

Associate Professionals, and Plant and Machine Operators and Assemblers. Employees in Elementary Occupations were the majority in Nakuru county at 36.59 per cent of the total private sector employees surveyed in the county. Skilled Farm, Fishery, Wildlife and Related Workers were the second largest making up 14.61 per cent of the total. Secretarial, Clerical Services and Related Workers, Plant and Machine Operators and Assemblers, and Craft and Related Trades Workers were the dominant occupational groups in Mombasa county. They constituted 17.82, 15 and 12.41 per cent of the total private sector employees in county, respectively. All the 47 counties of Kenya had varying proportions of public sector workers with in the various major occupation groups. The county variation in skill distribution is consistent with the differences in economic activities and resource endowments across regions.

The public and private sectors of the economy, and the education and training institutions all reported vacant posts. Majority of the vacant posts reported by the public sector institutions were in the major occupation group of Technicians and Associate Professionals; Professionals; and Service Workers, Shop and Market Sales Workers. Plant and Machine Operators and Assemblers; Craft and Related Trades Workers; and Skilled Farm, Fishery, Wildlife and Related Workers accounted for the least number of vacant posts reported in the public sector. In terms of economic activities, the vacant posts reported in the public sector were mainly in Public Administration and Defence, and Compulsory Social Security. Minimal levels of reported vacancies were in Transport and Storage, Education and Information and Communication.

The vacant posts in the private sector were mainly in the higher occupational categories with the first four major occupation groups accounting for seven in every ten of the vacant posts. Skilled Farm, Wildlife and Related Workers accounted for the lowest proportion of vacant posts in the private sector. About half of the vacant posts reported in the private sector were in three economic activities: Human Health and Social Work Activities, Financial and Insurance Activities, and Education. Close to seven in every ten of the vacant posts reported in the education and training institutions were in the major occupation group of Professionals. None of the vacant posts in these institutions were in the area of Skilled Farm, Fishery, Wildlife and Related Workers.

These findings indicate difficulties in attracting, hiring and retention of employees in the higher occupation categories. More importantly, co-existence of relatively high vacancy rates and massive unemployment is a strong indication of skill mismatches in the economy.

The demand for skills in the public sector is particularly for Technicians and Associate Professionals; Professionals and Elementary Occupations. Skill shortages in the sector are, however, mainly manifest in the major occupation groups of Professionals; Secretarial, Clerical Services and Related Workers; and Technicians and Associate Professionals. The private sector, however, slightly opens up for skills in the major occupation group of Professionals; Service Workers, Shop and Market Sales Workers; and the employees in Elementary Occupations. A similar pattern is reflected in the education and training institutions. Overall, the demand for skills of employees in major occupation groups of Skilled Farm, Fishery, Wildlife and Related Workers; Craft and Related Trades Workers; and Plant and Machine Operators remain limited in the three sectors. While this may explain the increased demand for university education amongst most Kenyans, it also points to the increased tightness of the labour market, especially for the lowly skilled.

The survey has established increased capacity, intake and outturn of most education and training institutions. This exists simultaneously with capacity underutilization in some of the institutions. The increased intake and outturn point to high levels of injection of fresh graduates and job seekers into the labour market. The capacity underutilization shows that the country's solution to increasing access to Technical Vocational Education and Training, and university education lies not in the prioritization of expansion and establishment of additional institutions but in popularizing the programmes offered in the existing institutions, staffing and equipping the institutions, ensuring effective curricular development and delivery, and quality assurance. Finally, the jobs and job content in Kenya seem to be fast developing as manifested in the new occupations. Moving forward, there is need for more effective dialogue between government, industry and the education and training institutions to address the skills mismatches, the sub-optimal skill mix, updating of the occupational classification and mechanisms for better capture and dissemination of labour market information.

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Acronyms and Abbreviations

CBR	Central Business Register
CHE	Commission for Higher Education
CUE	Commission for University Education
ECD	Early Childhood Development
ECDE	Early Childhood Development Education
IHRDS	Integrated Human Resource Development Strategy
IOM	International Organization for Migration
ISCO	International Standard Classification of Occupations
ISIC	International Standards for Industrial Classification
KNBS	Kenya National Bureau of Statistics
KNOCS	Kenya National Occupational Classification Standards
MoE	Ministry of Education
MoFA	Ministry of Foreign Affairs
MoHEST	Ministry of Higher Education Science and Technology
MoLG	Ministry of Local Government
MoYAS	Ministry of Youth Affairs and Sports
MSPS	Ministry of State for Public Service
MTP	Medium Term Plan
NASSEP	National Sample Survey and Evaluation Programme
NITA	National Industrial Training Authority
NMS	National Manpower Survey
NSI	National Skills Inventory
STATCAP	Statistical Capacity Building Project
TTCs	Technical Training Colleges
TVET	Technical Vocational Education Training
TWG	Technical Working Group

CHAPTER ONE

BACKGROUND

1.1 Introduction

The Kenya government unveiled the *Kenya Vision 2030* as the blueprint to steer the country's long-term development over the period 2008-2030. Through this, the government aspires to make Kenya a newly industrializing, middle-income country providing high quality life for all its citizens by the year 2030. The Vision is anchored on three pillars: economic, social and political. The economic pillar aims at ensuring prosperity of all Kenyans through an economic development programme that seeks to achieve a high and sustained economic growth rate averaging 10 per cent per year over the Vision horizon. The social pillar seeks to build a just, cohesive and equitable society living in a clean and secure environment. The political pillar aims at actualising an objective and democratic political system, respect for the rule of law, and the protection of the rights and freedoms of all the individuals in the society. The economic, social and political pillars of Vision 2030 are anchored on *human resource development; enhanced equity and wealth creation opportunities for the poor*. Other foundations are macroeconomic stability; governance, security, public sector and land reforms; infrastructure development; energy; and science, technology and innovation.

To implement Vision 2030, the government in collaboration with stakeholders developed and launched a Medium Term Plan (MTP 2008-2012) to provide medium-term strategic framework for achieving the Vision 2030 goals. In addition, sector-specific plans were formulated to facilitate actualization of Vision 2030 and MTP goals. In this respect, the Sector Plan for Labour, Youth and Human Resource Development (2008-2012) was formulated and is being implemented. The Labour, Youth and Human Resource Development Sector Plan provide sector-specific goals, strategic objectives and thrusts to be achieved within the medium-term. The Plan emphasizes the critical role of labour and employment and provides for a national manpower survey as a key project towards achieving the aspirations of the Vision 2030.

The significance of the labour and human resource development sector becomes more evident when considered from the perspective that attainment of global competitiveness and high quality of life of a country's population hinges greatly on the extent to which a country nurtures, develops and utilizes her human resources, and the degree of efficiency of its labour market. This underscores the need for the Kenya Government, and more importantly the Ministry of Labour, to have accurate, timely and up to date labour market information to guide effective and efficient human resource planning, development and utilization.

1.2 Rationale for Conducting National Manpower Survey

The Kenya government has particularly since early 1970s pursued active labour market policies. These policies have been targeted towards addressing the imbalances existing between population growth, growth of the labour force, supply and stock of skills, industry demands and trends of such demands, and general challenge of employment particularly amongst the youth.

However, one of the critical ingredients of effective labour market policies is existence of a comprehensive and coordinated mechanism for collecting reliable, adequate and timely data on all facets of the labour market.

National Manpower Survey (NMS) is a key input that provides baseline information required in formulating and implementing effective active labour market policies. Such a survey provides a national skills inventory on stock, types, distribution, levels of skills available and the skill needs by industry and the trend of skills demanded by industry.

Kenya last undertook a NMS in 1986-88, which followed the surveys of 1964, 1967 and 1972. The 1986-88 NMS sought, in the short-term, to determine the stock and distribution of various categories of manpower in the modern sector, collect and determine characteristics of the persons employed in the modern sector of the economy and determine the number of vacant posts within different sectors of the economy and assess the possible areas of emphasis in trying to alleviate unemployment situation. It also sought to assess the relationship between the demand and supply of manpower in the economy and establish current and future manpower balances.

A key feature of the 1986-88 NMS is that it focused on the modern sector of the economy and collected information on employees and employers only. The implication is that the survey outcome was limited in terms of recognizing the contribution of the informal sector in generating employment and the capturing of the skills therein. At the same time, while employee and employer characteristics can provide the skill dynamics in terms of stock, trend in skill acquisition, demand levels and future projections, it cannot provide adequate information on skill supply, and the supply and demand dynamics within the economy. The 1986-88 NMS was also confined to the national economy at the exclusion of profiling of skills of Kenyans in the Diaspora.

The 2010/2011 NMS was designed to address the shortcomings of the 1986-88 NMS and provide an updated national manpower data. Unlike the 1986-88 NMS, it covered public and private sectors of the economy, the informal sector and the diaspora.

1.3 Objectives of the 2010/2011 National Manpower Survey

The overall goal of the NMS was to provide information necessary for developing and implementing an Integrated Human Resource Development Strategy (IHRDS) for Kenya. The specific objectives of the 2010/2011 NMS was to:

- (i) Take inventory, characteristics and distribution of skilled manpower within the different sectors of the economy.
- (ii) Take inventory, stock and characteristics of skilled manpower in the Diaspora.
- (iii) Establish the number of vacancies and demand.
- (iv) Determine manpower shortages and future requirements.
- (v) Establish the capacity of local training institutions.
- (vi) Identify the intake and outturn of training institutions.

- (vii) Provide information to update the Kenya National Occupational Classification Standards.
- (viii) Establish a manpower database for planning.

1.4 Organization of the Report

This Report is structured into five chapters. The current chapter provides the background of the National Manpower Survey. It discusses the rationale for undertaking the 2010/2011 NMS and the objectives of the survey. Chapter two summarizes the survey design and methodology while chapter three highlights the characteristics of survey respondents. Chapter four presents the survey findings and discussions. Finally, chapter five gives the study summary and recommendations.

CHAPTER TWO

SURVEY DESIGN AND METHODOLOGY

2.1 Introduction

This chapter details the methodology used in undertaking the NMS. It discusses the scope and coverage of the survey and sample survey design. Other issues covered are sample frame and sample selection procedures for the survey. In this survey, manpower is defined to cover permanent, contract and casual employees employed in all occupations. It also includes the self employed, unpaid family workers and employers who work for pay or profit.

2.2 Scope and Coverage

The survey targeted all administrative districts countrywide and Kenyan Missions and/or Embassies abroad. The local establishments were stratified as Central Government, Parastatals, Local Authorities, Private enterprises and informal sector. Education and training institutions were also stratified as follows:

- ñ Universities
- ñ Public Technical Training Institutions and Institutes of Technology
- ñ National Polytechnics
- ñ Government Training Institutes
- ñ Teacher Training Colleges
- ñ Pre-primary, primary and secondary schools
- ñ Youth polytechnics
- ñ Private colleges

2.3 Survey Design

The NMS utilized multiple approaches to capture indicators required in the study. The survey was designed to include five modules namely: (1) Employer (2) Employee (3) Informal Sector (4) Education and Training and (5) Diaspora. Different approaches were used to collect information on each of the modules. The study units were the public, private and informal sector establishments, and the education and training institutions.

All the institutions and employees in the public sector were to be enumerated in the survey. These institutions included all Government ministries, parastatals, local authorities and all establishments where Government has majority control. List of public service institutions and parastatals was compiled from records in the Ministry of State for Public Service (MSPS). The private sector module was designed to enumerate a sample of establishments drawn from all the 47 counties of Kenya. The study samples were drawn based on the number, size and economic activities of the establishments within the counties. This was in an effort to generate reliable estimates at that level.

2.3.1 The Sampling Frame

The survey used the Central Business Register (CBR) of establishments, which is also referred to as the Master File as the sampling frame for the establishments in the modern sector. The CBR is a list of businesses in the modern sector and the unit of enumeration in the register is the establishment and not firm. An establishment is defined as a specific location in which a clearly defined economic activity is undertaken. The CBR is updated on a continuous basis using administrative records such as the revenue register and using other surveys undertaken by the Bureau. The particulars for the establishments include a unique identifier, name of the establishment and firm, type of establishment and legal ownership, and economic activity.

The establishments are mainly categorized by economic activities using International Standard for Industrial Classification (ISIC) Revision IV and geographic location. The geographic location includes County, District, Division, Location, Sub location, Constituency, town, street and building. These categorization levels were used as stratification variables.

The study also used a National Sample Survey and Evaluation Programme (NASSEP IV), which is a household based frame maintained by the KNBS, to identify the informal sector employees/operators. Other frames included register of Accredited Universities from the then Commission for Higher Education (CHE) and now Commission for University Education (CUE), list of National Polytechnics from the Ministry of Higher Education, Science and Technology (MoHEST), register of Youth Polytechnics from MoHEST and the Ministry of Youth Affairs and Sports (MoYAS), and the list of schools and teacher training colleges from the MoE. Others were list of Local Authorities from the Ministry of Local Government (MoLG), list of public and private Technical, Vocational Education and Training (TVET) institutions from MoHEST, list of Public Service Institutions and Parastatals from the Ministry of State for Public Service (MSPS), and list of Embassies and Missions Abroad, from the Ministry of Foreign Affairs (MoFA).

2.3.2 Sample Size and Selection

The primary sampling unit was the establishment. The establishments were stratified into private and public. The public establishments were set to be covered 100 percent. Sample selection for the private establishments was conducted while allowing for a permissible error of five per cent (95 per cent confidence level) and adjustment for design effect of two per cent. The establishments were dichotomized into small and large firms. The dichotomy was grounded on the expectation that large firms will in most cases contain all the different skills unlike the small firms. For the purposes of the NMS, a large firm was taken to be a firm that has over five employees. The classification of establishments into large and small firms resulted into a binomial function which was subsequently used to determine the sample size at the county level as elaborated in the Appendix 1.

2.3.3 Stratification

In selecting representative sample establishments for the NMS, the frame was first stratified into fine and homogenous groupings with respect to geographical location (counties), economic or industrial activity and employment size. The first stage of stratification was by geographical location. The sample was allocated to the 47 counties as currently constituted. Each county constituted a stratum. The list of counties is given in Table 2.1.

Table 2.1: List of Counties

1. Nairobi	25. West Pokot
2. Mombasa	26. Samburu
3. Kwale	27. Trans-Nzoia
4. Kilifi	28. Uasin Gishu
5. Tana River	29. Elgeyo Marakwet
6. Lamu	30. Nandi
7. Taita Taveta	31. Baringo
8. Garissa	32. Laikipia
9. Wajir	33. Nakuru
10. Mandera	34. Narok
11. Marsabit	35. Kajiado
12. Isiolo	36. Bomet
13. Meru	37. Kericho
14. Tharaka-Nithi	38. Kakamega
15. Embu	39. Vihiga
16. Kitui	40. Bungoma
17. Machakos	41. Busia
18. Makueni	42. Siaya
19. Nyandarua	43. Kisumu
20. Nyeri	44. Homa Bay
21. Kirinyaga	45. Migori
22. Muranga	46. Kisii
23. Kiambu	47. Nyamira
24. Turkana	

In the second stage, all establishments in each county were classified by economic activity as elaborated by the International Standard of Industrial Classification Revision IV. The list of economic activities is given in Table 2.2.

Table 2.2: Stratification by Economic Activities

Classification	Description of Economic Activity
A	Agriculture, forestry and fishing
B	Mining and quarrying
C	Manufacturing
D	Electricity, gas, steam and air conditioning supply
E	Water supply; sewerage, waste management and remediation activities
F	Construction
G	Wholesale and retail trade; repair of motor vehicles and motorcycles
H	Transportation and storage
I	Accommodation and food service activities
J	Information and communication
K	Financial and insurance activities
L	Real estate activities
M	Professional, scientific and technical activities
N	Administrative and support service activities
O	Public administration and defence; compulsory social security
P	Education
Q	Human health and social work activities
R	Arts, entertainment and recreation
S	Other service activities
U	Activities of extraterritorial organizations and bodies

Note: Category T, which is activities of households as employers is excluded

In the third stage, the establishments in the master file are grouped by their size, as determined by the number of employees. During the design stage, the master file was divided into two temporary tables, one for the small establishments and the other for the large establishments.

2.3.4 Allocation of Samples within the County and Establishments

A regional stratification was done within the counties using the district as the guide. Samples were then drawn taking into account a proportional allocation of the number of economic activities and establishments within the district. Sampling of the establishments within economic activity was done such that those establishments with over 99 employees were covered 100 per cent while the rest were randomly selected, with those employing 20-99 employees being given more weight.

Sampling within establishments was dependent on the number of employees. The establishments were banded by employment size. The bands were: those establishments with less than 50 employees, those with 50-99 employees, 100-499 employees, 500-999

employees, and those with 1000 and above. From these bands, the proportion of employees covered were 100 per cent, 80 per cent, 50 per cent, 25 per cent, and 15 per cent, respectively. This categorization was used to reduce overlaps in the number of employees to be covered in the adjacent bands in an establishment.

To reach the target employees in the various occupations in the sampled establishments, the research assistants were instructed to get the occupational profile of the employees in the various departments up front. Stratification of the employees was based on the Kenya National Occupational Classification Standards (KNOCS), where occupations are categorized at different levels. The survey utilized classification at the three digit level with further disaggregation by gender. A simple random sampling method without replacement was then used. This method avoids selection of any employee more than once and thus avoids possible wastages that are common in using simple random sampling when selecting specific respondents with replacement. The employees' questionnaire was then administered on each of the selected employees.

2.3.5 Education and Training Institutions

A sample of 231 education and training institutions were purposively selected. The sample selection procedure involved listing of all the training institutions in the country and allocating an appropriate number of training institutions per county. The sample frames used were as given in the section on Sampling Frame.

2.3.6 Informal Sector

Informal sector module was implemented through the household approach. The households were drawn from the clusters in NASSEP IV frame. The frame is a two-stage stratified cluster sample format developed by the Kenya National Bureau of Statistics (KNBS) in 2002, based on the 1999 census. The NASSEP IV has 1800 clusters of which 1,260 are rural based and 540 urban.

The NMS sample consisted of 798 clusters drawn from the 47 counties. A total of 12,000 households were drawn from the sampled clusters. The sampled households were the entry point to the informal businesses (informal establishments). The informal sector survey instrument was administered to those establishments operated by the members of the household. The coverage was confined to businesses operated within the sampled districts and counties.

2.3.7 The Diaspora

This module was intended to capture skills of Kenyans living in diaspora. Administration of the diaspora module was meant to be continuous in nature. The module was implemented both online and through the Ministry of Foreign Affairs (MoFA). The respondents were to be contacted and a questionnaire administered through the Kenyan Mission and Embassies abroad.

2.4 Recruitment and Training

Research Assistants were recruited from KNBS database of personnel who had prior field experience. Two groups of research assistants were identified: these were private sector based research assistants to administer the instruments in the private sector and the informal sector, and public sector employees to administer the instrument in public sector organizations. A team of supervisors and coordinators were drawn from the collaborating institutions to oversee the entire data collection process.

The research assistants, supervisors and coordinators were trained using a developed training manual. The training entailed a review of concepts and definitions, overview of the NMS methodology, comprehensive discussions on the survey instruments and the field survey team structure. The research assistants were subjected to an evaluation test.

2.5 Development of Survey Instruments

The survey instruments, which included user manuals and questionnaires, were developed. The basic questionnaires were developed at the level of the East African Community. These were later on domesticated through a consultative process involving the Technical Working Group (TWG) and other stakeholders.

2.6 Pilot Survey

A pilot survey was conducted. It was aimed at testing the survey methodology, the validity and reliability of the survey instruments, and logistics. The findings of the pilot survey were used to firm up the survey methodology, refine the instruments and review on the survey logistics.

2.7 Data Collection

In the establishment based surveys, employer and employee questionnaires were administered. In the educational institutions, both the employer and education and training modules were used. A household listing form was used to identify informal sector operators and subsequently the informal sector questionnaire was administered. Some of the information collected in the respective modules is as outlined.

Employer Module

- Establishment information
- Workload
- Employee characteristics, earnings and vacant posts
- Future manpower projections
- Staff development
- Labour costs
- Sourcing for required staff
- Membership to organizations associations
- Challenges of business expansions
- HIV/AIDS work place policy
- Use of ICT
- Gender
- Industrial attachment/internship

Employee Module

- General personal information
- Nature of current employment
- Formal education background
- Vocational training/other training
- Type of training
- Employment history
- Performance appraisal
- Career growth
- Working terms and conditions
- Labour rights and related issues
- Staff training and development
- Challenges at work place
- Gender
- Industrial attachment/internship

Education and Training Institutions • General personal information • Nature of current employment • Formal education background • Vocational training/other training • Type of training • Employment history • Performance appraisal • Career growth • Working terms and conditions • Labour rights and related issues • Staff training and development • Challenges at work place • Gender • Industrial attachment/internship	Informal Sector -Employer Section • Identification particulars • Information about owner/business • Business characteristics • Business operations • Utilization of labour/human resources • Capital/revenue • Expenditures/labour costs • Membership to organization associations • Employment working conditions • HIV/AIDS • Gender • Use of ICT • Internship • Challenges of the business expansion
Informal Sector- Employee Section • General personal information • Nature of current employment • Formal education background • Vocational training/other training • Type of training • Employment history • Working terms and conditions • Labour rights and related issues • Staff training and development • HIV/AIDS • Gender • Use of ICT • Challenges at work place	Diaspora • Country of residence • The number people involved in productive activities in the diaspora • Economic activities individuals are engaged in and their number • Current occupations and their numbers by positions held (e.g. middle level, management level) • Experience in the current occupation and their qualifications • Estimates of financial remittances (wherever possible) • Number of students in training institutions by areas and levels • Number of trainees returning by area of specialization

2.8 Field Coordination and Supervision

The main role of coordinators and supervisors was to ensure that high standards were maintained during the data collection exercise. Coordinators were detailed to oversee survey activities in the various counties/jurisdictions. Their particular duties included distribution of survey materials, ensuring overall adherence to the survey ethics, crosschecking data collected by the research assistants and supervisors, and providing a link with the head office. Each supervisor was in charge of a team of research assistants and had the responsibility of scheduling meetings with management of the sampled private sector establishments, sampling within establishments, administering the employer module questionnaire and ensuring diligent collection of the data by the research assistants. They were also to provide general support to the research assistants.

2.9 Data Processing

The questionnaires were received, edited, coded and batched in bundles of 100 before entry. Data capture was done through a double entry process to limit incorrect entries. Data capture system was designed in CSPro software while tabulation was done using Stata.

2.10 Weighting, Non-Response Adjustment and Statistical Analysis

Sampling probability weights were incorporated into data from the private sector. Two types of weights (employer and employee) were calculated and applied to the data. The purpose of weighting was to correct for unequal probability of selection, to produce results that are representative of the larger population from which the sample was drawn, and to adjust for non-response. The steps in the process of determining final weights included calculating probabilities of selection, converting the probabilities into weights, and adjusting for non-response. No weights were applied on the data from the other modules.

2.11 Survey Limitations

The public sector was targeted to be a census. However, not all the public sector personnel responded to the questionnaire. Some agencies such as the security organs could not participate in the exercise due to the sensitive nature of their operations. The data collected through the survey was, therefore, supplemented with administrative data on authorized establishment, in-post and vacant post, and distribution of the staff in the central government by county. The results and tabulations in respect to public sector data are presented as proportions and are representative.

In the stratification of economic activities in the private sector, activity T which covers households as employers was excluded. The employees in this economic activity were excluded from the private sector employment figures presented. The private sector employment data presented in the Report may, therefore, vary from those in other published documents.

The results presented under the education and training sector are based on the responses from 231 purposively sampled education and training institutions. Appropriate weights were developed and applied to the response from these institutions to give a totality of 1,985 institutions. Therefore, the results may vary from those published in other reports.

A total of 12,000 informal sector households were sampled and about 8,500 responded from the household interviews. These were from approximately 648 clusters out of the total 798 clusters sampled. A listing form was filled to help identify the individuals within the households who engaged in informal sector activities. However, low response rate was recorded from the informal sector module. This was attributed to some clusters not being visited due to logistical issues. In addition, some individuals in identified households declined to be interviewed. Further scrutiny of the responses showed that they were not uniform across the counties. The option of adjusting the data by weighting could not be adopted since it could lead to unreliable estimates with large variances. As such, no analysis was undertaken for informal sector module.

The administration of the diaspora module was both online and through MoFA. It was conceptualized to be a continuous activity and participation was optional. By the time of analysis, only 270 responses had been received. This was considered to be too small to support meaningful analysis and drawing of inferences. The data captured through the module was, therefore, not analysed.

CHAPTER THREE

CHARACTERISTICS OF SURVEY RESPONDENTS

3.1 Introduction

This Chapter highlights the characteristics of the survey respondents drawn from the public and private sector establishments, and education and training institutions. It provides the distribution of the establishments that responded to the survey instrument, education and general demographic characteristics of the respondents.

3.2 Distribution of Establishments

3.2.1 Public Sector

Table 3.1 gives a summary of the number of public sector establishments that responded. It shows that more than half (60.31%) of the public sector institutions that responded to the survey instruments were from the central government.

Table 3.1: Distribution of Public Sector Establishments

Type of Establishment	Per cent	Number
Central Government	60.31	193
Parastatals ⁺	19.38	62
Majority Control by the Public Sector	13.44	43
Local Government	6.88	22
Total	100.00	320

+ includes constitutional bodies and commissions

3.2.2 Private Sector

Table 3.2 gives the distribution of private sector establishments that were covered in the survey. According to the survey data, 42.12 per cent of the establishments were limited local private companies while 27.86 per cent were other private enterprises.

Table 3.2: Distribution of Private Sector Establishments

Type of Establishment	Per cent	Number
Limited Local Public Company	1.07	463
Limited Foreign Public Company	0.11	47
Limited Local Private Company	42.12	18,211
Limited Foreign Private Company	0.82	356
Co-operative	10.98	4,747
Other Private Enterprise	27.86	12,047
Private Non Profit-Making Institution	7.46	3,226
Others	9.57	4,139
Total	100.00	43,236

3.2.3 Education and Training Institutions

Table 3.3 gives the distribution of the education and training institutions that responded to the study questionnaire. It shows that education and training institutions under sole ownership were the majority, constituting 36.07 per cent of the total. The religious/faith based education and training institutions were the least, representing 7.96 per cent of the total.

Table 3.3: Education and Training Institutions

Ownership	Per cent	Number
Public	28.66	569
Sole Ownership	36.07	716
Partnership	8.41	167
Religious/Faith Based	7.96	158
Community	10.73	213
Others	8.01	159
Not Stated	0.15	3
Total	100	1,985

3.3 Demographic Characteristics of the Employees

3.3.1 Age and Sex Profile of the Employees

Table 3.4 gives the distribution of public sector employees covered in the survey by age and sex.

Table 3.4: Distribution of Public Sector Employees by Age and Sex

Age Category	Male (%)	Female (%)	Total (No.)
15-17	0.00	0.00	2
18-23	1.06	0.63	7,507
24-29	7.03	4.66	51,871
30-35	9.54	7.21	74,288
36-41	11.39	7.63	84,397
42-47	12.02	8.03	88,962
48-53	12.28	6.57	83,628
54-59	4.85	2.21	31,317
60-64	0.10	0.02	543
65+	0.07	0.01	325
Not stated	2.65	2.03	20,785
Total	60.99	39.01	443,625

Table 3.4 indicates that majority of the public sector workers who responded to the employee questionnaire were males. According to the data, at least six in every ten of the workers were males. According to the survey data, about three quarters (74.67%) of the public sector employees who responded to the questionnaire were in the age range of 30 to 53 years. In this respect, 20.05 per cent of the workers were aged 42-47 years; 19.02 per cent were aged 36-41 years; 18.85 per cent were in the age cohort of 48-53 years; while 16.75 per cent were in the

age category of 30-35 years. The data presented in Table 3.4 also shows that 30.13 per cent of the public sector employees who responded to the questionnaire were the youth aged 18-35 years. Two of those who responded were aged 15 to 17 years. This group could be students from education and training institutions on industrial attachment or internships.

The age distribution of public sector employees generates two key implications for policy. First, the revelation that majority of public sector employees who responded were in the middle and upper age capping raises policy concern in terms of succession planning and attendant matters such as management of pension cash flow within the sector. The Kenya Government increased the retirement age of civil servants to 60 years from the initial capping of 55 years. Even though this policy shift can be seen within the light of retention of critical skills, the dividends may not be forthcoming immediately. This is more so because no intervention has been made by the government to re-orient the thinking of the directly and indirectly affected employees to embrace the change as part of talent retention and succession planning strategy.

Second, the low proportion of the youth in the public sector may be interpreted in two opposing ways. One is that the youth may be facing challenges in accessing public sector employment. Such barriers to entry may arise from lack of or inadequate work experience, freeze on public sector employment, and path dependence, which dictates that early unemployment increases the likelihood of subsequent unemployment. Two is that the low proportion of the youth in public sector employment may be explained by the negative attitudes and job selectiveness of the youth to public sector jobs. This may be grounded on the fact that the public sector jobs may not be challenging to the youth. The youth may also be possessing skills that fit in new occupations that are not yet entrenched in the public sector. Overall, the youth gap in the public sector may make the public sector to miss on the unique skills that are possessed by the youth. Some of these skills are in the technology-driven occupations, arts and music. The implication is that strategic interventions have to be made to address the barriers to youth employment.

Table 3.5 gives the distribution of private sector employees by age and sex. It shows that a grossed up figure of 1,335,040 private sector employees were covered.

Table 3.5: Distribution of Private Sector Employees by Age and Sex

Age Category	Male	Female	Total
5-9	60	67	127
10-14	39	30	69
15-17	113	306	419
18-23	79,925	48,240	128,165
24-29	230,363	154,455	384,818
30-35	215,684	101,396	317,080
36-41	156,580	65,718	222,298
42-47	94,891	26,872	122,763
48-53	72,951	16,179	89,130
54-59	34,920	4,371	39,291
60-64	10,445	1,654	12,099
65+	7,691	1,069	8,760
Not stated	6,600	3,421	10,021
Total	911,261	423,779	1,335,040

The data presented in Table 3.5 also shows that males constituted 68.26 per cent of the private sector employees covered while females represented 31.74 per cent of the total employees.

From the data presented in Table 3.5, close to nine in every ten (88.02%) of the private sector employees are aged 18 to 47 years. Specifically, 28.82 per cent of the private sector employees were aged 24-29 years; 23.75 per cent were in the age cohort of 30-35 years while 16.65 per cent were in the category of 36-41 years. Those aged 18-23 years were 9.60 per cent while the 42-47 years cohort constituted 9.20 per cent of the total private sector employees. In terms of youth employment, the youth aged 18-35 years constituted 62.18 per cent of the total private sector employees.

Though not directly comparable, the sex dynamics presented in Tables 3.4 and 3.5 is reflective of the long-term trend in the male-female employment balance in Kenya. Formal sector employment data show that the proportion of women in wage employment increased marginally from 26.2 per cent in 1995 to 29.5 per cent in 2000. It, however, remained constant at 29.6 per cent in the period 2001-2004 before increasing marginally to average 30.2 per cent over the 2006-2008. In 2011, the proportion of women in wage employment was 30.51 per cent up from 28.7 per cent in 2010. These trends reveal inequities in access to wage employment by women.

The imbalance in male-female employment is a manifestation of decent work deficits in the country. According to the International Labour Organization, decent work is central to sustainable poverty reduction. It is, therefore, a means of achieving equitable, inclusive and sustainable development as envisaged in the Constitution, *Kenya Vision 2030* and the MTP (2008-2012). The four strategic pillars of decent work agenda are full and productive employment; rights at work; social protection; and promotion of social dialogue. Some of the substantive elements of the pillars are employment opportunities, and equal opportunities and

treatment in employment. The low representation of females in employment, therefore, suggests that male and females do not access the employment opportunities equally.

3.3.2 Distribution of Employees by Marital Status

Table 3.6 gives a summary of the sex distribution of public sector employees who responded to the survey questionnaire.

Table 3.6: Distribution of Public Sector Employees by Marital Status

Marital Status	Per cent	Number
Single	12.77	56,660
Married	82.98	368,107
Separated	0.81	3,572
Divorced	0.21	936
Widowed	2.70	11,996
Not Stated	0.53	2,353
Total	100	443,625

Table 3.6 shows that 82.98 per cent of the public sector employees who responded to the survey instrument were married. According to the data, 12.77 per cent of the employees were single while 2.7 per cent were widowed. Less than one per cent (0.53%) did not disclose their marital status.

Table 3.7 gives a summary of the distribution of private sector employees by marital status.

Table 3.7: Distribution of Private Sector Employees by Marital Status

Marital Status	Number	Per cent
Single	401,893	30.10
Married	894,015	66.97
Separated	15,559	1.17
Divorced	5,652	0.42
Widowed	17,332	1.30
Not Stated	589	0.04
Total	1,335,040	100

Table 3.7 shows that 66.97 per cent of the private sector employees were married. This is compared to 30.10 per cent who were single, and 1.30 per cent who were widowed. Less than 0.1 per cent did not indicate their marital status.

3.3.3 Distribution of Employees by Educational Attainment

Figure 3.1 illustrates the distribution of public sector employees who responded to the survey questionnaire by sex and educational attainment.

Figure 3.1: Distribution of Public Sector Employees by Sex and Educational Attainment

Figure 3.1 show that majority (74.26%) of public sector employees who responded to the survey instrument had secondary (Form I to IV) school education. According to the data, the second largest group are those workers with the Bachelors degree. They constituted 11.58 per cent of the public sector employees who responded. The proportion of the public sector employees with a Bachelors degree is likely to go up if some of the employees classified under “University” complete their university education. This category of employees was at various levels of university education. They were considered to have either dropped out, continuing but on holiday or on internship/industrial attachment. According to the survey data, employees with no education were the minority. They represented 0.01 per cent of the total number of public sector employees who responded to the questionnaire. Incidentally, only males were found to have no education. Consistent with the inequity in employment and

access to education, the proportion of females were in all instances lower than that of males at all levels of educational attainment.

Table 3.8 gives the detailed distribution of public sector employees who responded to the survey instrument by sex and highest level of education. It shows that the workers were represented at all levels of educational hierarchy. However, the workers were mainly concentrated at the secondary school education. Only a few of the employees had university degree.

Table 3.8: Distribution of Public Sector Employees by Highest Grade Attained

Highest Grade Completed	Male	Female	Total
None	0.01	0.00	45
Standard 1	0.06	0.03	377
Standard 2	0.04	0.02	263
Standard 3	0.04	0.01	207
Standard 4	0.08	0.02	468
Standard 5	0.06	0.02	355
Standard 6	0.12	0.04	694
Standard 7	2.48	0.69	14,106
Standard 8	1.79	0.53	10,325
Form I	0.03	0.01	202
Form II	0.91	0.57	6,529
Form III	0.19	0.13	1,421
Form IV	40.36	27.59	301,413
Form V	0.01	0.01	79
Form VI	3.09	1.55	20,623
1st Year	0.03	0.02	229
2nd Year	0.03	0.03	290
3rd Year	0.03	0.02	230
4th Year	0.09	0.05	614
5th Year	0.00	0.00	42
6th Year	0.01	0.00	44
7th Year	0.01	0.01	106
Diploma	2.26	2.11	19,385
Bachelors Degree	7.20	4.40	51,439
Post Graduate Diploma	0.06	0.02	376
Masters Degree	0.88	0.49	6,093
Doctorate (PhD)	0.12	0.05	746
Others (e.g. Madrasa)	0.10	0.06	702
Not Stated	0.89	0.51	6,221
Total	60.99	39.01	443,625

Figure 3.2 gives an illustration of the distribution of private sector employees by sex and educational attainment. It shows that slightly more than six in every ten of the private sector employees have secondary school education. However, those with primary school education constituted 27.61 per cent of the total private sector employees. This is compared to 5.01 per cent with Bachelors degree. Less than one per cent (0.18%) of the private sector employees had no education.

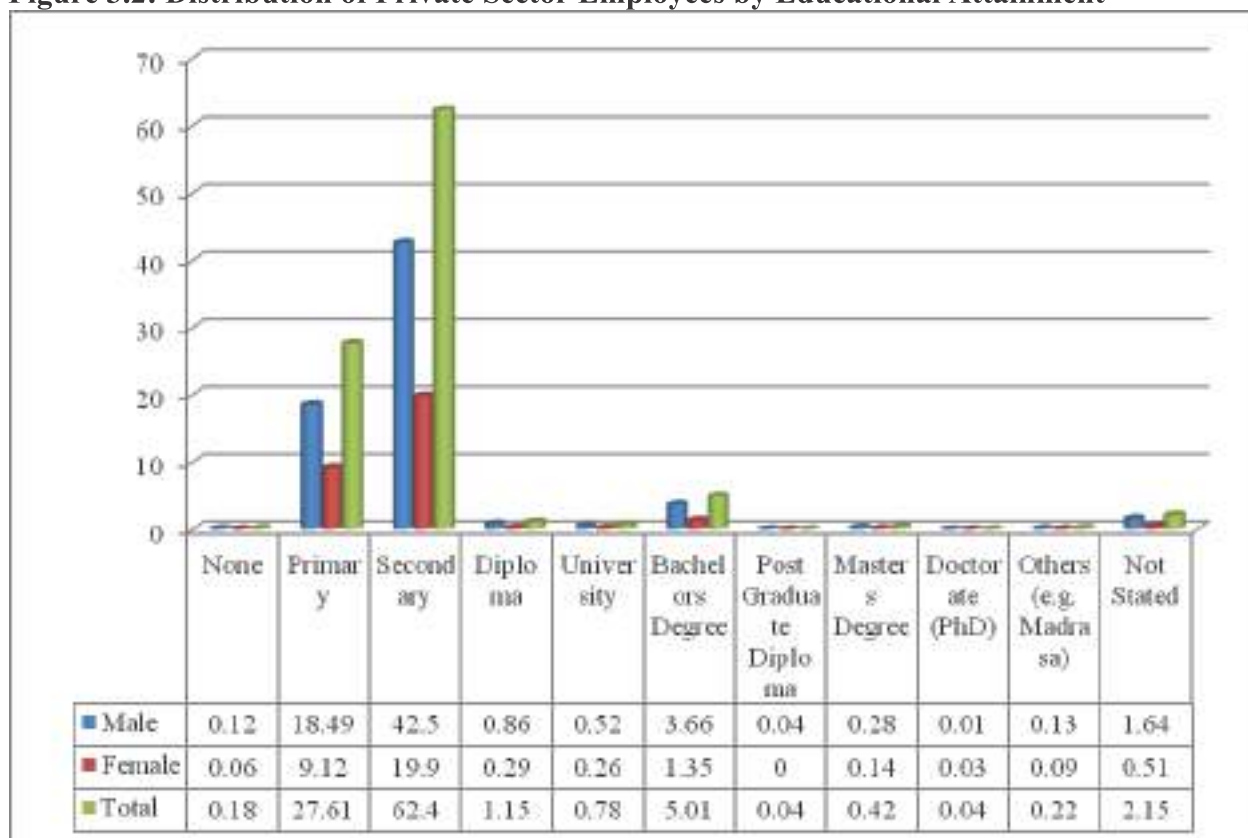
Figure 3.2: Distribution of Private Sector Employees by Educational Attainment

Table 3.9 presents the distribution of private sector employees by highest education level attained. It shows that majority of the employees have secondary level of education.

Table 3.9: Distribution of Private Sector Employees by Highest Grade Attained

Highest Grade Completed	Male	Female	Total
None	1,634	850	2,484
Standard 1	512	716	1,228
Standard 2	3,075	1,166	4,241
Standard 3	5,727	3,057	8,784
Standard 4	7,932	4,543	12,475
Standard 5	13,280	3,252	16,532
Standard 6	16,512	6,081	22,593
Standard 7	58,553	27,888	86,441
Standard 8	141,241	75,059	216,300
Form I	9,712	4,811	14,523
Form II	41,246	20,635	61,881
Form III	25,878	14,618	40,496
Form IV	478,526	219,523	698,049
Form V	119	48	167
Form VI	12,077	6,064	18,141
1st Year	751	298	1,049
2nd Year	1,355	846	2,201
3rd Year	1,834	702	2,536
4th Year	1,302	787	2,089
5th Year	96	145	241
6th Year	220	39	259
7th Year	1,401	654	2,055
Diploma	11,465	3,892	15,357
Bachelors Degree	48,854	18,031	66,885
Post Graduate Diploma	485	30	515
Masters Degree	3,768	1,839	5,607
Doctorate (PhD)	113	132	245
Others (e.g. Madrasa)	1,673	1,210	2,883
Not Stated	21,921	6,862	28,783
Total	911,261	423,779	1,335,040

3.3.4 Distribution of Employees by County

Table 3.10 gives a summary of the distribution of the public sector employees by county. Majority of the public sector employees were in Nairobi county followed by those in Nakuru and Kiambu counties. These employees constituted 24.76, 5.66 and 3.96 per cent, respectively of all public sector employees who responded. Lamu, Samburu and Nyamira counties had the lowest number of public sector employees, constituting 0.59, 0.69 and 0.78 per cent of the public sector employees covered, respectively.

Table 3.10: Distribution of Public Sector Employees by County

County	Male (%)	Female (%)	Total (No.)
1. Nairobi	15.10	9.66	109,828
2. Mombasa	1.75	1.12	12,716
3. Kwale	0.57	0.36	4,129
4. Kilifi	0.93	0.60	6,776
5. Tana River	0.52	0.33	3,770
6. Lamu	0.36	0.23	2,602
7. Taita Taveta	0.75	0.48	5,450
8. Garissa	1.09	0.70	7,918
9. Wajir	0.56	0.36	4,056
10. Mandera	0.49	0.32	3,598
11. Marsabit	0.69	0.44	5,003
12. Isiolo	0.53	0.34	3,839
13. Meru	1.50	0.96	10,937
14. Tharaka-Nithi	0.57	0.36	4,143
15. Embu	1.27	0.81	9,226
16. Kitui	1.11	0.71	8,063
17. Machakos	1.27	0.81	9,208
18. Makueni	1.02	0.65	7,433
19. Nyandarua	0.85	0.55	6,206
20. Nyeri	1.79	1.14	13,017
21. Kirinyaga	0.77	0.49	5,578
22. Muranga	1.01	0.65	7,382
23. Kiambu	2.42	1.55	17,573
24. Turkana	0.57	0.37	4,168
25. West Pokot	0.63	0.40	4,556
26. Samburu	0.42	0.27	3,055
27. Trans-Nzoia	0.85	0.55	6,204
28. Uasin Gishu	1.20	0.77	8,712
29. Elgeyo Marakwet	0.72	0.46	5,272
30. Nandi	0.79	0.51	5,767
31. Baringo	1.08	0.69	7,887
32. Laikipia	0.82	0.52	5,939
33. Nakuru	3.45	2.21	25,123
34. Narok	0.74	0.47	5,355
35. Kajiado	0.76	0.49	5,554
36. Bomet	0.71	0.45	5,170
37. Kericho	0.72	0.46	5,255

38. Kakamega	1.58	1.01	11,471
39. Vihiga	0.75	0.48	5,452
40. Bungoma	1.26	0.81	9,186
41. Busia	0.87	0.56	6,322
42. Siaya	0.70	0.45	5,070
43. Kisumu	2.02	1.29	14,687
44. Homa Bay	0.69	0.44	5,023
45. Migori	0.96	0.62	7,005
46. Kisii	1.30	0.83	9,484
47. Nyamira	0.48	0.30	3,458
Total	60.99	39.01	443,625

Table 3.11 summarizes the distribution of private sector employees by county. It shows that Nairobi county has the highest number of private sector employees. The private sector employees in the county constituted 39.80 per cent of the total. This was followed by Nakuru and Mombasa counties with 9.18 and 9.07 per cent of the total private sector employees, respectively. The data presented also shows that Mandera, Tana River and Wajir counties have the lowest count of private sector employees, averaging 0.03 per cent of the total. The survey findings on the distribution of private sector employees are consistent with the relative concentration of economic activities in different regions of the country.

Table 3.11: Distribution of Private Sector Employees by County

County	Male	Female	Total
1. Nairobi	383,578	147,815	531,393
2. Mombasa	92,885	28,137	121,022
3. Kwale	6,578	1,907	8,485
4. Kilifi	21,908	12,819	34,727
5. Tana River	239	106	345
6. Lamu	3,415	1,264	4,679
7. Taita Taveta	2,238	1,225	3,463
8. Garissa	735	600	1,335
9. Wajir	171	63	234
10. Mandera	334	19	353
11. Marsabit	675	505	1,180
12. Isiolo	977	783	1,760
13. Meru	15,545	33,751	49,296
14. Tharaka-Nithi	2,573	922	3,495
15. Embu	3,795	3,360	7,155
16. Kitui	4,622	2,291	6,913
17. Machakos	4,847	2,517	7,364
18. Makueni	258	336	594
19. Nyandarua	8,993	9,579	18,572
20. Nyeri	9,247	5,340	14,587
21. Kirinyaga	7,891	6,277	14,168

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22. Muranga	13,928	8,323	22,251
23. Kiambu	47,005	18,049	65,054
24. Turkana	1,708	941	2,649
25. West Pokot	3,169	1,925	5,094
26. Samburu	384	225	609
27. Trans-Nzoia	7,066	3,520	10,586
28. Uasin Gishu	36,738	13,346	50,084
29. Elgeyo Marakwet	2,978	1,222	4,200
30. Nandi	34,581	12,470	47,051
31. Baringo	2,048	1,516	3,564
32. Laikipia	5,888	3,800	9,688
33. Nakuru	72,257	50,256	122,513
34. Narok	4,357	1,330	5,687
35. Kajiado	26,857	8,681	35,538
36. Bomet	9,184	5,573	14,757
37. Kericho	14,547	6,698	21,245
38. Kakamega	7,001	3,400	10,401
39. Vihiga	2,760	1,705	4,465
40. Bungoma	4,111	1,584	5,695
41. Busia	1,488	638	2,126
42. Siaya	1,866	1,117	2,983
43. Kisumu	25,116	11,437	36,553
44. Homa Bay	1,159	880	2,039
45. Migori	2,521	1,202	3,723
46. Kisii	8,964	3,344	12,308
47. Nyamira	1,998	878	2,876
Not Stated	82	99	181
Total	911,261	423,779	1,335,040

CHAPTER FOUR

SURVEY FINDINGS AND DISCUSSIONS

4.1 Introduction

The overall goal of the NMS is to facilitate establishment of a National Skills Inventory. The skills analysis in this Report is anchored on the occupational classification contained in the Kenya National Occupational Classification Standards-2000 (KNOCS-2000). The KNOCS-2000 is based on the International Standard Classification of Occupations-1988 (ISCO-1988). The KNOCS-2000 describes occupational classification at nine major groups with each of them detailed further up to the fifth level. In this context, the major groups are classifications at level one and are highly aggregated while the second, third, fourth and fifth levels are more specific, with the fifth being most specific. The skill inventory discussed in this Basic Report is given at major occupation group level one. A more detailed analysis of the specific skills at lower occupation groups will be done in the Analytical Reports. However, where emphasis was felt necessary discussions have been given at three digit levels. Appendix 2 gives a summary of occupational classification at the three digit level.

4.2 Inventory, Characteristics and Distribution of Skilled Manpower in Kenya

The first objective of the NMS was to take the inventory, characteristics and distribution of skilled manpower within the different sectors of the economy. This is assessed for the public and private sectors of the economy as highlighted in the sections that follow.

4.2.1 Stock of Skills in the Public Sector

Figure 4.1 gives a schematic representation of the stock of skills held by the public sector employees who responded to the survey instrument.

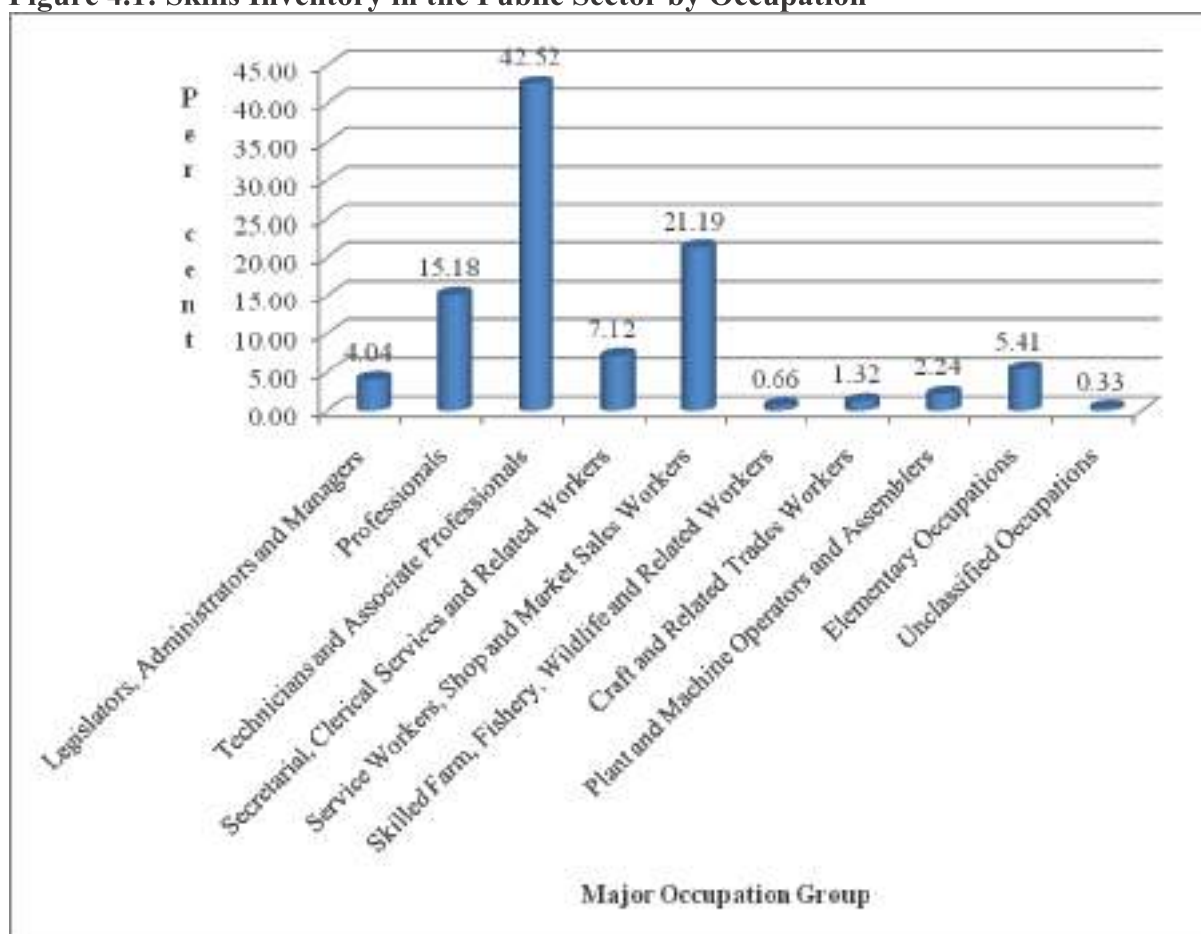
Figure 4.1: Skills Inventory in the Public Sector by Occupation

Figure 4.1 show that the dominant occupation category in the public sector is that of Technicians and Associate Professionals. This group of employees constituted 42.52 per cent of the public sector employees who responded. This group is followed by Service Workers, Shop and Market Sales Workers, and Professionals who constituted 21.19 and 15.18 per cent of the public sector workers that responded to the instrument, respectively. According to the survey data, the major occupation group with the lowest proportion of workers in the public sector is Skilled Farm, Fishery, Wildlife and Related Workers. These group of employees represented 0.66 per cent of the total public sector employees that responded to the survey instrument.

Figure 4.1 also indicate that 0.33 per cent of the employees covered in the public sector were in unclassified occupations. This may be as a result of the occupations being new or non-existent in the current KNOCS. This is consistent with the fact that the KNOCS was last reviewed in 2000, hence outdated.

It is noted that the Kenyan labour market continues to experience considerable dynamism in skill acquisition and utilization. New occupations, titles and more modern work processes have emerged, particularly as a result of technological change. Regional economic integration, globalization and general economic growth and development have also led to emergence of new occupations, expansion in the existing ones and/or contraction in certain

occupations. The drive for productivity and competitiveness, and the dynamism in human resource management practices have also necessitated multi-skilling and multi-tasking. The outcome has been re-definition of occupations and emergence of new occupations. This makes it necessary that occupational classification standards are updated regularly to keep pace with the changing labour market environment.

The skill distribution of public sector employees who responded to the survey questionnaire shows a skewed skill mix in favour of professionals and technicians. From the data, the ratio of Professionals to that of Technicians and Associate Professionals, and that of Craft and Related Trades Workers is 12:33:1. This means that taking Craft and Related Trades Workers as the control, there are 12 Professionals and 33 Technicians and Associate Professionals for every one Craft and Related Trades Worker. Also, for every 33 Technicians and Associate Professionals, there is only one Craft and Related Trades Worker.

Similarly, the ratio of Technicians and Associate Professionals to that of Craft and Related Trades Workers, and Plant and Machine Operators and Assemblers is 33:1:2. This means that for every 33 Technicians and Associate Professionals, there is only one Craft and Related Trades Worker and two Plant and Machine Operators and Assemblers. Also, for every one Craft and Related Trades Worker, there are two Plant and Machine Operators and Assemblers.

Kenya's public sector has a large pool of employees in the teaching fraternity. These are categorized under major occupation group two (Professionals) and three (Technicians and Associate Professionals). Those categorized in the major occupation group of Professionals are the University and Post-Secondary Teachers/Lecturers, Secondary and Technical Institute Teachers and Instructors, Special Education Teaching Professionals, Education Methods Advisors and Assessors, and Other Teaching Professionals. Those classified as Technicians and Associate Professionals are the Primary Education Teachers, Pre-Primary Education Teachers, and Other Teachers and Instructors. These groups of teachers are large in number and may constitute an outlier group.

Without the teachers, the ratio of Professionals to that of Technicians and Associate Professionals, and that of Craft and Related Trades Workers becomes 6:7:1. This means that taking Craft and Related Trades Workers as the control, there are six Professionals and seven Technicians and Associate Professionals for every one Craft and Related Trades Worker. Also, without the teachers the ratio of Technicians and Associate Professionals to that of Craft and Related Trades Workers, and Plant and Machine Operators and Assemblers is 7:1:2. This means that for every seven Technicians and Associate Professionals, there is only one Craft and Related Trades Worker and two Plant and Machine Operators and Assemblers.

Based on information gathered from the public sector employees who responded in the survey, there exists skill imbalance in the sector. The skill mix presented implies that the public sector has a bloated managerial workforce compared to the technical and support staff. The data presented and the resultant skill ratios show that the support staff ratio is too low to guarantee provision of meaningful support services. Though not directly comparable due to the service-oriented nature of the public sector, industrial and global competitiveness require a skill ratio of 1:15:45 for managerial, technical and support staff. The ratio presented for the public sector, with and without teachers, is out of step with the international benchmark.

The low managerial, technical and support staff balance can be attributed to the freeze on employment particularly for lower cadre employees. It is also attributed to improvement in the terms and conditions of employment within the public service, especially for managerial cadres. This makes the service to be attractive to the managerial cadre thereby limiting the flight of the employee category in question besides enhancing their retention. Equally, the government has increasingly contracted out support services, especially those that are considered non-essential to the core mandate of the government. This has drastically reduced the number of, and the demand for, support staff in the service. Overall, the skewed nature of the skill mix has inherent implications for service delivery within the public service.

Further analysis of the survey data also shows that majority of the Technicians and Associate Professionals who responded were primary education teachers. Similarly, protective service workers were the majority in the major occupation group of Service Workers, Shop and Market Sales Workers while secondary and technical institute teachers and instructors were the most dominant sub-category of Professionals who responded to the survey questionnaire. Also, Forestry and Related Workers were the majority in the major occupation group of Skilled Farm, Fishery, Wildlife and Related Workers who responded to the survey questionnaire.

4.2.1.1 Characteristics of Skilled Manpower in the Public Sector

Table 4.1 and Figure 4.2 give the characteristics of the public sector employees who responded to the questionnaire by occupations and sex. Both Table 4.1 and Figure 4.2 show that males are the majority in all the major occupation groups. The only exception is Secretarial, Clerical Services and Related Workers where females are the majority.

Table 4.1: Skilled Manpower in the Public Sector by Sex

Major Group	Occupational Categories	Male (%)	Female (%)	Total (Number)
1.	Legislators Administrators and Managers	2.47	1.58	17,930
2.	Professionals	9.26	5.92	67,328
3.	Technicians and Associate professionals	25.94	16.59	188,651
4.	Secretarial Clerical Services and Related Workers	4.34	2.78	31,581
5.	Service Workers, Shop and Market Sales Workers	12.92	8.27	94,004
6.	Skilled Farm, Fishery, Wildlife and Related Workers	0.40	0.26	2,910
7.	Craft and Related Trades Workers	0.80	0.51	5,837
8.	Plant and Machine Operators and Assemblers	1.36	0.87	9,920
9.	Elementary Occupations	3.30	2.11	23,993
99999	Unclassified Occupations	0.20	0.13	1,471
	Total	60.99	39.01	443,625

Figure 4.2: Skilled Manpower in the Public Sector by Sex

Table 4.1 and Figure 4.2 reveal the sex imbalance in occupations. As illustrated in Figure 4.2, the highest disparity is in the major occupation group of Technicians and Associate Professionals where the proportion of males is higher than that of females by 9.35 percentage points. The other occupational category with marked sex disparities in favour of males are Service Workers, Shop and Market Sales Workers (4.65 percentage points), Professionals (3.34 percentage points) and Plant and Machine Operators and Assemblers (1.19 percentage points). According to the data, females are relatively more concentrated in the Secretarial, Clerical Services and Related Workers where the differential is 1.56 percentage points in favour of the female gender.

The sex differential in the occupations is a manifestation of the disproportionate levels of employment of men and women. It is attributed to the prejudices held by the labour market participants. The prejudices consider some occupations as male occupations while others are considered to be female occupations. This trend is, however, slowly changing as a consequence of change in attitudes and job selectiveness amongst job seekers, high levels of unemployment and affirmative action being implemented by the government.

Figure 4.3 gives the distribution of public sector employees who responded to the survey instrument by occupations and age. The illustrations indicate that Technicians and Associate Professionals is the dominant major occupation group across the age cohorts.

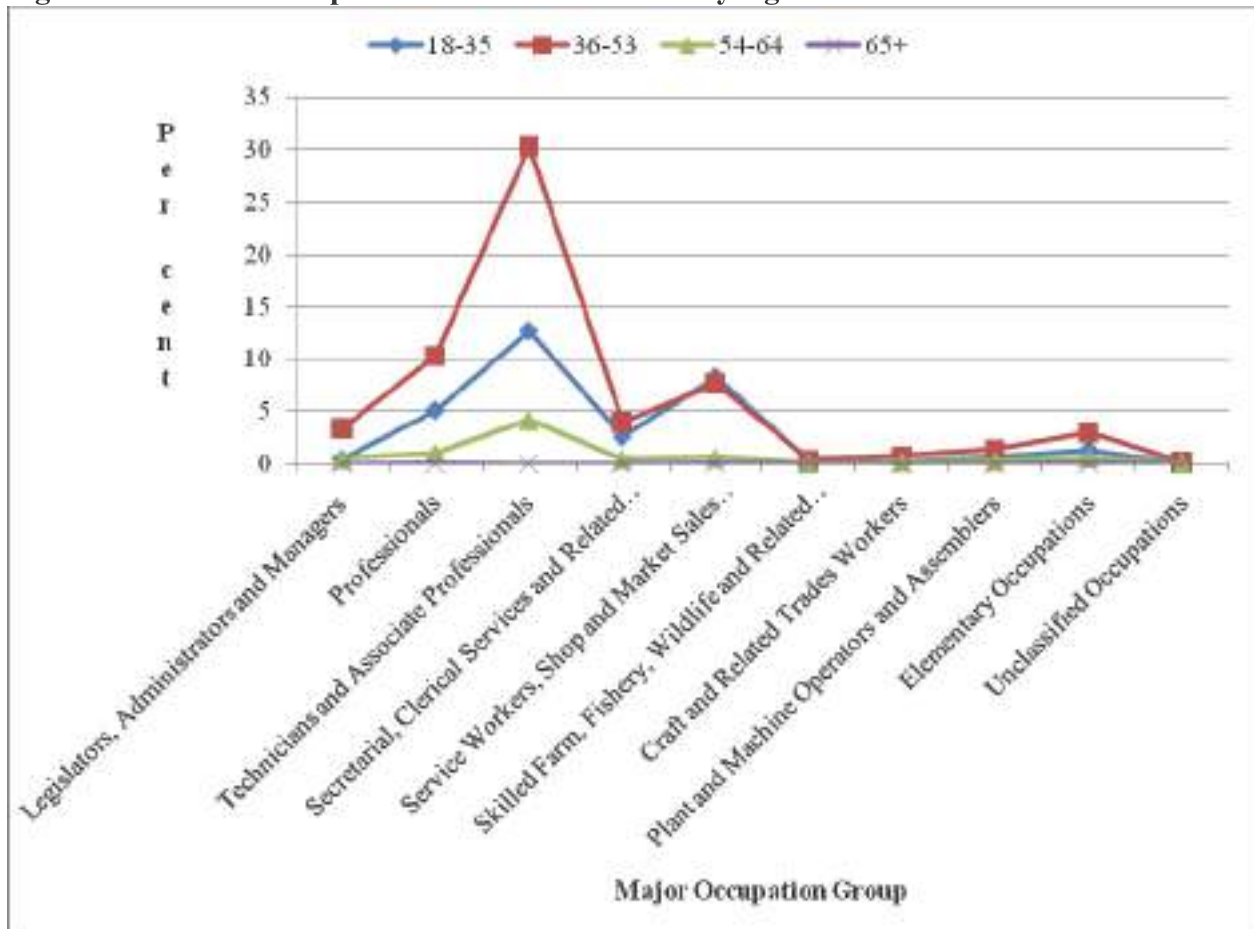
Figure 4.3: Skilled Manpower in the Public Sector by Age

Figure 4.3 indicates that the 36-53 age groups are highly represented in all the occupations compared to the other age groups. Data on the public sector employees who responded shows that the proportion of the youth is slightly higher (7.83%) in Service Workers, Shop and Market Sales Workers than the 36-53 age categories which accounts for an estimated 7.21 per cent.

Table 4.2 gives details the proportion of the public sector employees in the various occupation groups by age.

Table 4.2: Skill Inventory in the Public Sector by Occupation and Age (Per cent)

Age	Legislators And Managers	Professionals	Technicians and Associate Professionals	Secretarial and Related Workers	Service Workers and Shop and Market Sales Workers	Skilled Farm Fishery Wildlife and Related Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Unclassified Occupations	Total (Number)
15 - 17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2
18 - 23	0.01	0.12	0.40	0.19	0.85	0.01	0.01	0.01	0.10	0.01	7,507
24 - 29	0.11	1.78	3.59	1.02	4.17	0.17	0.07	0.21	0.53	0.04	51,871
30 - 35	0.34	2.94	7.93	1.27	2.81	0.16	0.13	0.43	0.68	0.06	74,288
36 - 41	0.89	3.62	8.85	1.27	2.90	0.12	0.16	0.43	0.72	0.06	84,397
42 - 47	1.16	3.49	10.01	1.31	2.38	0.14	0.22	0.40	0.87	0.07	88,962
48 - 53	1.15	2.58	9.63	1.23	1.93	0.14	0.37	0.48	1.27	0.08	83,628
54 - 59	0.43	0.87	3.91	0.39	0.54	0.05	0.15	0.22	0.47	0.03	31,317
60 - 64	0.00	0.04	0.02	0.00	0.02	0.00	0.00	0.00	0.03	0.00	543
65+	0.00	0.01	0.01	0.00	0.02	0.00	0.00	0.00	0.03	0.00	325
Not Stated	0.14	0.94	2.03	0.33	0.62	0.03	0.05	0.11	0.32	0.10	20,785
Total	4.04	15.18	42.52	7.12	21.19	0.66	1.32	2.24	5.41	0.33	443,625

4.2.1.2 Distribution of Skilled Manpower in the Public Sector

Table 4.3 gives the percentage distribution of public sector employees who responded to the survey by occupation and county. The county-specific skill distribution shows that the dominant occupations in the counties are Technicians and Associate Professionals, Service Workers, Shop and Market Sales Workers, and Professionals. Disaggregated data of the public sector employees who responded to the questionnaires in the respective counties shows that majority of the public sector employees in the major occupation group of Technicians and Associate Professionals were Primary Education Teachers while majority of those in the major occupation group of Service Workers, Shop and Market Sales Workers were Protective Service Workers. These included police officers, prison warders and local authority *askaris*.

Table 4.3: Distribution of Skilled Manpower in the Public Sector by County (Per cent)

County/ Major Occupation Group	Legislators and Managers	Professionals	Technicians and Associate	Secretarial Clerical Services and Related Workers	Service Workers Shop and Market Sales Workers	Skilled Farm Fishery and Wildlife and Related Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Unclassified Occupations	Total (Number)
Nairobi	1.00	3.76	10.53	1.76	5.25	0.16	0.33	0.55	1.34	0.08	109,828
Mombasa	0.12	0.44	1.22	0.20	0.61	0.02	0.04	0.06	0.16	0.01	12,716
Kwale	0.04	0.14	0.40	0.07	0.20	0.01	0.01	0.02	0.05	0.00	4,129
Kilifi	0.06	0.23	0.65	0.11	0.32	0.01	0.02	0.03	0.08	0.01	6,776
Tana River	0.03	0.13	0.36	0.06	0.18	0.01	0.01	0.02	0.05	0.00	3,770
Lamu	0.02	0.09	0.25	0.04	0.12	0.00	0.01	0.01	0.03	0.00	2,602
Taita Taveta	0.05	0.19	0.52	0.09	0.26	0.01	0.02	0.03	0.07	0.00	5,450
Garissa	0.07	0.27	0.76	0.13	0.38	0.01	0.02	0.04	0.10	0.01	7,918
Wajir	0.04	0.14	0.39	0.07	0.19	0.01	0.01	0.02	0.05	0.00	4,056
Mandera	0.03	0.12	0.34	0.06	0.17	0.01	0.01	0.02	0.04	0.00	3,598
Marsabit	0.05	0.17	0.48	0.08	0.24	0.01	0.01	0.03	0.06	0.00	5,003
Isiolo	0.03	0.13	0.37	0.06	0.18	0.01	0.01	0.02	0.05	0.00	3,839
Meru	0.10	0.37	1.05	0.18	0.52	0.02	0.03	0.06	0.13	0.01	10,937
Tharaka-Nithi	0.04	0.14	0.40	0.07	0.20	0.01	0.01	0.02	0.05	0.00	4,143
Embu	0.08	0.32	0.88	0.15	0.44	0.01	0.03	0.05	0.11	0.01	9,226
Kitui	0.07	0.28	0.77	0.13	0.39	0.01	0.02	0.04	0.10	0.01	8,063
Machakos	0.08	0.32	0.88	0.15	0.44	0.01	0.03	0.05	0.11	0.01	9,208
Makueni	0.07	0.25	0.71	0.12	0.36	0.01	0.02	0.04	0.09	0.01	7,433
Nyandarua	0.06	0.21	0.59	0.10	0.30	0.01	0.02	0.03	0.08	0.00	6,206
Nyeri	0.12	0.45	1.25	0.21	0.62	0.02	0.04	0.07	0.16	0.01	13,017
Kirinyaga	0.05	0.19	0.53	0.09	0.27	0.01	0.02	0.03	0.07	0.00	5,578
Muranga	0.07	0.25	0.71	0.12	0.35	0.01	0.02	0.04	0.09	0.01	7,382
Kiambu	0.16	0.60	1.68	0.28	0.84	0.03	0.05	0.09	0.21	0.01	17,573

Turkana	0.04	0.14	0.40	0.07	0.20	0.01	0.01	0.02	0.05	0.00	4,168
West Pokot	0.04	0.16	0.44	0.07	0.22	0.01	0.01	0.02	0.06	0.00	4,556
Samburu	0.03	0.10	0.29	0.05	0.15	0.00	0.00	0.02	0.04	0.00	3,055
Trans-Nzoia	0.06	0.21	0.59	0.10	0.30	0.01	0.01	0.03	0.08	0.00	6,204
Uasin Gishu	0.08	0.30	0.84	0.14	0.42	0.01	0.01	0.04	0.11	0.01	8,712
Elgeyo Marakwet	0.05	0.18	0.51	0.08	0.25	0.01	0.01	0.03	0.06	0.00	5,272
Nandi	0.05	0.20	0.55	0.09	0.28	0.01	0.01	0.03	0.07	0.00	5,767
Baringo	0.07	0.27	0.76	0.13	0.38	0.01	0.01	0.04	0.10	0.01	7,887
Laikipia	0.05	0.20	0.57	0.10	0.28	0.01	0.01	0.03	0.07	0.00	5,939
Nakuru	0.23	0.86	2.41	0.40	1.20	0.04	0.04	0.13	0.31	0.02	25,123
Narok	0.05	0.18	0.51	0.09	0.26	0.01	0.01	0.03	0.07	0.00	5,355
Kajiado	0.05	0.19	0.53	0.09	0.27	0.01	0.01	0.03	0.07	0.00	5,554
Bomet	0.05	0.18	0.50	0.08	0.25	0.01	0.01	0.03	0.06	0.00	5,170
Kericho	0.05	0.18	0.50	0.08	0.25	0.01	0.01	0.03	0.06	0.00	5,255
Kakamega	0.10	0.39	1.10	0.18	0.55	0.02	0.02	0.06	0.14	0.01	11,471
Vihiga	0.05	0.19	0.52	0.09	0.26	0.01	0.01	0.03	0.07	0.00	5,452
Bungoma	0.08	0.31	0.88	0.15	0.44	0.01	0.01	0.05	0.11	0.01	9,186
Busia	0.06	0.22	0.61	0.10	0.30	0.01	0.01	0.03	0.08	0.00	6,322
Siaya	0.05	0.17	0.49	0.08	0.24	0.01	0.01	0.03	0.06	0.00	5,070
Kisumu	0.13	0.50	1.41	0.24	0.70	0.02	0.02	0.07	0.18	0.01	14,687
Homa Bay	0.05	0.17	0.48	0.08	0.24	0.01	0.01	0.03	0.06	0.00	5,023
Migori	0.06	0.24	0.67	0.11	0.33	0.01	0.01	0.04	0.09	0.01	7,005
Kisii	0.09	0.32	0.91	0.15	0.45	0.01	0.01	0.05	0.12	0.01	9,484
Nyamira	0.03	0.12	0.33	0.06	0.17	0.01	0.01	0.02	0.04	0.00	3,458
Total	4.04	15.18	42.52	7.12	21.19	0.66	1.32	2.24	5.41	0.33	443,625

In terms of economic activities, majority (52.77%) of public sector employees who responded to the questionnaire were in Public Administration and Defence, and Compulsory Social Security. The survey data also reveals that 41.54 per cent of the public sector employees were in Education while 4.36 per cent were engaged in Human Health and Social Work Activities. Table 4.4 gives the distribution of the employees by occupation and economic activities.

Table 4.4: Distribution of Skilled Manpower in the Public Sector by Occupation and Economic Activity (Per cent)

Economic Activity	Legislators and Administrators	Professionals	Technicians and Associate Professionals	Secretarial and Related Workers	Service Workers Shop and Market Sales Workers	Skilled Farm and Related Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Unclassified Occupations	Total (Number)
Agriculture Forestry and Fishing	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	60
Manufacturing	0.01	0.07	0.09	0.07	0.02	0.01	0.07	0.09	0.07	0.02	2,269
Electricity Gas Steam and Air Conditioning Supply	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.02	0.00	0.00	224
Water Supply Sewerage Waste Management and Remediation Activities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16
Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23
Wholesale and Retail Trade Repair of Motor Vehicles and Motor Cycles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8
Transportation and Storage	0.03	0.14	0.03	0.03	0.06	0.00	0.01	0.02	0.01	0.00	1,440
Accommodation and Food Service Activities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8
Information and Communication	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31
Financial and Insurance Activities	0.03	0.05	0.01	0.14	0.02	0.00	0.00	0.01	0.02	0.00	1,223
Real Estate Activities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	92
Professional Scientific and Technical Activities	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	95
Administrative and Support Service Activities	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	153

Public Administration and Defence Compulsory Social Security	3.45	5.67	14.10	6.02	15.51	0.77	0.96	2.01	3.97	0.30	234,088
Education	0.68	7.85	30.94	0.52	0.57	0.02	0.09	0.10	0.68	0.09	184,297
Human Health and Social Work Activities	0.03	2.58	1.18	0.18	0.05	0.00	0.03	0.06	0.23	0.03	19,364
Arts Entertainment and Recreation	0.00	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	212
Unclassified	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23
Total	4.04	15.18	42.52	7.12	21.19	0.66	1.32	2.24	5.41	0.33	443,625

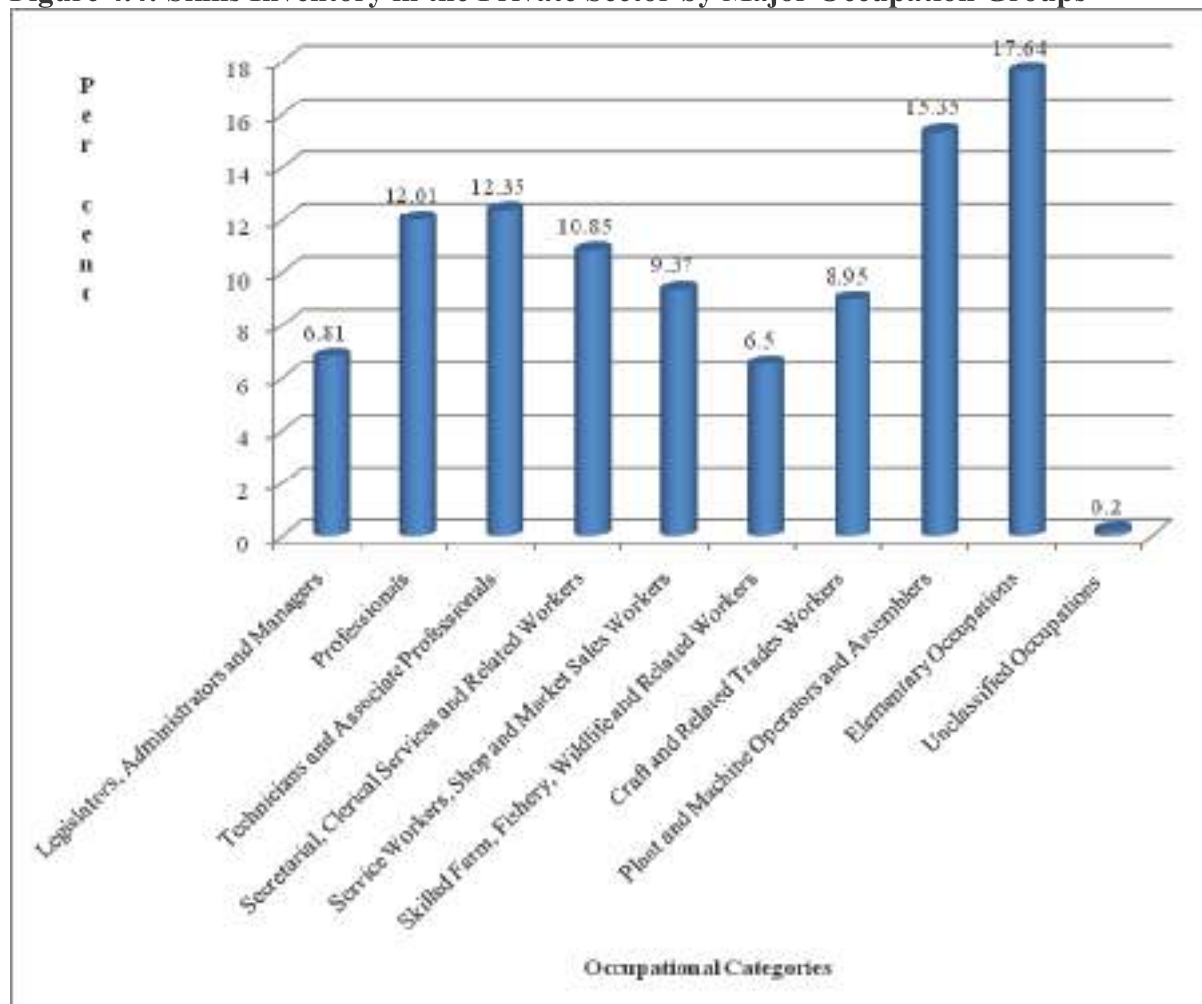
Further analysis of the public sector data shows that most of the public sector employees in Public Administration and Defence, and Compulsory Social Security were in the Major Occupation Group of Service Workers, Shop and Market Sales Workers. A cross tabulation between Major Occupation Group of Service Workers, Shop and Market Sales Workers at three digit level, and Public Administration, Defence, and Compulsory Social Security at three digit level showed that majority of the workers in this category are Protective Service Workers engaged in public order and safety activities. The other dominant group are the Protective Service Workers engaged in the general public administration activities.

The data also showed that majority of public sector employees in Education were Technicians and Associate Professionals. A cross tabulation between the Major Occupation Group of Technicians and Associate Professionals at three digit level, and Education at the three digit level showed that almost all the workers in this group were Primary Education Teachers engaged in Pre-primary and primary education activities. Pre-primary education teachers in the Pre-primary and primary education activities were slightly more than one per cent of the total number of public sector employees in this category.

The data also showed that majority of the public sector employees engaged in Human Health and Social Work Activities were Professionals. A cross tabulation between Major Occupation Group Two (Professionals) and Human Health and Social Work Activities showed that Nursing and Mid-Wifery Professionals are the majority in the broad economic activity of Human Health and Social Work Activities. Nursing and Mid-Wifery Professionals engaged in hospital activities were the majority amongst the Professionals working in hospital activities in the public sector.

4.2.2 Stock of Skills in the Private Sector

Skill distribution in the private sector is almost trough shaped with some level of skill concentration on the right. According to the survey data, 48.44 per cent of the employees are in the last four major occupation groups while 42 per cent are in the first four major occupation groups. Figure 4.4 gives the distribution of private sector employees by major occupation groups.

Figure 4.4: Skills Inventory in the Private Sector by Major Occupation Groups

The schematization in Figure 4.4 shows that most of the private sector employees are in the major occupation groups of Elementary Occupations, and Plant and Machine Operators and Assemblers. Private sector workers in Elementary Occupations constituted 17.64 per cent of the total private sector employees while those in the category of Plant and Machine Operators and Assemblers constitute 15.35 per cent of the total private sector employees. Technicians and Associate Professionals is the third most dominant occupation in the private sector. It constitutes 12.35 per cent of the total private sector employees. The data presented also shows that Skilled Farm, Fishery, Wildlife and Related Workers are the minority, constituting 6.5 per cent of all the private sector employees.

Further analysis of the survey data showed that slightly more than a quarter (26.09%) of the private sector employees in Elementary Occupations are Farm Hands and Related Labourers. This group is followed by Cleaners, Launderers and Domestic Workers at 20.18 per cent, and Messengers, Porters, Watchmen and Related Workers at 15.41 per cent. Further, of the private employees who are under the major occupation group of Plant and Machine Operators and Assemblers, the majority were Motor Vehicle Drivers. They constituted 22.71 per cent of all the private sector workers in the major occupation under reference. In this context, Tea and Coffee Processing Machine Operators constituted 19.60 per cent of the total private sector

employees in the broad group of Plant and Machine Operators and Assemblers. The Machine Tool and Other Metal Working Machine Operators constituted 14.06 per cent of the workers in the broad occupational category of Plant and Machine Operators and Assemblers.

For Technicians and Associate Professionals, Business and Public Service Middle level Personnel were the majority at 26.05 per cent. This group was followed by Business Service Agents at 20.23 per cent while Primary Education Teachers constituted 10.97 per cent of the Technicians and Associate Professionals in the private sector.

Further analysis of the skill distribution in the private sector shows that the ratio of Professionals to that of Technicians and Associate Professionals and, Craft and Related Trades Workers is 134:138:100. This means that there are 134 Professionals and 138 Technicians and Associate Professionals for every 100 Craft and Related Trades Workers. Similarly, the skill ratio between Technicians and Associate Professionals to that of Craft and Related Trades Workers, and Machine Operators and Assemblers is 138:100:172. This means that there are 138 Technicians and Associate Professionals and 172 Machine Operators and Assemblers for every 100 Craft and Related Trades Workers.

When teachers are removed, then the ratio of Professionals to that of Technicians and Associate Professionals and, Craft and Related Trades Workers becomes 111:118:100. This means that there are 111 Professionals and 118 Technicians and Associate Professionals for every 100 Craft and Related Trades Workers. Also, the skill ratio between Technicians and Associate Professionals to that of Craft and Related Trades Workers, and Machine Operators and Assemblers without the teachers is 118:100:172. This means that there are 118 Technicians and Associate Professionals and 172 Machine Operators and Assemblers for every 100 Craft and Related Trades Workers.

The data on skill ratios show that in the private sector, the skill mix between managerial, technical and support staff is almost equalizing. The skill ratio for the private sector, with and without the teachers, is not consistent with the international benchmark of 1:15:45. It shows that the private sector has a relatively bloated managerial and technical cadre as compared to the support cadre. The skewed skill mix in favour of the managerial and technical staff may be rationalized within the framework of the multitasking and multi-skilling traits in the private sector. The skewed skill mix in favour of managerial and technical staff can be attributed to tendency by some private sector organizations to attach managerial titles even to employees in non-managerial occupations.

4.2.2.1 Characteristics of Skilled Manpower in the Private Sector

Table 4.5 gives a summary of the distribution of skilled manpower in the private sector by sex. It shows that males dominate in all the major occupation groups except in Secretarial, Clerical Services and Related Workers.

Table 4.5: Skilled Manpower in the Private Sector by Sex

Major Group	Occupational Categories	Male	Female	Total
1.	Legislators Administrators and Managers	70,324	20,560	90,884
2.	Professionals	102,924	57,451	160,375
3.	Technicians and Associate professionals	106,830	58,009	164,839
4.	Secretarial Clerical Services and Related Workers	54,229	90,354	144,583
5.	Service Workers, Shop and Market Sales Workers	82,172	42,863	125,035
6.	Skilled Farm, Fishery, Wildlife and Related Workers	51,807	34,945	86,752
7.	Craft and Related Trades Workers	110,833	8,614	119,447
8.	Plant and Machine Operators and Assemblers	169,953	35,038	204,991
9.	Elementary Occupations	159,849	75,652	235,501
99999	Unclassified Occupations	2,358	275	2,633
	Total	911,261	423,779	1,335,040

The data presented in Table 4.5 shows that the male-female imbalance in the occupations is more pronounced in the occupation group of Craft and Related Trades Workers. The sex disparity in employment in this group is such that for every one female employee in the major occupation group of Craft and Related Trades Workers, there are 13 male employees.

The male-female imbalance illustrated in Table 4.5 is a reflection of Kenya's employment dynamics. The imbalance may be attributed to socio-cultural practices and attitudes that have been unfavourable to the educational and occupational choices of the females. In this case, some occupations are considered to be male occupations while others are taken to be female occupations.

To address the gender imbalances, the government has been implementing various affirmative and empowerment programmes mainly aimed at promoting access to education, skill development and employment, and demystifying the occupational segregation. The interventions include compulsory basic education, lowering of university cut-off entry points for girls, affirmative action in public employment. In addition, government agencies such as MoHEST and the National Industrial Training Authority (NITA) are awarding scholarships to females who wish to venture in the traditional male occupations.

Figure 4.5 gives a comparative analysis of the skilled manpower in the private sector by occupations and sex.

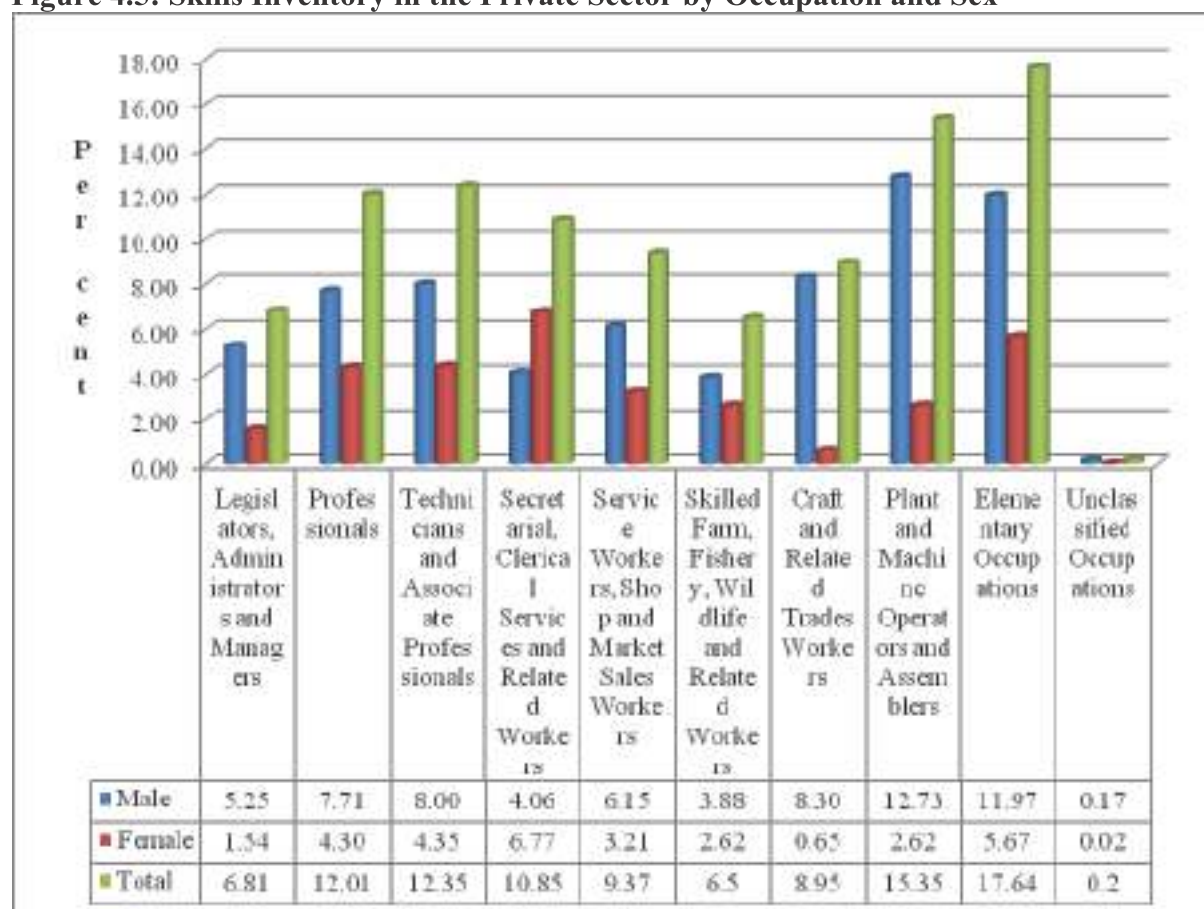
Figure 4.5: Skills Inventory in the Private Sector by Occupation and Sex

Figure 4.6 and Table 4.6 gives a comparative analysis of skilled manpower in the private sector by occupations and age. As illustrated in both Figure 4.6 and Table 4.6, the youth aged 18-35 years are the majority in the private sector. They are also proportionately represented in all the occupations. Another striking feature of the data presented is the presence of children aged 5-17 years who constituted 0.04 per cent of the total number of workers in the sector. Though a small proportion in relation to the total, it manifests existence of child labour in the sector.

Figure 4.6: Skills Inventory in the Private Sector by Occupation and Age

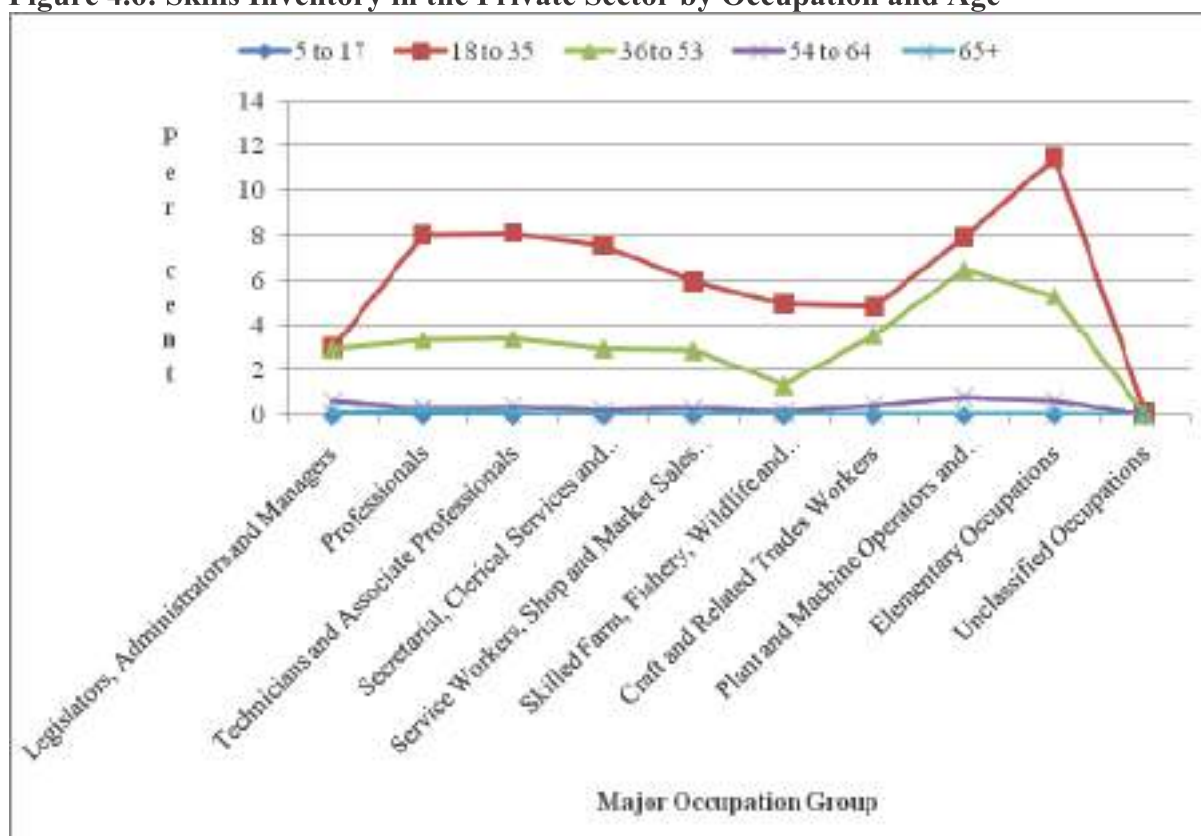


Table 4.6: Skills Inventory in the Private Sector by Occupation and Age

Age (Years)	Legislators and Managers	Professionals	Technicians and Associate Professionals	Secretarial Clerical Services and Related Workers	Service Workers Shop and Market Sales Workers	Skilled Farm Fishery Wildlife and Related Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Unclassified Occupations	Total
5-9	0	0	0	0	0	0	0	0	28	0	28
10-14	0	0	0	0	0	0	0	0	22	0	22
15 - 17	0	0	0	0	115	62	53	0	170	0	400
18 - 23	1,681	13,106	15,666	16,411	15,809	13,541	9,700	9,761	32,264	227	128,166
24 - 29	16,692	57,825	54,525	51,048	34,325	32,148	26,198	41,087	69,999	1,098	384,945
30 - 35	21,972	36,890	38,478	33,968	29,617	20,420	28,700	55,231	51,426	417	317,119
36 - 41	17,241	23,335	26,216	21,212	19,624	11,786	19,243	45,280	38,123	238	222,298
42 - 47	13,826	13,064	10,169	13,045	12,189	4,007	14,811	22,960	18,438	254	122,763
48 - 53	8,557	8,904	9,490	5,684	6,866	2,286	13,722	18,829	14,657	137	89,132
54 - 59	6,491	2,616	3,532	2,418	3,043	1,447	5,077	8,426	6,101	138	39,289
60 - 64	2,007	1,073	1,734	390	921	543	977	2,249	2,205	0	12,099
65+	1,519	2,978	1,167	48	363	435	574	710	965	0	8,759
Not Stated	898	584	3,862	359	2,163	77	392	458	1,103	124	10,020
Total	90,884	160,375	164,839	144,583	125,035	86,752	119,447	204,991	235,501	2,633	1,335,040

The illustration presented in Figure 4.6 and Table 4.6 indicates that the private sector has a youthful workforce. According to the data presented in Table 4.6, the youth aged 18-35 years constitute 62.19 per cent of the total private sector employees. This means that slightly more than 6 in every 10 workers in the private sector are the youth. It can also be deduced from Table 4.6 that 16.65 per cent of the workers are in the 36-41 age cohort, 9.20 per cent are in the 42-47 years category while 6.68 per cent are in the 48-53 years age group.

The relatively high proportion of the youth in the private sector may be rationalized on several grounds. First, the private sector appears to have mirrored the country's demographic structure. Second, the youth may be finding it much easier to access private sector jobs due to flexible recruitment practices. Third, the youth are considered to be more innovative and productive. They, therefore, fit well within the productivity orientation in the private sector. Fourth, the nature of the work in the private sector is more challenging and attractive to the youth. On the flip side, however, the private sector manifests high levels of staff turnover due to low job security. This makes it to attract the youth who are relatively risk takers more than the risk averse middle aged and aged workers.

4.2.2.2 Distribution of Skilled Manpower in the Private Sector

Table 4.7 gives a summary of the distribution of skilled manpower in the private sector by county. It reveals that Nairobi county has the highest number of private sector employees estimated at 39.80 per cent of the total. Nakuru county ranks second at 9.18 per cent of the total with Mombasa county being third at 9.07 per cent of the total. Data presented in Table 4.7 shows that Wajir, Tana River and Mandera have the lowest number of private sector employees, accounting for an average of 0.02 per cent of the private sector employees surveyed.

Table 4.7: Distribution of Skilled Manpower in the Private Sector by County

County/ Major Occupation Group	Legislators and Managers	Professionals	Technicians and Associate Professionals	Secretarial and Related Workers	Service Workers and Shop and Market Sales Workers	Skilled Farm and Related Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Unclassified Occupations	Total
Nairobi	46,614	83,733	83,389	64,223	37,415	3,211	60,376	75,903	75,532	1,000	531,396
Mombasa	9,541	13,650	16,429	21,563	11,196	750	15,015	18,155	14,654	69	121,022
Kwale	1,003	548	691	745	2,533	1,099	268	419	1,132	45	8,483
Kilifi	1,293	1,594	2,939	2,094	5,030	613	5,760	5,080	10,212	112	34,727
Tana River	44	48	9	87	87	5	28	5	31	0	344
Lamu	604	477	482	384	989	209	154	120	1,254	7	4,680
Taita Taveta	451	304	336	537	930	88	81	38	697	0	3,462
Garissa	522	64	95	190	347	3	47	4	64	0	1,336
Wajir	36	40	12	24	72	2	0	12	37	0	235
Mandera	31	38	20	50	99	11	45	46	15	0	355
Marsabit	24	252	320	77	147	0	73	23	263	0	1,179
Isiolo	192	194	459	194	343	20	50	31	276	2	1,761
Meru	932	2,217	3,409	6,044	3,434	8,553	1,218	13,347	10,088	52	49,294
Tharaka-Nithi	237	440	386	363	366	0	118	131	1,455	0	3,496
Embu	820	587	861	892	850	86	304	684	2,009	63	7,156
Kitui	205	1,525	854	849	1,960	7	215	183	1,104	10	6,912
Machakos	249	1,184	1,258	1,017	1,349	37	714	678	773	106	7,365
Makueni	40	66	104	136	170	0	0	12	65	0	593
Nyandarua	264	850	1,697	797	794	11,036	789	883	1,461	0	18,571
Nyeri	1,327	1,307	1,475	1,773	2,055	346	935	1,693	3,666	10	14,587
Kirinyaga	939	1,310	1,315	2,658	1,618	1,461	486	1,013	3,362	5	14,167
Muranga	1,656	1,513	1,472	3,387	1,027	3,067	360	3,666	6,071	32	22,251

Kiambu	3,424	6,533	6,134	5,606	8,757	1,608	6,079	12,754	13,962	197	65,054
Turkana	125	798	474	179	478	7	90	95	394	10	2,650
West Pokot	274	1,378	838	365	1,115	135	47	190	699	53	5,094
Samburu	140	47	114	67	129	0	8	14	90	0	609
Trans-Nzoia	995	1,725	2,391	952	2,244	183	297	426	1,372	0	10,585
Uasin Gishu	5,241	4,663	3,943	5,615	4,924	773	7,124	11,623	6,065	114	50,085
Elgeyo Marakwet	203	970	680	334	671	17	360	506	420	40	4,201
Nandi	329	848	769	1,946	2,261	340	137	30,581	9,603	236	47,050
Baringo	292	299	772	496	956	103	69	166	407	4	3,564
Laikipia	569	433	1,008	816	1,554	435	507	2,180	2,185	0	9,687
Nakuru	4,153	6,605	11,320	5,953	11,250	17,905	8,946	11,270	44,824	286	122,512
Narok	388	442	659	462	1,950	632	212	362	537	42	5,686
Kajiado	703	1,566	2,483	575	844	23,970	908	709	3,736	47	35,541
Bomet	344	4,219	1,432	2,069	1,340	187	691	2,505	1,970	0	14,757
Kericho	687	2,057	1,979	1,921	1,326	8,268	426	1,491	3,090	0	21,245
Kakamega	184	2,471	829	1,120	2,306	23	1,070	790	1,606	0	10,399
Vihiga	171	882	363	488	780	115	59	206	1,392	9	4,465
Bungoma	426	1,146	555	574	1,448	22	237	226	996	65	5,695
Busia	92	491	194	287	566	15	85	36	359	0	2,125
Siaya	163	676	639	287	571	15	135	139	359	0	2,984
Kisumu	3,884	5,727	6,916	3,809	4,328	62	4,252	3,541	4,017	17	36,553
Homa Bay	139	331	420	198	426	9	8	85	422	0	2,038
Migori	86	870	390	408	536	34	29	220	1,150	0	3,723
Kisii	662	3,039	1,234	1,519	1,341	697	526	2,143	1,148	0	12,309
Nyamira	177	196	276	422	74	593	109	603	426	0	2,876
Not Stated	9	22	15	31	49	0	0	4	51	0	181
Total	90,884	160,375	164,839	144,583	125,035	86,752	119,447	204,991	235,501	2,633	1,335,040

The data presented in Table 4.7 shows that majority of private sector employees in Nairobi county are Professionals. This group of workers is followed by Technicians and Associate Professionals, and employees in the major group of Plant and Machine Operators and Assemblers. The employees in these major occupation groups accounted for 15.76, 15.69 and 14.28 per cent of all the private sector employees in Nairobi county, respectively. In the case of Nakuru county, employees in Elementary Occupations were the majority at 36.59 per cent. Those in Skilled Farm, Fishery, Wildlife and Related Workers were the second largest group in Nakuru county. They make up 14.61 per cent of the private sector employees in the county. As for Mombasa county, majority of the workers are the Secretarial, Clerical Services and Related Workers, and Plant and Machine Operators and Assemblers. These groups of employees explained 17.82 and 15 per cent of the total private sector employees in Mombasa county, respectively.

The concentration of Professionals, and Technicians and Associate Professionals in Nairobi county may be attributed to the service nature of the capital city. Also, the relatively high proportion of the Skilled Farm, Fishery, Wildlife and Related Workers in Nakuru county may be attributed to the concentration of agricultural, tourism and wildlife activities in the county. The relatively high presence of employees in the Secretarial, Clerical Services and Related Workers, and Plant and Machine Operators and Assemblers in Mombasa county may be due to high concentration of documentation services and industrial activity in the county. Craft and related trades activities such as woodcarvings, basket making and general weaving also explains the relative dominance of Craft and Related Trades Workers in Mombasa county.

Disaggregated skills data of the Professionals in Nairobi county, at the three digit level, show that Accountants, Auditors and Tax Assessors constitute the highest number of Professionals in the county at 41.89 per cent. Computing Professionals are the second largest group of Professionals in the county at 14.5 per cent. In the case of Nakuru county, Farm Hands and Related Labourers are the majority in the Elementary Occupations. This category of employees constituted 76.28 per cent of the workers in Elementary Occupations in the county. As for Mombasa county, Material Recording and Transport Clerks were the majority in the group of Secretarial, Clerical Services and Related Workers. This group of employees represented 22.72 per cent of the total employees in this occupational category in the count.

4.3 Vacancies and Demand for Skills

The third objective of the NMS was to establish the number of vacancies and demand for skills. It sought to establish the vacant posts identified by the public and private sectors of the economy, and by the education and training institutions. The survey objective also sought to determine the demand for skills by the sectors in question, including the projected demand for skills for the period 2012 to 2014.

The data presented shows that there is co-existence of relatively high vacancy rates in public and private sectors of the economy, and in the education and training institutions with massive unemployment. This is a strong indication of skill mismatches in the economy. Also, the data generally shows wide variations between the demand for skills and the projected demand. This may be attributed to the inability of economic agents to make long-term forecasts.

4.3.1 Vacant Posts in the Public Sector by Occupation

Data from public sector institutions who responded to the survey questionnaire revealed a total of 172,465 vacant posts. Figure 4.7 gives an illustration of the distribution of the vacant posts by major occupation groups.

Figure 4.7: Vacant Posts in the Public Sector by Occupations

Figure 4.7 shows that majority of the vacant posts in the public sector institutions that responded to the survey questionnaire are in the major occupation group of Technicians and Associate Professionals; Professionals; Service Workers, Shop and Market Sales Workers; and Secretarial, Clerical Services and Related Workers. According to the data, vacant posts under the major occupation group of Technicians and Associate Professionals accounted for 25.86 per cent of the vacant posts while those for Professionals accounted for 19.72 per cent of the vacant posts. The vacant posts in the major occupation group of Service Workers, Shop and Market Sales Workers constituted 19.67 per cent of the vacant posts while those of Secretarial, Clerical Services and Related Workers accounted for 13.35 per cent of the vacant posts. The least number of vacant posts were attributed to Skilled Farm, Fishery, Wildlife and Related Workers; Craft and Related Trades Workers; and Legislators, Administrators and Managers. The three major occupation groups constituted 1.66, 2.72 and 3.09 per cent of the vacant posts, respectively.

The relatively high number of vacant posts in the major occupation group of Technicians and Associate Professionals; Professionals; Service Workers, Shop and Market Sales Workers; and Secretarial, Clerical Services and Related Workers may be explained within the organizational context of the public sector. In the public sector, vacancies in the higher occupational categories such as those of Technicians and Associate Professionals, and Professionals take a relatively longer time to fill. This is because of the stringent minimum

qualification requirements attached to the posts. Also, advertisements in the public sector mainly attract serving public servants. This means that filling such posts may create vacant posts horizontally within the same occupation or vertically in other occupations within the public sector.

Also, contrary to the spirit of public sector reforms such as e-government that anticipated that managers in the public sector would be computer literate and produce their own work, most managers in the public sector still rely on secretarial services. In addition, most of the managers have not embraced sharing of the services of the secretarial staff. Each office strives to maintain own secretary, copy typist and other related support staff. This could explain the high number of vacancies in the Secretarial, Clerical Services and Related Workers.

Further analysis of the vacant posts in the public sector showed that the vacant posts under the major occupation group of Technicians and Associate Professionals were mainly for Lands, Agricultural and Livestock Officials. Some of the vacant posts were also for Veterinary Assistants; and Athletes, Sportspersons and Other Related Workers. The vacant posts in the major occupation group of Professionals were mostly for Secondary and Technical Institute Teachers and Instructors, Chemical Engineers and Technologists, and Life Science Professionals. Also, the vacant posts in the major occupation group of Secretarial, Clerical Services and Related Workers were mainly for General Office Clerks, Secretaries, Stenographers and Typists, and Material Recording and Transport Clerks.

4.3.2 Vacant Posts in the Public Sector by Economic Activities

Table 4.8 gives the distribution of vacant posts reported by the public sector institutions who responded to the questionnaire by economic activities.

Table 4.8: Vacant Posts in the Public Sector by Economic Activity

Code	Economic Activity	Per cent	Number
110	Agriculture, Forestry and Fishing	0.05	85
1000	Manufacturing	0.92	1,590
4500	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	0.03	56
4900	Transportation and Storage	2.80	4,832
5500	Accommodation and Food Service Activities	0.11	189
5800	Information and Communication	1.51	2,604
6900	Professional, Scientific and Technical Activities	0.07	112
7700	Administrative and Support Service Activities	0.02	37
8400	Public Administration and Defense; Compulsory Social Security	87.83	151,471
8500	Education	2.78	4,795
8600	Human Health and Social Work Activities	0.03	56
9000	Arts, Entertainment and Recreation	0.01	10
9900	Activities of Extraterritorial Organizations and Bodies	0.01	19
99999	Unclassified Economic Activities	3.83	6,610
	Total	100.00	172,465

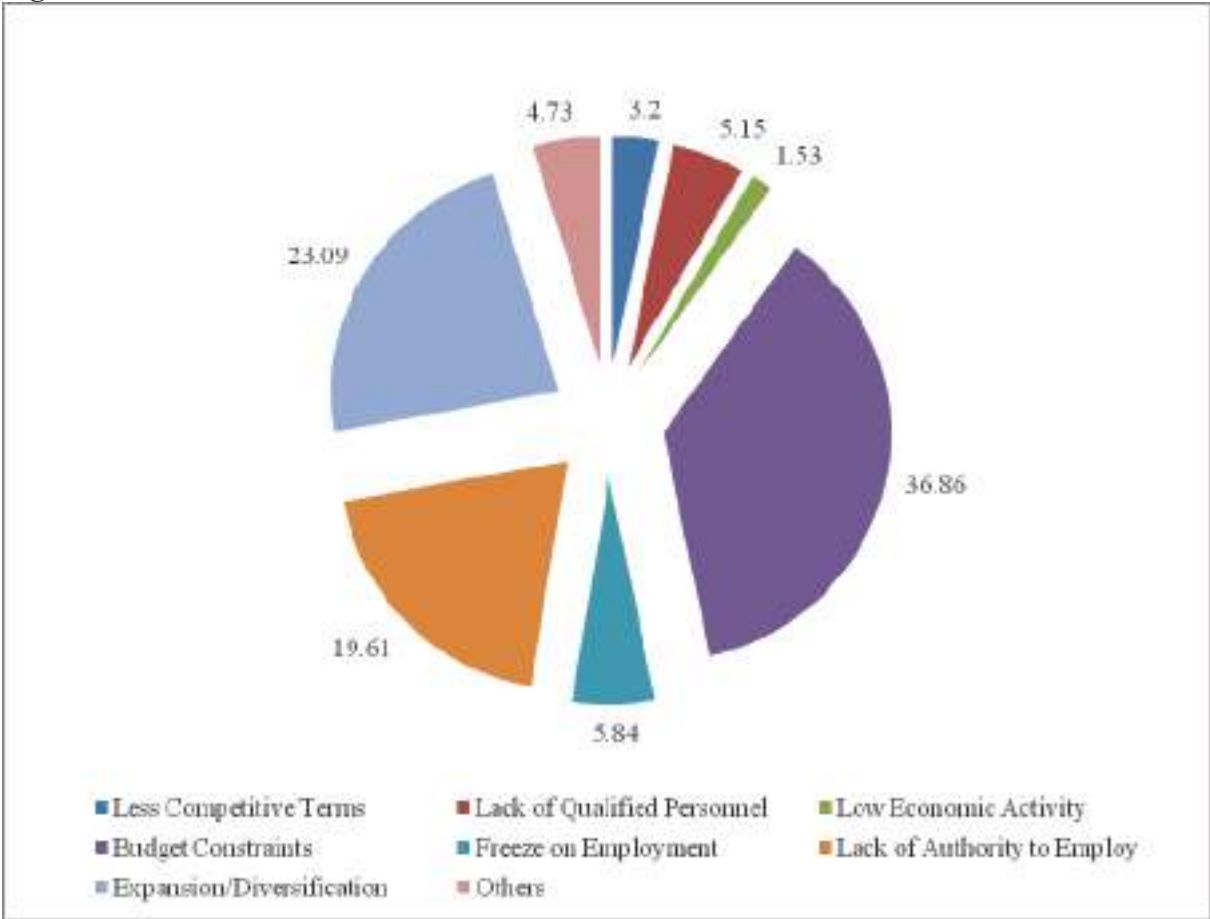
Table 4.8 shows that up to 87.83 per cent of the vacant posts are in Public Administration and Defence, and Compulsory Social Security. Minimal levels of reported vacant posts were in

Transport and Storage (2.80%), Education (2.78%) and Information and Communication (1.51%). About four per cent (3.83%) of the vacant posts were in unclassified economic activities.

4.3.3 Reasons for Vacant Posts in the Public Sector

Figure 4.8 gives a schematic representation of the reasons for vacant posts in the public sector as provided by the public sector institutions who responded to the survey questionnaire. It shows that the main reasons for existence of the vacant posts in the public sector were budget constraints, expansion/diversification, and lack of authority to employ. In this respect, budget constraint was cited 36.86 per cent of the times while expansion and diversification was mentioned 23.09 per cent of the times. Lack of authority to employ was cited 19.61 per cent of the times. The three reasons were cumulatively mentioned 79.56 per cent of the times. This means that about eight in every ten causes of vacant posts in the public sector is likely to be any one, two or all of the three aforementioned factors.

Figure 4.8: Reasons for Vacant Posts in the Public Sector



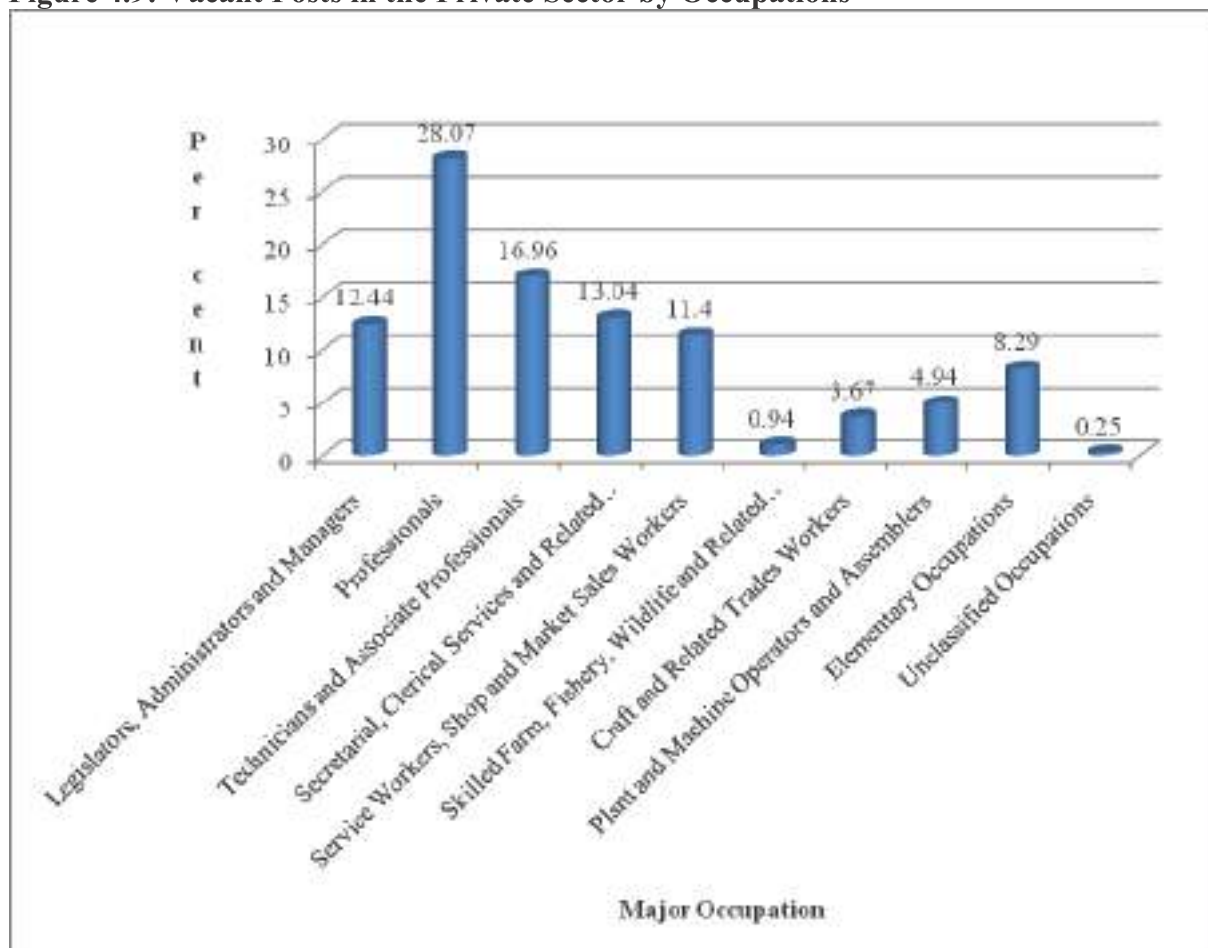
Prioritization of budget constraints, expansion/diversification, and lack of authority to employ as reasons for existence of vacant posts in the public sector is consistent with the current dynamics in the sector. In the public sector, indents for filling vacant posts can only be accepted upon confirmation of adequate budgetary provisions for personnel emoluments by the requiring public sector organization. However, most public sector organizations, especially those in the central government do not have sufficient budgets for personnel

emolument. This is due to the tight fiscal policy measures being pursued by the government. These measures are geared towards reducing and managing public sector wage bill. Similarly, the new constitutional dispensation devolves delivery of most public services to the county levels. The Constitution has also created new institutions. This may explain the vacant posts occasioned by demand for expansion/diversification. Finally, most of the vacant posts reported by the respondents in the public sector were for higher level occupations. These ordinarily entail relatively lengthy authorization procedures to fill.

4.3.4 Vacant Posts in the Private Sector by Occupation

Data collected through the NMS showed that there were 48,960 vacant posts in the private sector. The vacant posts were mainly in the major occupation groups of Professionals, Technicians and Associate Professionals, and Secretarial, Clerical Services and Related Workers. Figure 4.9 gives the distribution of the vacant posts in the private sector by occupation.

Figure 4.9: Vacant Posts in the Private Sector by Occupations



According to the survey data, the first four major occupation groups accounted for 70.51 per cent of the vacant posts reported in the private sector. In terms of intensity, the major occupation group of Professionals accounted for 28.07 per cent of the total vacant posts. Technicians and Associate Professionals, and Secretarial, Clerical Services and Related Workers constituted 16.96 and 13.04 per cent of the vacant posts, respectively. As illustrated

in Figure 4.9, Skilled Farm, Wildlife and Related Workers had the lowest proportion of vacant posts at 0.94 per cent.

Specific skills required in the vacant posts reported under the major occupation group of Professionals are Nursing and Mid-Wifery Professionals, Other Social Science and Related Professionals, and Accountants, Auditors and Tax Assessors. The three skill levels accounted for 67.79 per cent of the vacant posts in the major occupation group of Professionals. In the case of Technicians and Associate Professionals, most of the vacancies are for Business and Public Service Middle Level Personnel (32.46%), Non-Ordained Religious Assistants (22.30%) and Medical Assistants and Clinical Officers (7.71%). Slightly more than three-quarters (75.69%) of the vacant posts reported in the major occupation group of Secretarial, Clerical Services and Related Workers were for Cashiers, Tellers and Related Clerks, Numerical Clerks and Information Clerks. These skills accounted for 34.83, 21.10 and 19.76 per cent of the vacant posts in the said major occupation group, respectively.

4.3.5 Vacant Posts in the Private Sector by Economic Activities

Table 4.9 gives the distribution of the vacant posts in the private sector by economic activity.

Table 4.9: Vacant Posts in the Private Sector by Economic Activity

Code	Economic Activity	Per cent	Number
110	Agriculture, Forestry and Fishing	3.80	1,861
500	Mining and Quarrying	0.94	459
1000	Manufacturing	5.33	2,611
3600	Water Supply; Sewerage, Waste Management and Remediation Activities	0.45	222
4100	Construction	1.26	616
4500	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	9.52	4,662
4900	Transportation and Storage	0.82	402
5500	Accommodation and Food Service Activities	5.70	2,790
5800	Information and Communication	0.38	184
6400	Financial and Insurance Activities	15.05	7,369
6800	Real Estate Activities	0.56	272
6900	Professional, Scientific and Technical Activities	0.88	432
7700	Administrative and Support Service Activities	7.23	3,539
8400	Public Administration and Defense; Compulsory Social Security	0.04	22
8500	Education	8.26	4,046
8600	Human Health and Social Work Activities	24.19	11,841
9000	Arts, Entertainment and Recreation	0.06	27
9400	Other Service Activities	7.77	3,803
9900	Activities of Extraterritorial Organizations and Bodies	7.18	3,515
99999	Unclassified	0.59	287
	Total	100.00	48,960

Table 4.9 illustrates that 57.02 per cent of the vacant posts reported in the private sector are in three economic activities. These are Human Health and Social Work Activities (24.19%),

Financial and Insurance Activities (15.05%), Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles (9.52%) and Education (8.26%).

4.3.6 Reasons for Vacant Posts in the Private Sector

Figure 4.10 gives a schematic representation of the reasons given by employers in the private sector for existence of the vacant posts.

Figure 4.10: Reasons for Vacant Posts in the Private Sector

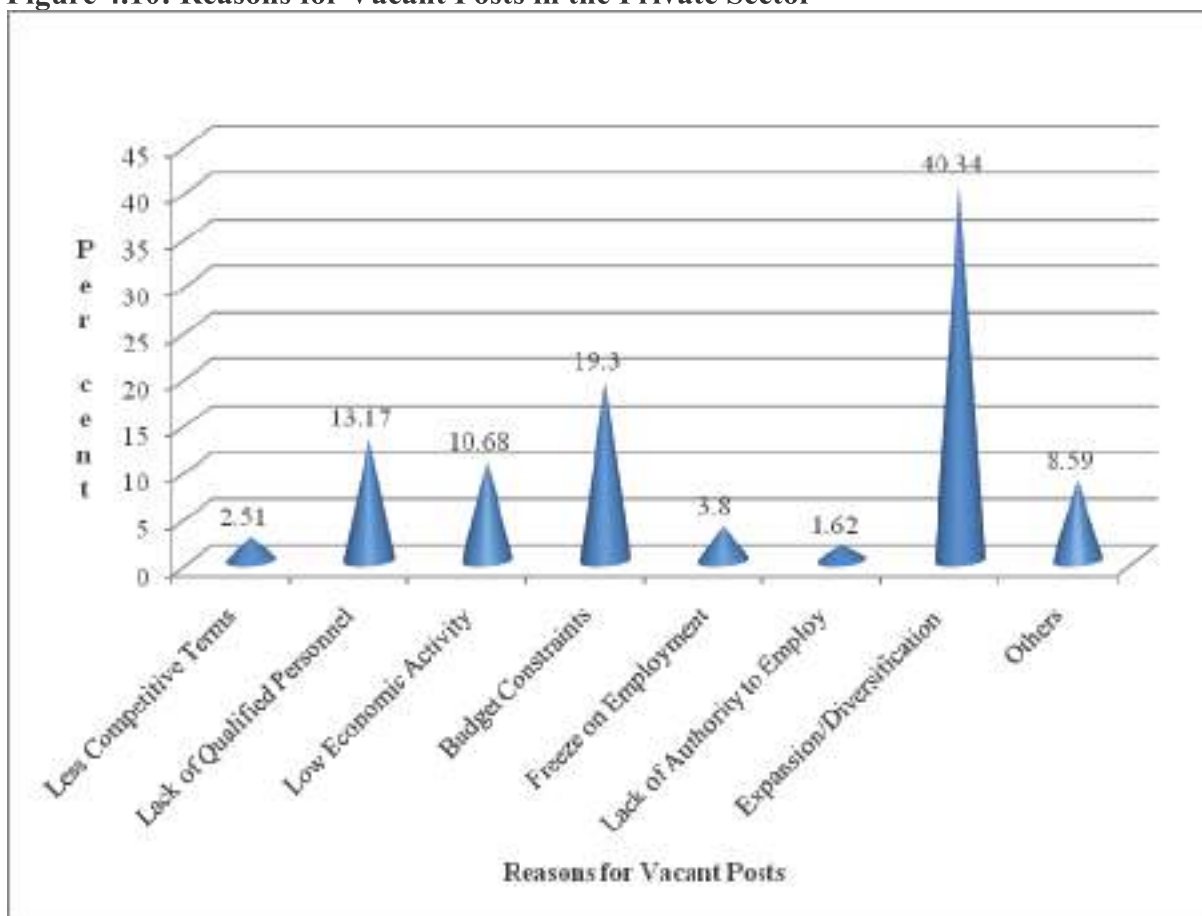
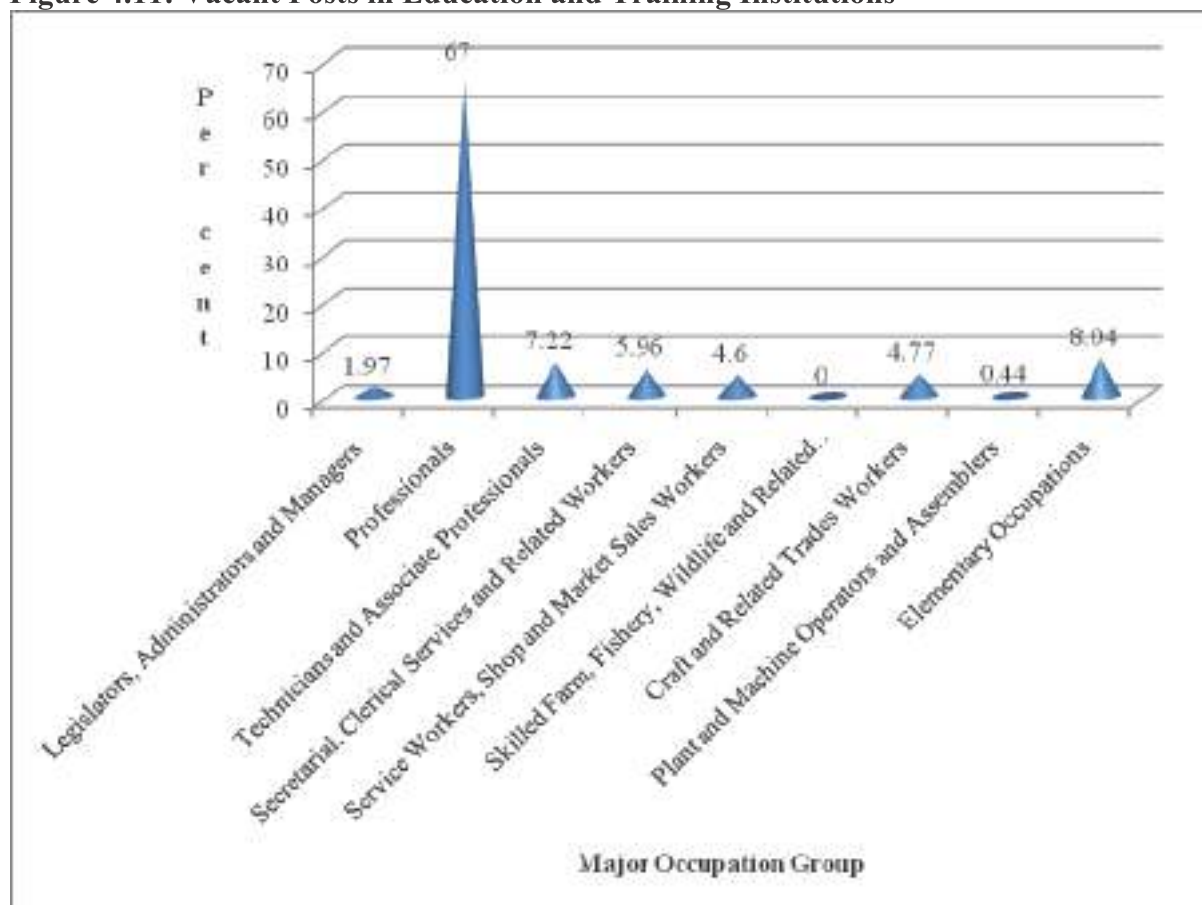


Figure 4.10 shows that the most cited reason for vacant posts in the private sector is expansion/diversification. This is followed by budget constraint and lack of qualified personnel. According to the data presented, about four in every ten (40.34%) of the vacant posts in the private sector is due to expansion. Similarly, about two in every ten (19.30%) of the vacancies is due to budget constraints while slightly more than one in every ten (13.17%) of the vacancies are explained by lack of qualified personnel. Lack of authority to employ was the least cited reason for the existence of the vacancies in the sector. This is in keeping with flexible recruitment practices in the private sector.

4.3.7 Vacant Posts in the Education and Training Institutions by Occupation

The survey data showed that there were a total of 5,237 vacant posts in the education and training institutions that responded to the survey questionnaire. Figure 4.11 gives the percentage distribution of the vacant posts across the major occupation groups.

Figure 4.11: Vacant Posts in Education and Training Institutions

As illustrated in Figure 4.11, close to seven in every ten (67%) of the vacant posts in education and training institutions were in the major occupation group of Professionals. A few of the vacant posts were in respect of Elementary Occupations (8.04%) and Technicians and Associate Professionals (7.22%). None of the vacant posts were in the area of Skilled Farm, Fishery, Wildlife and Related Workers.

Further analysis of the survey data shows that majority (56.36%) of the vacant posts reported under the major occupation group of Professionals is for University and Post-secondary Teachers/Lecturers. Other vacant posts under the major occupation group of Professionals are attributed to Secondary and Technical Institute Teachers and Instructors (36.36%), and Chemical Engineers and Technologists (2.06%). Vacant posts in the major occupation group of Technicians and Associate Professionals are mainly attributed to Business and Public Service Middle Level Personnel at 45.83 per cent. Other specific skills are those of Mechanical Engineering and Related Technicians (26.39%), and Electronics and Telecommunication Engineering Technicians (9.72%). The vacant posts in the major occupation group of Elementary Occupations is mainly attributed to Cleaners Launderers and Domestic Workers; Messengers, Porters, Watchmen and Related Workers; and Farm Hands and Related Labourers.

Figure 4.12 gives an illustration of the distribution of the vacant posts in the education and training institutions by type of institution. It shows that much of the vacant posts are in the youth polytechnics and public universities.

Figure 4.12: Vacant Posts by Type of Education and Training Institution

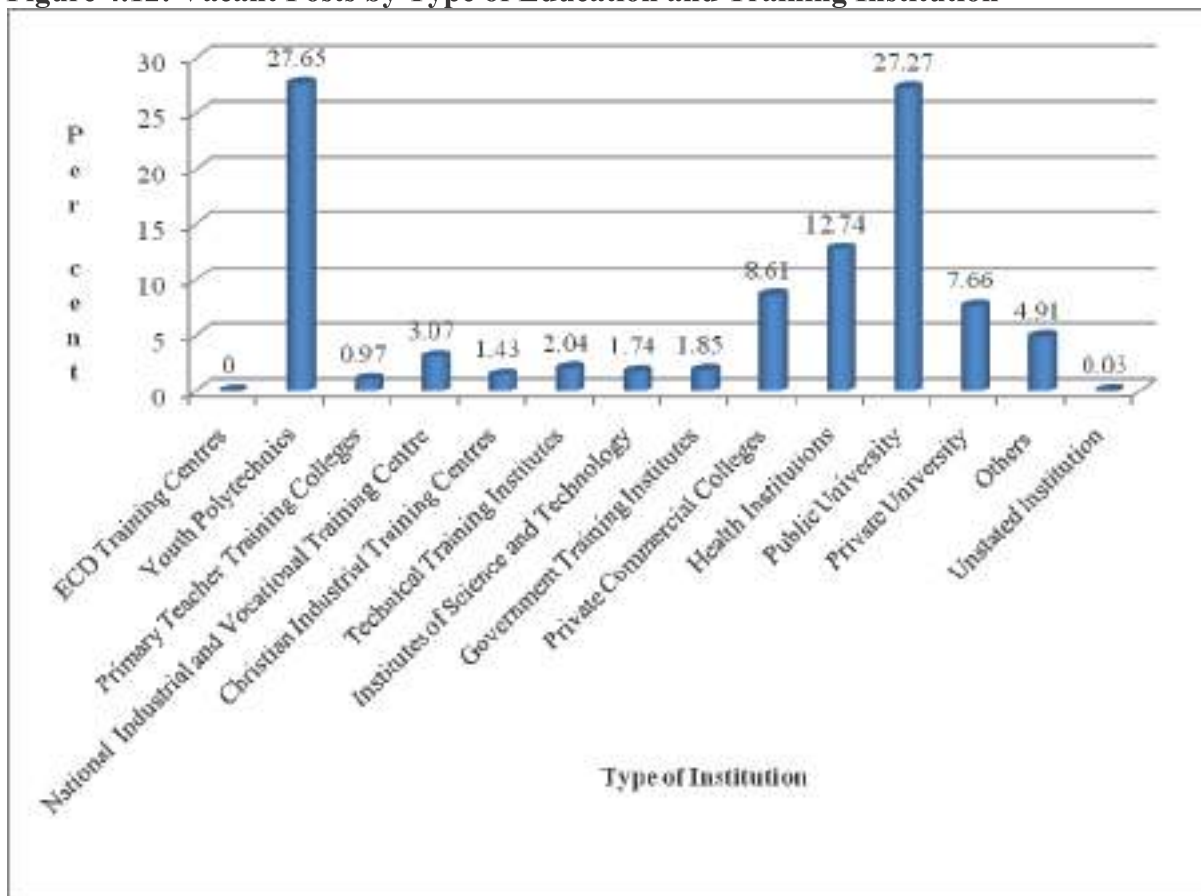


Figure 4.12 shows that much of the reported vacant posts in the education and training institutions are in the public universities. Data collated from the responses from the education and training institutions indicate that slightly more than half (54.92%) of the vacant posts in the education and training institutions were split almost equally between the youth polytechnics and public universities. Youth Polytechnics accounted for 27.65 per cent of the vacant posts while Public Universities accounted for 27.27 per cent of the vacant posts. Figure 4.12 also indicates that Health Institutions accounted for 12.74 per cent of the vacant posts. Also, while there were no vacant posts reported in the ECD Training Centres, minimal vacancies were reported in all the other types of education and training institutions. The data collected gives indications of staff shortages in almost all the institutions but with relative severity in the Universities, Youth Polytechnics and Health Institutions.

4.4. Demand for Skills

The NMS also sought to establish the demand for skills, and the projected demand. This has been analysed and discussed separately for the public, private and education and training sectors.

4.4.1 Demand for Skills in the Public Sector

The NMS data showed that as of the time of the survey, a total of 26,748 skills were demanded in the public sector of the economy. The areas of skill demands were as illustrated in Figure 4.13.

Figure 4.13: Skills Demanded in the Public Sector

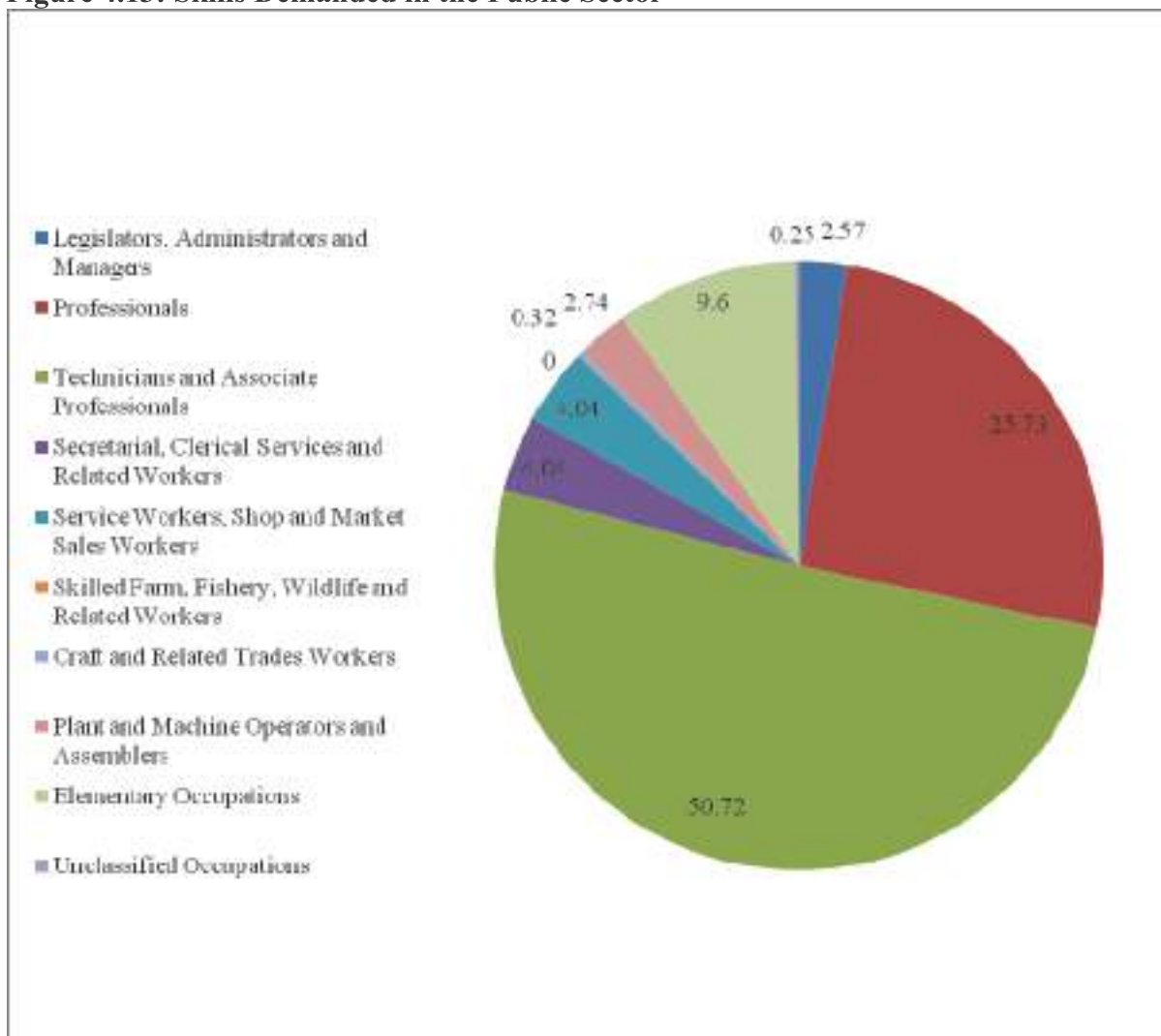


Figure 4.13 shows that the skills demanded in the public sector were mainly in the major occupation groups of Technicians and Associate Professionals (50.72%); Professionals (25.73%); and Elementary Occupations (9.60%). Skills grouped under the major occupation group of Secretarial, Clerical Services and Related Workers, and Service Workers, Shop and Market Sales Workers each explained 4.04 per cent of the skills demanded. There was no declared need for skills under the major occupation group of Skilled Farm, Fishery, Wildlife and Related Workers. The survey findings on the skills demanded by the public sector is

consistent with the patterns displayed in the vacant posts reported by the respondents from the sector.

In terms of specific skills demanded, Business and Public Service Middle Level Personnel, Lands Agricultural and Livestock Officers, and Veterinary Assistants were the main specific skills demanded under the major group of Technicians and Associate Professionals. In the major occupation group of Professionals, the demand was mainly for Agriculturalists and Related Professionals; Secondary and Technical Institute Teachers and Instructors; and Computing Professionals. The specific skills demanded under the major occupation group of Elementary Occupations were mainly for Cleaners Launderers and Domestic Workers; Other Sales and Service Labourers; and Farm Hands and Related Labourers.

4.4.2 Demand for Skills in the Public Sector by Economic Activity

Table 4.10 gives a summary of the skills demanded in the public sector by economic activities.

Table 4.10: Skills Demanded in the Public Sector by Economic Activity

Code	Economic Activity	Per cent	Number
110	Agriculture, Forestry and Fishing	0.35	93
500	Mining and Quarrying	0.07	19
1000	Manufacturing	1.41	375
4900	Transportation and Storage	1.97	527
5500	Accommodation and Food Service Activities	0.63	170
5800	Information and Communication	3.44	920
6900	Professional, Scientific and Technical Activities	0.56	151
7700	Administrative and Support Service Activities	0.81	216
8400	Public Administration and Defense; Compulsory Social Security	73.18	19,574
8500	Education	12.44	3,329
8600	Human Health and Social Work Activities	0.28	75
9400	Other Service Activities	0.04	10
9900	Activities of Extraterritorial Organizations and Bodies	2.74	734
99999	Unclassified Economic Activities	2.07	556
	Total	100	26,748

The data presented in Table 4.10 shows that the declared need for skills is mainly in Public Administration and Defence; Compulsory Social Security; Education; and Information and Communication. The three economic activities accounted for 89.06 per cent of the total skills that were reported to be demanded in the public sector.

4.4.3 Projected Demand for Skills in the Public Sector

Data obtained from the public sector institutions who responded to the survey instrument showed that the projected demand for skills by the public sector institutions increased from 307,117 in 2012 to 353,439 in 2014. Table 4.11 gives the distribution of the projected demand for skills by major occupation groups.

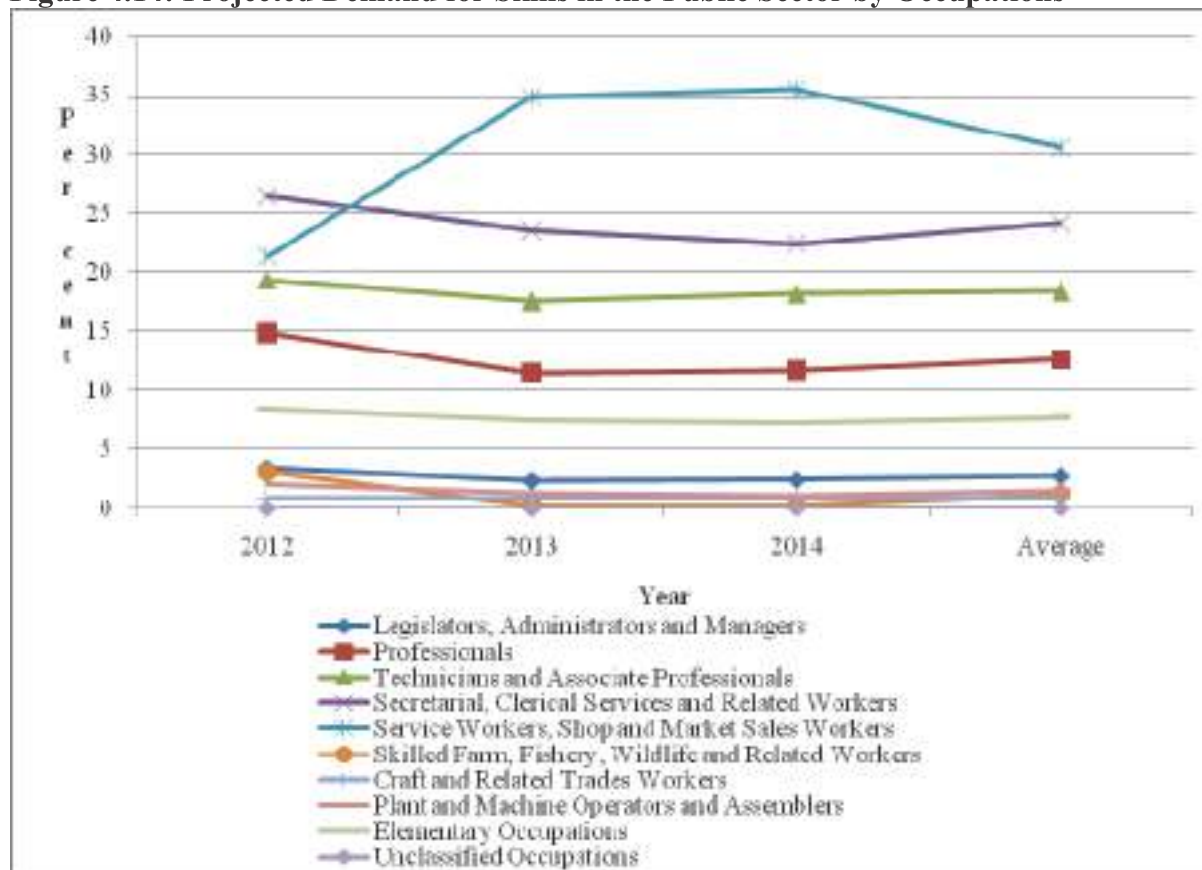
Table 4.11: Projected Demand for Skills by the Public Sector

Group	Occupation/Year	2012		2013		2014	
		No.	%	No.	%	No.	%
1	Legislators Administrators and Managers	10,557	3.44	8,113	2.36	8,584	2.43
2	Professionals	45,618	14.85	39,488	11.51	41,451	11.73
3	Technicians and Associate Professionals	59,570	19.40	60,397	17.60	64,346	18.21
4	Secretarial Clerical Services and Related Workers	81,259	26.46	80,780	23.54	79,379	22.46
5	Service Workers, Shop and Market Sales Workers	65,689	21.39	119,646	34.86	125,382	35.47
6	Skilled Farm, Fishery, Wildlife and Related Workers	9,429	3.07	1,194	0.35	1,138	0.32
7	Craft and Related Trades Workers	2,736	0.89	2,999	0.87	3,281	0.93
8	Plant and Machine Operators and Assemblers	6,243	2.03	4,542	1.32	3,893	1.10
9	Elementary Occupations	25,959	8.45	26,033	7.59	25,930	7.34
99999	Unclassified Occupations	56	0.02	19	0.01	56	0.02
	Total	307,117	100	343,210	100.00	353,439	100

Table 4.11 shows that the projected demand for skills in the public sector were mainly concentrated in the major occupation groups of Service Workers, Shop and Market Sales Workers; Secretarial, Clerical Services and Related Workers; and Technicians and Associate Professionals. The three major occupation groups each accounted for an average of 30.57, 24.15 and 18.40 per cent of the projected demand for skills in each of the three years under analysis.

According to the survey data, major occupation group of Craft and Related Trades Workers; Skilled Farm, Fishery, Wildlife and Related Workers; and Plant and Machine Operators and Assemblers accounted for the lowest proportion of the projected demand for skills. The low projected demand for skills in the three major occupation groups may be attributed to the increased outsourcing of some of the related services by the government. Overall, the projected demand for skills by the public sector was mainly based on the need to provide for expected expansion/diversification, change in technology and attrition.

Figure 4.14 gives a schematic representation of the projected demand for skills by the public sector for each of the years 2012, 2013 and 2014.

Figure 4.14: Projected Demand for Skills in the Public Sector by Occupations

The data presented in Figure 4.14 also indicates that in 2014 the projected demand for skills will mainly be in the major occupation groups of Service Workers, Shop and Market Sales Workers; Secretarial, Clerical Services and Related Workers; and Technicians and Associate Professionals.

Analysis of the survey data shows that the projected demand for skills in the major occupation group of Service Workers, Shop and Market Sales Workers will be mainly for Protective Service Workers; Cooks and Other Catering Service Workers; and House Stewards and Housekeepers. In the case of the Protective Service Workers, the specific skills with relatively high projected demand are for Prison Warders, Fire Fighters and Security Officers. In the case of Secretarial, Clerical Services and Related Workers, the specific skill with relatively high level of projected demand will be for General Office Clerks; Secretaries, Stenographers and Typists; and Numerical Clerks. Under the major occupation group of Technicians and Associate Professionals, the projected demand for skills will mainly be for Police Inspectors, Detectives, Customs and Border Officials; Lands Agricultural and Livestock Officials; and Veterinary Officials. The specific skills under the group of Police Inspectors, Detectives, Customs and Border Officials were for Immigration Officers, and Police Inspectors.

Table 4.12 provides a summary of the projected demand for skills in 2014 in the public sector by economic activity.

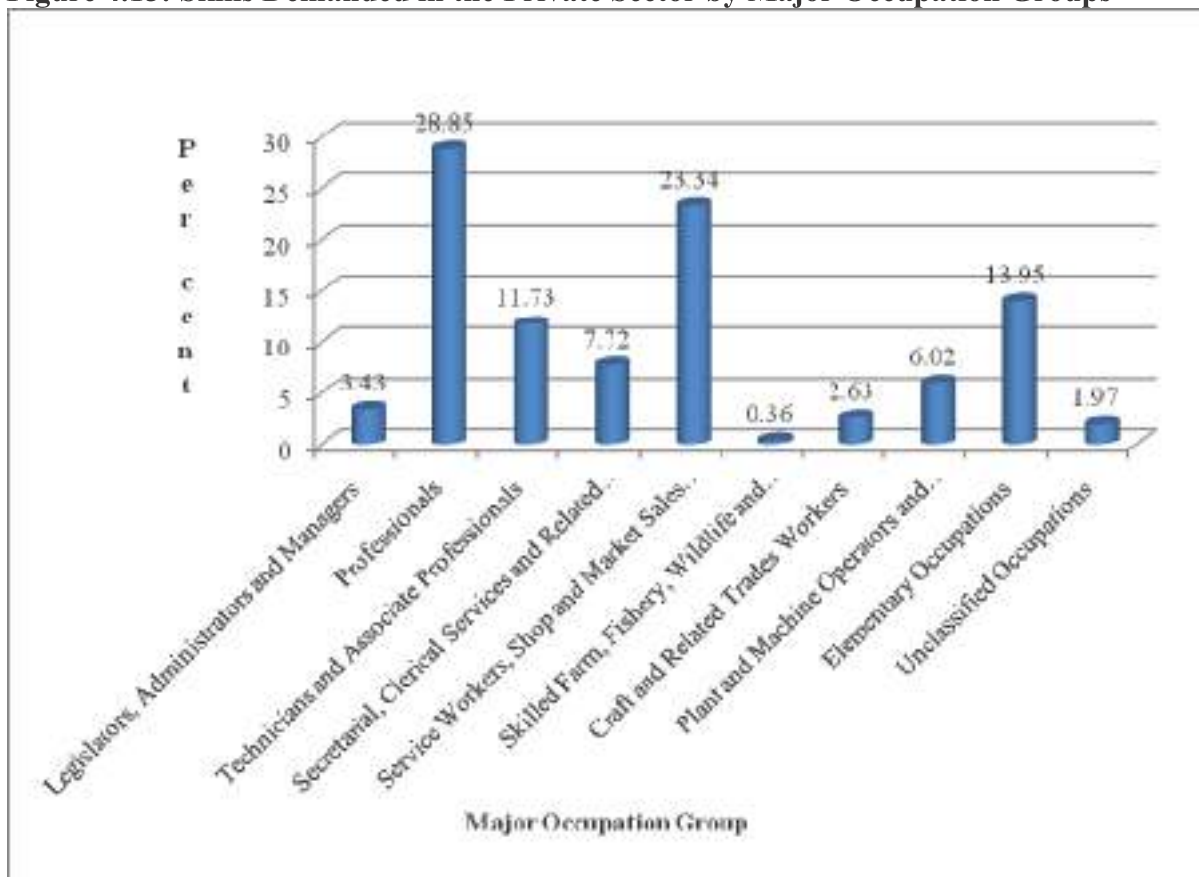
Table 4.12: Projected Demand for Skills in 2014 by Economic Activity

Code	Economic Activity	Per cent	Number
110	Agriculture, Forestry and Fishing	0.09	330
500	Mining and Quarrying	0.05	178
4500	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	0.51	1,814
4900	Transportation and Storage	6.67	23,571
5500	Accommodation and Food Service Activities	0.49	1,731
5800	Information and Communication	2.02	7,137
6900	Professional, Scientific and Technical Activities	0.13	452
7700	Administrative and Support Service Activities	0.10	338
8400	Public Administration and Defense; Compulsory Social Security	73.71	260,512
8500	Education	14.09	49,801
8600	Human Health and Social Work Activities	0.34	1,184
9000	Arts, Entertainment and Recreation	0.15	545
9400	Other Service Activities	0.04	131
99999	Unclassified Economic Activities	1.62	5,717
	Total	100	353,439

Table 4.12 shows that the projected demand for skills in 2014 by the public sector is spread in 13 economic activities but with relative concentration in one main economic activity. As shown in Table 4.12, slightly more than seven in every ten of the projected demand for skills will be in Public Administration and Defense, Compulsory Social Security. Other economic activities with relatively high levels of projected demand for skills are Education, Transport and Storage, and Information and Communication.

4.4.4 Demand for Skills in the Private Sector

The NMS data shows that an aggregate of 110,454 skills were demanded by the private sector as at the time of the survey. Much of these skills demanded were in the major occupation group of Professionals, Service Workers, Shop and Market Sales Workers, and Elementary Occupations. Figure 4.15 gives the distribution of skills demanded by the private sector by major occupation groups.

Figure 4.15: Skills Demanded in the Private Sector by Major Occupation Groups

As illustrated in Figure 4.15, close to two-thirds (66.14%) of the skills demanded in the private sector were accounted for by the three major occupation group of Professionals (28.85%), Service Workers, Shop and Market Sales Workers (23.34%), and Elementary Occupations (13.95%). The survey data also shows that Skilled Farm, Fishery, Wildlife and Related Workers accounted for the smallest proportion of the skills demanded by the private sector. This was followed by Craft and Related Trades Workers, and Legislators, Administrators and Managers. About two per cent of the skills demanded were in unclassified occupations.

Specifically, the skills under the major occupation group of Professionals that are demanded are Nursing and Mid-Wifery Professionals; Accountants, Auditors and Tax Assessors; and Secondary and Technical Institute Teachers and Instructors. The three specific skill areas accounted for 81.57 per cent of the skills demanded by the private sector under the major occupation group of Professionals. In the case of Service Workers, Shop and Market Sales Workers, the specific skills that are in high demand in relation to the other skills within the said occupation group are Protective Service Workers, Shop Assistants and Demonstrators, and Waiters and Bartenders. The three specific skills represented 31.9, 23.67 and 7.15 per cent of all the skills demanded in the major occupation group of Service Workers, Shop and Market Sales Workers. Similarly, the specific skills demanded under the major occupation group of Elementary Occupations are Other Sales and Service Labourers (42.66%), Messengers, Porters, Watchmen and Related Workers (28.88%), and Cleaners, Launderers and Domestic Workers (19.08%).

4.4.5 Demand for Skills in the Private Sector by Economic Activity

Table 4.13 gives a summary of the distribution of skills demanded by the private sector by economic activities. It illustrates that the skills demanded are distributed in the 20 main economic activities.

Table 4.13: Skills Demanded in the Private Sector by Economic Activity

Code	Economic Activity	Per cent	Number
110	Agriculture, Forestry and Fishing	3.59	3,964
500	Mining and Quarrying	0.12	133
1000	Manufacturing	8.04	8,885
3500	Electricity, Gas, Steam and Air Conditioning Supply	0.10	114
3600	Water Supply; Sewerage, Waste Management and Remediation Activities	0.06	64
4100	Construction	1.69	1,862
4500	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	12.26	13,546
4900	Transportation and Storage	3.63	4,005
5500	Accommodation and Food Service Activities	12.31	13,598
5800	Information and Communication	1.00	1,108
6400	Financial and Insurance Activities	3.76	4,148
6800	Real Estate Activities	0.24	264
6900	Professional, Scientific and Technical Activities	1.80	1,984
7700	Administrative and Support Service Activities	10.86	11,995
8400	Public Administration and Defense; Compulsory Social Security	0.57	626
8500	Education	8.33	9,200
8600	Human Health and Social Work Activities	25.75	28,441
9000	Arts, Entertainment and Recreation	0.43	475
9400	Other Service Activities	4.13	4,563
9900	Activities of Extraterritorial Organizations and Bodies	0.74	816
99999	Unclassified Economic Activities	0.60	663
	Total	100	110,454

Table 4.13 reveals that the skills are mainly demanded in the economic areas of Human Health and Social Work Activities; Accommodation and Food Service Activities; and Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles. Table 4.13 indicates that the three economic activities account for slightly more than half (50.42%) of the total skills demanded by the private sector. Water Supply, Sewerage, Waste Management and Remediation Activities present the economic activity with the lowest skill demand in the private sector. This finding is consistent given the public nature of the services provided under the economic activity in question.

4.4.6 Projected Demand for Skills in the Private Sector

Table 4.14 gives a summary of the projected demand for skills by the private sector. It shows that the projected demand for skills increased from 823,632 in 2012 to 874,646 in 2014. Based on the projections, the skills demanded were expected to grow by 6.19 per cent between 2012 and 2014.

Table 4.14: Projected Demand for Skills by the Private Sector

Group	Occupation/Year	2012		2013		2014	
		No.	%	No.	%	No.	%
1	Legislators Administrators and Managers	59,931	7.28	58,188	7.12	61,333	7.01
2	Professionals	109,424	13.29	104,133	12.75	107,148	12.25
3	Technicians and Associate Professionals	107,037	13.00	106,509	13.04	108,370	12.39
4	Secretarial Clerical Services and Related Workers	70,112	8.51	69,382	8.49	71,109	8.13
5	Service Workers, Shop and Market Sales Workers	155,944	18.93	161,668	19.79	180,786	20.67
6	Skilled Farm, Fishery, Wildlife and Related Workers	17,307	2.10	17,447	2.14	18,924	2.16
7	Craft and Related Trades Workers	44,464	5.40	44,308	5.42	45,599	5.21
8	Plant and Machine Operators and Assemblers	92,405	11.22	80,103	9.81	83,357	9.53
9	Elementary Occupations	145,195	17.63	148,436	18.17	167,540	19.16
99999	Unclassified Occupations	21,813	2.65	26,733	3.27	30,480	3.48
	Total	823,632	100	816,907	100	874,646	100

Table 4.14 shows that the projected demand for skills in the major occupation group of Service Workers, Shop and Market Sales Workers, and Elementary Occupations were expected to be consistently higher than that of other major occupation groups in 2012 to 2014. According to the data presented, the projected demand for skills in the major occupation group of Service Workers, Shop and Market Sales Workers was expected to average 19.80 per cent of the sector's annual projected demand for skills. This was compared to 18.32 per cent for the Elementary Occupations. Skills categorized under the major occupation group of Professionals had the third largest projected demand for skills in 2012. However, such demand projection diminished in 2013 and were surpassed by that of Technicians and Associate Professionals. In all the cases, the projected demand for skills in the sector was rationalized mainly on grounds of anticipated expansion/diversification, change in technology and attrition.

Figure 4.16 gives a schematic representation of the shares of the projected demand for skills in the private sector by occupations over the period 2012 to 2014.

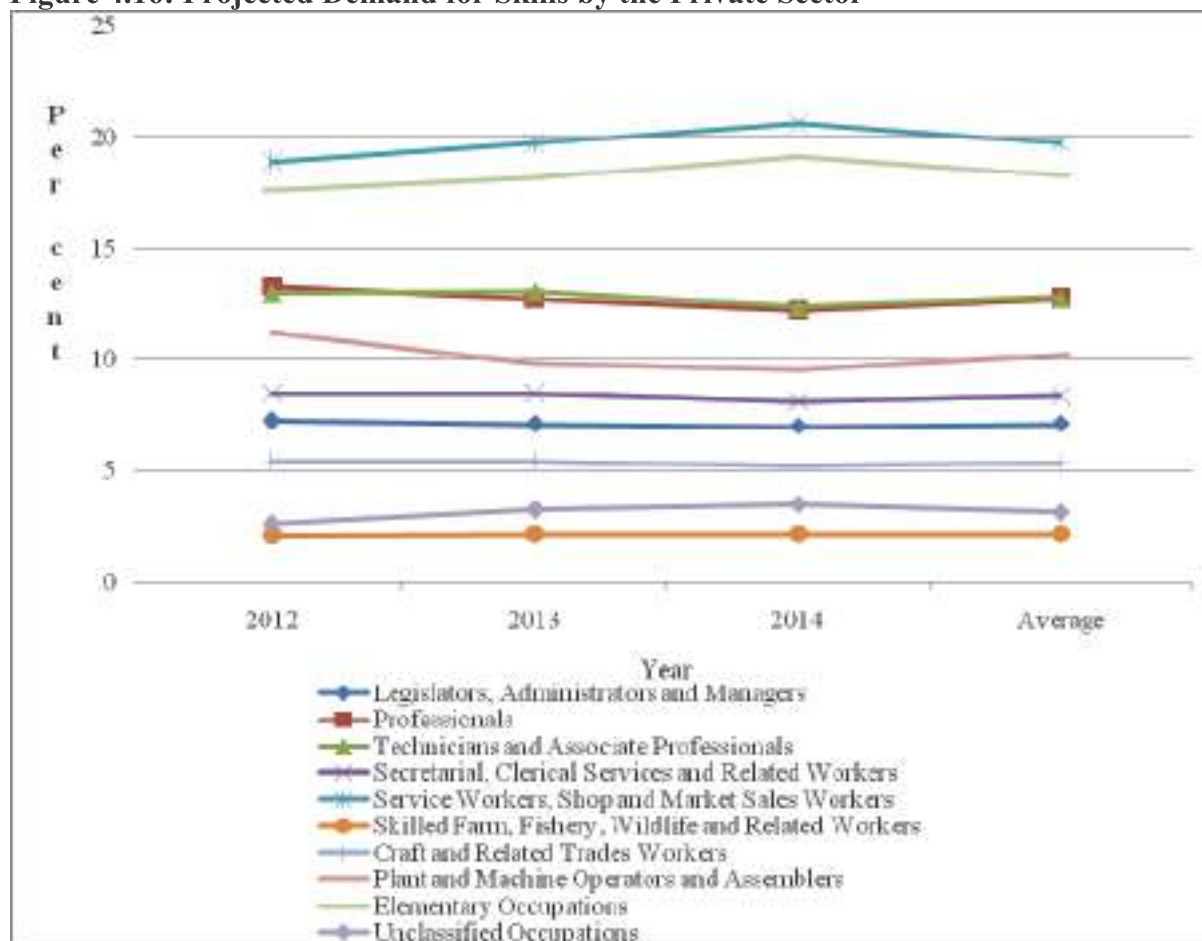
Figure 4.16: Projected Demand for Skills by the Private Sector

Figure 4.16 shows that shares of the projected demand for skills by each of the major occupation groups were envisaged by the private sector employers to remain almost constant over the period 2012 to 2014. The anticipation for constant growth in demand for skills may be attributed to inability of the respondents to make long term forecasts. It could also be attributed to expectation of a constant growth path in 2013 and 2014.

Further analysis of the survey data indicates that the demand for skills in the private sector was projected to be mainly in the major occupation group of Service Workers, Shop and Market Sales Workers; Elementary Occupations; and Technicians and Associate Professionals. According to the data presented, Protective Service Workers, Shop Assistants and Demonstrators, and Cooks and Other Catering Service Workers are some of the main specific skills that will be required under the major occupation group of Service Workers, Shop and Market Sales Workers. The three specific skills account for 34.58, 24.14 and 21.15 of the 180,786 projected demand for skills in the major occupation group of Service Workers, Shop and Market Sales Workers, respectively.

Similarly, in the case of Elementary Occupations, projected demand for skills will mainly be for Farm Hands and Related Labourers, Other Sales and Service Labourers, and Cleaners, Launderers and Domestic Workers. The three specific skills jointly account for more than two-thirds of the 167,540 projected demand for skills in the group of Elementary Occupations. Also, Primary Education Teachers, Business Service Agents, and Business and Public Service

Middle Level Personnel will be the main skill areas in the major group of Technicians and Associate Professionals to be demanded in 2014. These three specific skills accounted for slightly less than two-thirds (66.46%) of the 108,370 projected demand for Technicians and Associate Professionals.

Table 4.15 summarizes the projected demand for skills by the private sector in 2014 by economic activity.

Table 4.15: Projected Demand for Skills by Economic Activity

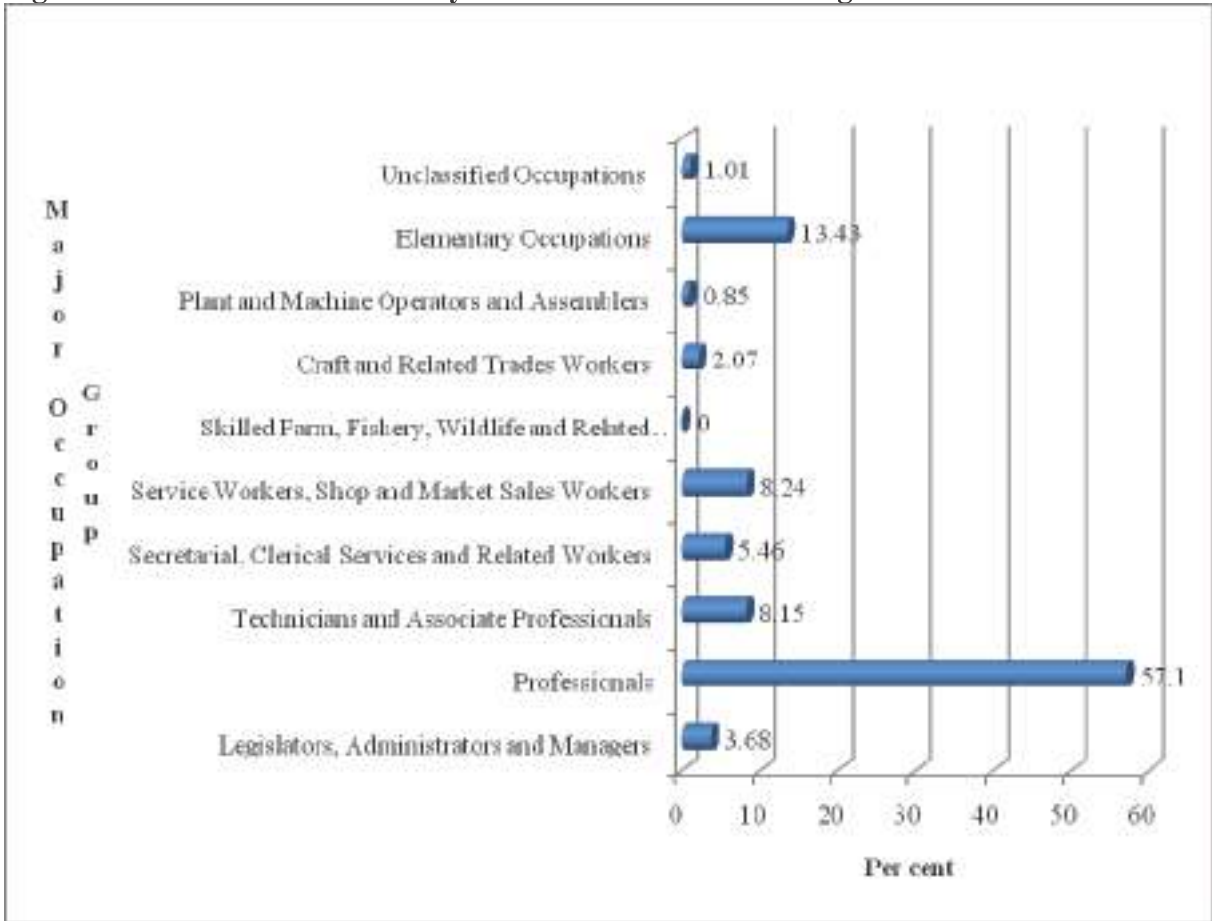
Code	Economic Activity	Per cent	Number
110	Agriculture, Forestry and Fishing	10.29	90,044
500	Mining and Quarrying	0.56	4,860
1000	Manufacturing	13.17	115,171
3500	Electricity, Gas, Steam and Air Conditioning Supply	0.05	396
3600	Water Supply; Sewerage, Waste Management and Remediation Activities	0.03	253
4100	Construction	3.22	28,148
4500	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	15.30	133,781
4900	Transportation and Storage	4.80	41,983
5500	Accommodation and Food Service Activities	7.33	64,139
5800	Information and Communication	1.74	15,217
6400	Financial and Insurance Activities	5.02	43,935
6800	Real Estate Activities	0.29	2,499
6900	Professional, Scientific and Technical Activities	1.51	13,209
7700	Administrative and Support Service Activities	6.72	58,770
8400	Public Administration and Defense; Compulsory Social Security	0.40	3,528
8500	Education	10.85	94,911
8600	Human Health and Social Work Activities	10.99	96,151
9000	Arts, Entertainment and Recreation	0.63	5,533
9400	Other Service Activities	5.91	51,704
9900	Activities of Extraterritorial Organizations and Bodies	0.38	3,349
99999	Unclassified	0.81	7,065
	Total	100	874,646

Table 4.15 shows some level of projected demand for skills will be felt in at least each of the main economic activities in 2014. According to the data presented, Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles will account for 15.3 per cent of the projected demand for skills in 2014. Other projected demand for skills will be accounted for by Manufacturing (13.17%) and Human Health and Social Work Activities (10.99%). Economic activities with the lowest proportions of the projected demand for skills in 2014 are Water Supply, Sewerage, Waste Management and Remediation Activities (0.03%); Electricity, Gas, Steam and Air Conditioning Supply (0.05%); and Activities of Extraterritorial Organizations and Bodies (0.38%).

4.4.7 Demand for Skills in the Education and Training Institutions

Figure 4.17 gives an illustration of the demand for skills by the education and training institutions. Based on data provided by the education and training institutions that responded to the survey instrument, most of the skills demanded by the sector are in the major group of Professionals. This major occupation group accounted for about six in every ten (57.1%) of the skills demanded.

Figure 4.17: Demand for Skills by the Education and Training Institutions



As illustrated in Figure 4.17, other skills with relatively high levels of demand are those in the group of Elementary Occupations, Service Workers, Shop and Market Sales Workers, and Technicians and Associate Professionals. Skills in the major group of Plant and Machine Operators and Assemblers, and Craft and Related Trades Workers accounted for the lowest proportion of the skills demanded at 0.85 and 2.07 per cent, respectively. The data provided also show that there was no declared demand for skills under the major occupation group of Skilled Farm, Fishery, Wildlife and Related Workers.

The survey data shows that majority of the specific skills in the major occupation group of Professionals that are demanded by the education and training institutions are University and Post-secondary Teachers/Lecturers, Secondary and Technical Institute Teachers and Instructors, and Accountants, Auditors and Tax Assessors. In this respect, the University and Post-secondary Teachers/Lecturers accounted for 56.14 per cent of the total skills demanded under the major occupation group of Professionals. Secondary and Technical Institute

Teachers and Instructors constituted 36.67 per cent of the skills demanded by the sector under the said major occupation group.

In the major occupation group of Technicians and Associate Professionals, the main skill demand area is for Mechanical Engineering and Related Technicians (57.78%), Business and Public Service Middle Level Personnel (24.44%), and Electronics and Telecommunication Engineering Technicians (7.78%). In the major occupation group of Service Workers, Shop and Market Sales Workers the main skill demand areas are for Cooks and Other Catering Service Workers (55.17%), Protective Service Workers (27.59%) and House Stewards and House Keepers (12.07%).

4.4.8 Demand for Skills in Education and Training Sector by Type of Institution

Figure 4.18 gives an illustration of the demand for skills in education and training institutions by type of institution. It shows that the greatest demand for skills emanates from the public universities, private commercial colleges, private universities, youth polytechnics and technical training institutes. According to the data provided, these institutions account for 77.1 per cent of the total skills demanded.

Figure 4.18: Demand for Skills in Education and Training Institutions by Type of Institution

The relatively high shares of the total skills demanded by the universities, private commercial colleges, technical training institutes and youth polytechnics is consistent with the ongoing education reforms. The public and private universities have grown over time in terms of their numbers, student population, scope of programmes and geographical coverage. The rapid expansion has created high demand for skills by the universities. Further, the government target during the 2008-2012 MTP period was to rehabilitate and modernize the youth polytechnics and establish youth empowerment centres in all constituencies. This, together with increased enrolment in youth polytechnics could explain the high demand for skills in these institutions. Further, the government has also embarked on expansion and modernization of technical training institutes as a major component of Technical, Vocational Education and Training (TVET). The private commercial colleges have also expanded with some getting accreditation to offer degree programmes in collaboration with local and international universities. These could explain the observed high demand for skills in these institutions.

4.4.9 Projected Demand for Skills in Education and Training Sector

Data collected from the education and training institutions that responded to the survey questionnaire showed that the demand for skills by the institutions was projected to grow from 37,720 in 2012 to 41,932 by 2014. In this context, the education and training institutions excluded secondary and primary schools. Table 4.16 gives a summary of the projected demand for skills by the education and training institutions over the period 2012 to 2013.

Table 4.16: Projected Demand for Skills by Education and Training Institutions

Major Group	Major Occupation Groups	2012		2013		2014	
		No.	%	No.	%	No.	%
1	Legislators Administrators and Managers	2,538	6.73	2,550	6.57	2,575	6.14
2	Professionals	18,059	47.88	18,901	48.73	21,283	50.76
3	Technicians and Associate professionals	3,994	10.59	3,988	10.28	4,234	10.10
4	Secretarial Clerical Services and Related Workers	2,853	7.56	3,074	7.93	3,313	7.90
5	Service Workers, Shop and Market Sales Workers	3,881	10.29	3,733	9.62	3,995	9.53
6	Skilled Farm, Fishery, Wildlife and Related Workers	143	0.38	153	0.39	199	0.47
7	Craft and Related Trades Workers	758	2.01	750	1.93	809	1.93
8	Plant and Machine Operators and Assemblers	591	1.57	622	1.60	629	1.50
9	Elementary Occupations	4,815	12.77	5,015	12.93	4,895	11.67
99999	Unclassified occupations	88	0.23	0	0.00	0	0.00
	Total	37,720	100.00	38,786	100.00	41,932	100.00

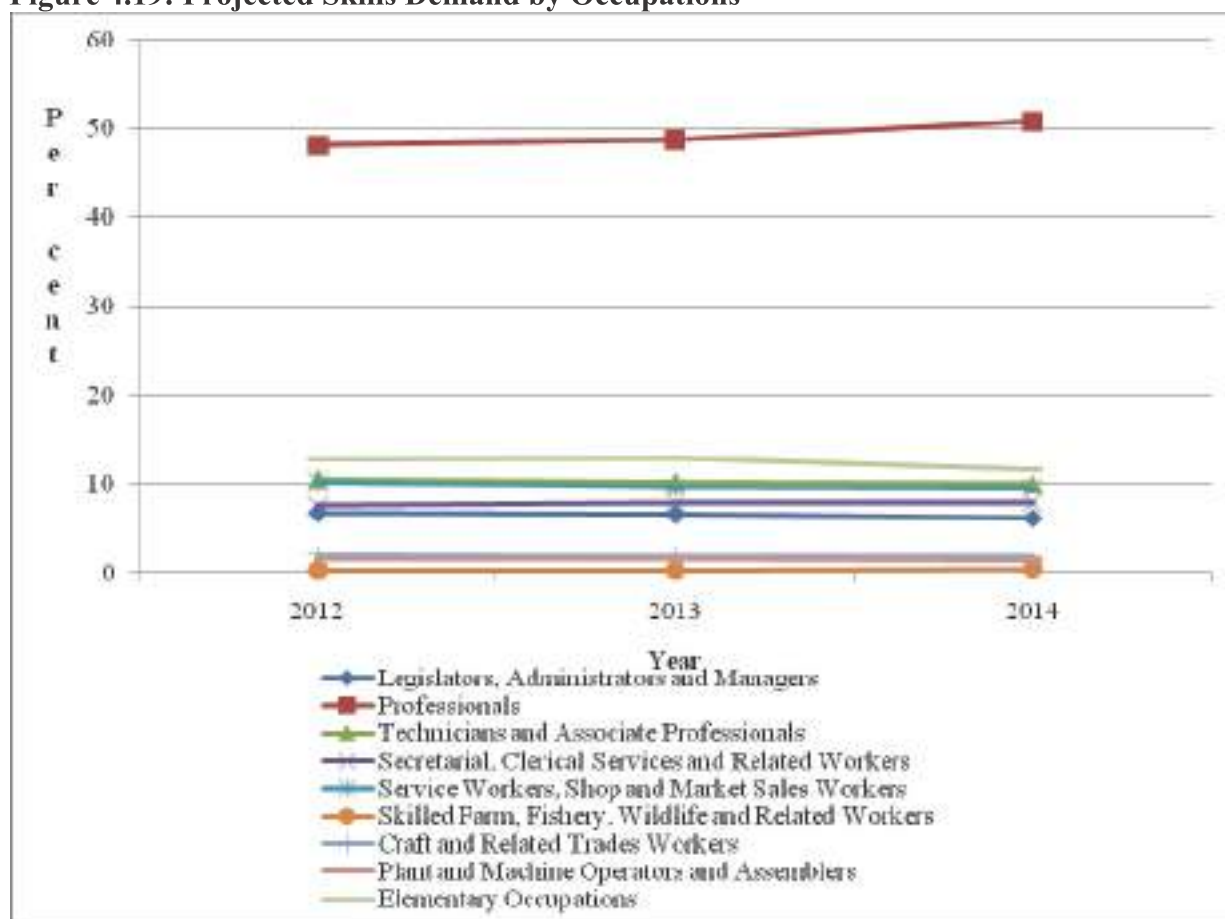
Table 4.16 shows that as of the time of the survey, it was envisaged that the projected demand for skills in the education and training sector would mainly be in the major occupation group of Professionals. Other major occupation groups that presented relatively high levels of

projected demand for skills were Elementary Occupations, Technicians and Associate Professionals, Service Workers Shop and Market Sales Workers, and Secretarial, Clerical Services and Related Workers.

According to the survey data, the projected demand for Professionals was expected to average 49.20 per cent over the 2012-2014 period. This is compared to Elementary Occupations (12.46%), Technicians and Associate Professionals (10.32%); Service Workers, Shop and Market Sales Workers (9.81%); and Secretarial, Clerical Services and Related Workers (7.80%). Clearly, the skills that were projected to witness the lowest demand in the education and training sector over the period 2012 to 2014 are Craft and Related Trades Workers (1.96%); Plant and Machine Operators and Assemblers (1.56%); and Skilled Farm, Fishery, Wildlife and Related Workers (0.41%). Overall, the main reasons given for the skill demand projections were anticipated expansion and/or diversification, change in technology and replacement occasioned by the various forms of attrition.

Figure 4.19 gives a comparative analysis of the reported projected demand for skills by the education and training institutions over the period 2012-2014.

Figure 4.19: Projected Skills Demand by Occupations



In terms of specific skills, the projected demand for skill in 2014 for Professionals is mainly in respect to University and Post-secondary Teachers/Lecturers, Secondary and Technical

Institute Teachers and Instructors, and Chemical Engineers and Technologists. According to the data presented, the three specific skills constituted 51.48, 32.35 and 4.35 per cent of the projected demand for Professionals in 2014, respectively.

Similarly, in 2014, the projected demand for skills in the major occupation group of Elementary Occupations would mainly be for Cleaners Launderers and Domestic Workers; Messengers, Porters, Watchmen and Related Workers; and Farm Hands and Related Labourers. In the case of the major occupation group of Technicians and Associate Professionals, the skills with relatively high levels of projected demand are those of Business and Public Service Middle Level Personnel, Electronics and Telecommunication Engineering Technicians, and the Mechanical Engineering and Related Technicians. These specific skills respectively accounted for 29.32, 21.93 and 17.20 per cent of the projected demand for Technicians and Associate Professionals in 2014.

Table 4.17 gives a comparative analysis of the projected demand for skills in the education and training institutions by the type of institution. Data provided by the education and training institutions shows that much of the projected demand for skills is attributed to public universities, youth polytechnics and private commercial colleges.

Table 4.17: Projected Demand for Skills by Type of Education and Training Institution

Type of Institution/Year	2012		2013		2014	
	No.	%	No.	%	No.	%
ECD Training Centre	1,100	2.92	902	2.33	902	2.15
Youth Polytechnics	7,214	19.13	7,210	18.59	7,821	18.65
Primary Teacher Training Colleges	919	2.44	847	2.18	960	2.29
National Industrial and Vocational and Training Centres	591	1.57	654	1.69	727	1.73
Christian Industrial Training Centres	1,616	4.28	1,954	5.04	2,180	5.20
Technical Training Institutes	4,624	12.26	5,599	14.44	6,042	14.41
Institutes of Science and Technology	1,652	4.38	1,841	4.75	2,093	4.99
Government Training Institutes	1,390	3.69	894	2.30	905	2.16
Private Commercial Colleges	5,374	14.25	5,675	14.63	6,426	15.32
Health institutions	1,659	4.40	1,705	4.40	1,728	4.12
Public University	7,683	20.37	8,138	20.98	8,325	19.85
Private University	2,126	5.64	2,374	6.12	2,771	6.61
Others	936	2.48	927	2.39	966	2.30
Unstated Institution	836	2.22	66	0.17	86	0.21
Total	37,720	100.00	38,786	100.00	41,932	100.00

It can be deduced from Table 4.17 that the projected demand for skills by the public universities, on average, constituted 20.4 per cent of the total annual projected demand for

Foreword

Manpower surveys are key inputs for providing baseline information required for formulating and implementing effective active labour market policies. The surveys provide data on skills inventory in terms of stock, types and distribution of the skills within the economy. They also provide information on the skills demanded by industry, vacancies, skill shortages and surpluses. On the supply side, the surveys provide information on the capacity of the education and training institutions, their intake and outturn.

The Kenya National Manpower Survey was conducted in 2010/2011 in line with the agreement by the five East African Community partner states on the need to undertake national skill inventories. A pilot survey was undertaken in June/July 2010 while the main survey was conducted between May and August 2011. The objectives of the 2010/2011 National Manpower Survey were to take inventory, characteristics and distribution of skilled manpower within the different sectors of the economy; take inventory, stock and characteristics of skilled manpower in the diaspora; establish the number of vacancies and demand; and determine manpower shortages and future requirements. Other objectives were to establish the capacity of local training institutions, identify the intake and outturn of training institutions, and provide information for updating the Kenya National Occupational Classification Standards (KNOCS).

Five modules were administered during the survey. These were the Employer, Employee, Education and Training, Informal Sector and Diaspora modules. The survey targeted respondents from both private and public sectors of the economy. It targeted to conduct a census in the public sector; and draw an appropriate sample from the private sector, education and training institutions and the informal sector. A total of 443,625 public sector employees drawn from 320 public sector institutions responded to the survey questionnaire. A grossed up number of 1,335,040 private sector employees from 43,236 establishments also participated in the survey. Additionally, a grossed up number of 1,985 public and private education and training institutions responded to the survey questionnaire.

The survey finds that Kenya has stock of skills in all the nine major occupational groups as per the Occupational Classification Standard, albeit with differences in magnitude. It also indicates existence of male-female imbalances in employment with marked occupational segregation in respect of sex. The dominant occupational category in the public sector is that of Technicians and Associate Professionals; Service Workers, Shop and Market Sales Workers; and Professionals. Skilled Farm, Fishery, Wildlife and Related Workers is the least dominant category. The public sector also presents a skewed skill mix in favour of professionals and technicians while in the private sector the skill ratio between managerial, technical and support staff is almost equal.

County-specific skill distribution showed that Nairobi, Nakuru and Kiambu counties had the highest depository of public sector skills while Lamu, Samburu and Nyamira counties had the lowest. In the case of the private sector, Nairobi county had the highest number of private sector employees estimated at 39.80 per cent of the total. Nakuru county ranked second at 9.18 per cent of the total with Mombasa county being third at 9.07 per cent of the total. Wajir, Tana River and Mandera had the lowest number of private sector employees, accounting for an average of 0.02 per cent of the private sector employees surveyed. Majority of private sector employees in Nairobi county were Professionals followed by Technicians and