studies, human rights

Journalism and Information	Journalism; Library Technician and Science; Technicians in Museums and similar repositories; Documentation Techniques; Archival Sciences.
Business and administration	Retailing, Marketing, Sales, Public Relations, Real Estate; Finance, Banking, Insurance, Investment Analysis; Accounting, Auditing, Book Keeping; Management, Public Administration, Institutional Administration, Personnel Administration; Secretarial and Office Work.
Law	Local Magistrates, 'notaires', law (general, International, Labor, Maritime, etc.) jurisprudence, History of law.
Life Sciences	Biology, Botany, Bacteriology, Toxicology, Microbiology, Zoology, Entomology, Ornithology, Genetics, Biochemistry, Biophysics, Other Allied Sciences, Excluding Clinical and Veterinary Sciences.
Physical Science	Astronomy and Space Sciences, Physics, Other allied subjects, Chemistry, Other allied subjects, Geology, Geophysics, Mineralogy, Physical Anthropology, Physical Geography and Other Geosciences, Meteorology and Other Atmospheric Sciences including climatic research, marine science, volcanology, paleoecology.
Mathematics and Statistics	Mathematics, Operations research, Numerical analysis, Actuarial Science, Statistics and other allied fields.
Computing	Computer Sciences: System Design, Computer Programming, Data Processing, Networks, Operating systems-software development only (hardware development should be classified with the engineering fields).

Engineering and engineering trades	Engineering drawing, Mechanics, Metal work, Electricity, Electronics, Telecommunications, Energy and Chemical engineering, Vehicle Maintenance, Surveying.
Manufacturing and Processing	Food and Drink Processing, Textiles, Clothes, Footwear, Leather, Materials (Wood, Paper, Plastic, Glass, etc.), Mining and Extraction.
Architecture and Building	Architecture and town Planning: Structural Architecture, Landscape architecture, Community Planning, Cartography; Building, Construction; Civil Engineering.
Agriculture, Forestry and fishery	Agriculture, crop and livestock production, agronomy, animal husbandry, horticulture and gardening, forestry and forest product techniques, natural parks, wildlife, fisheries, fishery science and technology.
Veterinary	Veterinary medicine, veterinary assisting.
Health	Medicine: Anatomy, Epidemiology, Cytology, Physiology, Immunology and Immunoematology, Pathology, Anesthesiology, Pediatrics, Obstetrics and gynecology, internal medicine, surgery, neurology, psychiatry, radiology, ophthalmology; Medical services: Public health services, hygiene, pharmacy, pharmacology, therapeutics, rehabilitation, prosthetics, optometry, nutrition; Nursing, Basic nursing and midwifery; Dental Services: dental assisting, dental hygienist, dental laboratory, technician, odontology.
Social services	Social care: care of the disabled, child care, youth services, gerontological services; social work: counseling, welfare not elsewhere classified (n.e.c)

Personal Services	Hotel and Catering, Travel and Tourism, Sports and Leisure, Hairdressing, Beauty Treatment, and Other Personal Services; cleaning, laundry, dry-cleaning, cosmetic services, domestic science.
Transport Services	Seamanship, Ship's officer, nautical science, aircrew, air traffic control, railway operations, road motor vehicle operations, postal service.
Environmental Protection	Environmental Conservation, Control and Protection, Air and Water pollution control, Labor Protection and security.
Security Services	Protection of property and persons: police work and related law enforcement, criminology, fire-protection and firefighting, civil security; military.
Not known or unspecified	(this category is not part of the classification itself but in data collection '99' is needed for 'fields of education not known or unspecified')

