FEDERAL REPUBLIC OF NIGERIA

NATIONAL UNIVERSITIES COMMISSION

LABOUR MARKET OBSERVATORY REPORT

2012

TABLE OF CONTENTS

Page

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ACRONYMS AND THEIR MEANINGS

1. AMW   Average Monthly Wages

2. BA   Bachelor of Arts

3. BC   British Council

4. BSc   Bachelor of Science

5. CBN   Central Bank of Nigeria

6. CEMAC   *Communauté Economique et Monètaire de l'Afrique Centrale*

7. CIB   Chartered Institute of Bankers

8. CMD   Center for Management Development

9. CMS   Content Management System

10. COLMIS   Computerised Labour Market Information System

11. COREN   Council for the Regulation of Engineering

12. DES   Deputy Executive Secretary

13. EAI   Educational Attainment and Illiteracy

14. EbO   Employment by Organization

15. EbS   Employment by Sector

16. ECOWAS   Economic Community of West African States

17. EIE   Employment in Informal Economy

18.	EPR	Employment to Population Ratio
19.	ES	Executive Secretary
20.	FGN	Federal Government of Nigeria
21.	FIIRO	Federal Institute of Industrial Research
22.	FMCI	Federal Ministry of Commerce and Industry
23.	FME	Federal Ministry of Education
24.	FMLP	Federal Ministry of Labour and Productivity
25.	FMST	Federal Ministry of Science and Technology
26.	GDP	Gross Domestic Product
27.	HCC	Hourly Compensation Costs
28.	HND	Higher National Diploma
29.	HR	Human Resource
30.	ICT	Information and Communication Technology
31.	ILO	International Labour Organisation
32.	IR	Inactivity Rate
33.	ISCO	International Standard Classification of Occupations
34.	ITF	Industrial Training Fund
35.	ITN	Identification of Training Needs
36.	KILM	Key Indicators of the Labour Market
37.	LAN	Local Area Network
38.	LFPR	Labour Force Participation Rate

39.	LM	Labour Market
40.	LMI	Labour Market Information
41.	LMIS	Labour Market Information System
42.	LMOP	Labour Market Observatory Project
43.	LMOU	Labour Market Observatory Unit
44.	LP	Labour Productivity
45.	LTE	Long Term Employment
46.	MAN	Manufacturers Association of Nigeria
47.	MDG	Millennium Development Goals
48.	MINILS	Michael Imoudu National Institute for Labour Studies
49.	MOI	Ministry of Interior
50.	NACCIMA	Nigeria Association of Chambers of Commerce, Industry, Mines & Agriculture
51.	NAPEP	National Poverty Eradication Programme
52.	NASSI	National Association of Small Scale Industrialists
53.	NBS	National Bureau of Statistics
54.	NBTE	National Board for Technical Education
55.	NCCE	National Commission for Colleges of Education
56.	NCE	National Certificate of Education
57.	ND	National Diploma
58.	NDE	National Directorate of Employment

59.	NECA	Nigeria Employers Consultative Association
60.	NEPAD	New Partnership for Africa's Development
61.	NERDC	Nigerian Educational Research & Development Council
62.	NES	Nigerian Economic Society
63.	NIEPA	National Institute of Planning and Administration
64.	NIMC	National Identity Management Commission
65.	NIRA	Nigeria Industrial Relations Association
66.	NISER	Nigeria Institute for Social and Economic Research
67.	NLC	Nigeria Labour Congress
68.	NMB	National Manpower Board
69.	NNC for UNESCO	Nigerian National Commission for UNESCO
70.	NPC	National Planning Commission
71.	NPC	National Productivity Center
72.	NSC	National Steering Committee
73.	NSE	Nigeria Stock Exchange
74.	NTC	National Technical Committee
75.	NUC	National Universities Commission
76.	NYSC	National Youth Service Corp
77.	PG	Post Graduate

78.	PHP	PHP Hypertext Preprocessor (or Personal Home Page)
79.	SADC	Southern African Development Community
80.	SIE	Status in Employment
81.	SMEDAN	Small and Medium Enterprises Development Agency of Nigeria
82.	SQL	Structured English Query Language
83.	STEP-B	Science and Technology Education at the Post-Basic
84.	TETFund	Tertiary Education Trust Fund
85.	TRU	Time Related Unemployment
86.	TUC	Trade Union Congress
87.	TVET	Technical and vocational Education and Training
88.	UNDP	United Nations Development Programme
89.	UNESCO	United Nations Educational, Scientific, and Cultural Organization
90.	UNIDO	United Nations Industrial Development Organization
91.	UR	Unemployment Rate
92.	WAEMU	West African Economic and Monetary Union
93.	WB	World Bank
94.	YU	Youth Unemployment

Executive Summary

Preamble

The National Universities Commission (NUC), in order to support the establishment of a Labour Market Observatory (LMO) for Nigeria, sought and obtained funding from the Federal Government of Nigeria's STEP-B Project, a loan facility that the latter secured from the World Bank for competitive intervention projects in the education sector. The NUC articulated its case for a Labour Market Observatory Project (LMOP) in a concept document that provided details on the objectives of, benefit from and implementation strategy for such an observatory. The aim was to establish an LMO that would be domiciled at a suitable public organization, to function as the secretariat for a National Labour Market Information System (LMIS) for purposes of collecting, collating, analyzing, archiving and, on demand, disseminating labour market information (LMI) for use by individuals and organizations in policy development and planning for national development. The Project commenced in September 2011 following approval of a sum of $500,000.00 earlier that year.

Implementation

For the purpose of implementing the Project, the NUC carried out the following activities:

❖ Appointed two consultants; a Lead Consultant to provide project management services and a Technical Consultant to offer technical services on the Project;

❖ Developed a work plan for the Project whose timelines were subsequently revised severally to accommodate unanticipated delays;

❖ Established a Labour Market Observatory Unit at the Executive Secretary's Office;

❖ Put in place a governance structure whereby a National Steering Committee provided policy guidance; a National Technical Committee provided technical advice on LMIS issues; the National Universities

Commission, through its LMOP Committee and its LMO Unit, implemented the Project and kick started the LMIS;

- ❖ Developed a network of LMI stakeholders for the project and for the Nigeria LMIS: chief executive officers of such stakeholder organisations were appointed members of the National Steering Committee and LMI desk officers from these organisations were nominated as members of the National Technical Committee;
- ❖ Convened an LMOP Sensitization Workshop to sensitize stakeholder CEOs and desk officers as well as the public on the Project and on LMIS;
- ❖ Held a Training Workshop for capacity building for LMI desk officers on techniques for handling labour market data and information;
- ❖ Conducted a pilot survey on LMI from the Nigerian manufacturing sector utilizing an instrument developed by the Project;
- ❖ Conducted a survey to determine the needs of desk officers for training on the techniques for handling LMI data toward participation in LMIS; the survey also determined the needs of stakeholder organisations for LMI;
- ❖ Put together a comprehensive project report; and
- ❖ Scheduled a Dissemination Workshop at the end of the Project to popularize, publicize and disseminate the report on the first survey for LMI by the Labour Market Observatory under the LMOP.

Achievements

The LMOP has, in the course of its implementation, accomplished the following:

- ❖ Established a Labour Market Observatory at the National Universities Commission;
- ❖ Established a National Labour Market Information System with LMI stakeholder organisations as part of the network and the LMO as the secretariat;
- ❖ Established a National Steering Committee on LMIS to provide policy guidance;

❖ Established a National Technical Committee on LMIS to provide technical advice;

❖ Caused NUC to create and man a Labour Market Observatory Unit at its secretariat in Abuja;

❖ Carried out successful advocacy and mobilized support among stakeholder organisations for the LMIS;

❖ Conducted a stakeholder sensitization workshop and created awareness of the LMOP and LMIS among stakeholders and the public;

❖ Conducted a training workshop to impart in LMI desk officers in stakeholder organisations, the skills they needed to deal with LMI data;

❖ Successfully conducted a pilot survey whereby it collected and processed LMI from the Nigerian manufacturing sector;

❖ Procured and installed COLMIS, a proprietary computerized labour market information software, which was customized with specific capability to capture, analyse and report the set of LMI data decided for Nigeria;

❖ Successfully utilized COLMIS to store, retrieve and analyze LMI data obtained from the manufacturing sector in the LMOP pilot survey; the software was also utilized to generate tabular and graphic reports which are presented in the main body of this report.

Postscript & Recommendations

It is clear from the foregoing therefore that the LMOP has roundly accomplished its set objectives. Although the Labour Market Observatory Project is on the verge of closing business, the LMIS will continue to be managed by the Commission at its LMO Unit. The Project therefore recommends that the National Universities Commission further train members of the LMO Unit. The Commission and the Federal Government should also put in place the necessary mechanism for adequate, regular and sustained funding and policy support for the LMO Unit and the Nigeria LMIS. Coverage of LMI surveys should be gradually expanded to include all sectors of the Nigerian economy.

1. INTRODUCTION

1.1   Project Background

12.1.1   Labour market information in Africa

Many economies in Africa are not able to attain sufficient economic growth in the real sector to absorb the ever-increasing manpower production from higher education institutions. Consequently, a large proportion of the labour force is engaged in such low-productivity and low-earning activities as traditional agriculture and informal enterprises. It is clear therefore that the existing south-south initiatives for regional cooperation such as the Economic Community of West African States (ECOWAS), the West African Economic and Monetary Union (WAEMU), the *Communauté Economique et Monètaire de l'Afrique Centrale* (CEMAC) and the Southern African Development Community (SADC), aimed in part at improving human development, have not been very effective in this regard. Although the promotion of an export-oriented manufacturing industry as well as the introduction of new technologies, new systems of production and novel labour organization strategies associated with globalization have had positive influence on the labour market in most African countries, growth in trade and investment flows in these countries is varied. This situation calls for careful national planning in all sectors (including human resource development) based on reliable data and information on their human resource and other labour-related indices. In spite of such realization, most African nations float public policies for poverty alleviation without reference to the national labour market situation which is best appreciated and understood through collection, processing and analysis of the relevant labour market information (LMI).

Consequent upon the lack of LMI, national education systems on the African continent often fail to address skills demands of the workplace and thereby shortchange their clientele who invest time and other

resources in skills that do not offer them optimal advantage on the labour market. Industry has therefore often had to engage in costly extended training of fresh graduate employees to bring them up to speed with the skill levels required for effective performance. This situation creates inefficiencies in industry and adversely affects global competitiveness. It also necessitates utilization of expatriate labour and thereby promotes capital flight.

Nigeria is not an exception in this regard. The lack of regular studies to advise the Nigerian University System on the graduate needs of the labour market has frequently led to a mismatch between competencies demanded by industry and those acquired by the products of the universities. This is also responsible in part for high unemployment and underemployment among graduates despite ironic shortages in some of the science and technology disciplines.

Some of the reasons for many African countries, and indeed most developing economies, failing to develop and provide labour market information for their own policy development and planning include:

- Limited capacity and means for conducting, in an efficient, consistent and prompt manner, the collection, processing, analysis and dissemination of LMI ;
- Bad and/or incomplete coverage of the field;
- Inability to compile or not paying sufficient attention to compiling information from various sources;
- Inability to incorporate informal sector data collection exercises into the national framework;
- Ill-adapted resources for statistical programmes and other activities aimed at generating LMI;
- Difficulty for statistical data users to clearly define their needs and to submit them to LMI producers;
- Inadequate analysis of information gathered to address the needs of decision-makers;

- Labour market information systems failing to provide timely responses to emerging situations;
- Poor structural mechanisms for establishing the link between policy implementation and labour market trends;
- Imbalance between qualitative and quantitative information on the labour market; and
- Not assessing the relevance and utility of the information for the various users, particularly those outside public ministries, departments and agencies.

National socio-economic development is largely dependent upon a country's ability to effectively develop and utilize its human resources. Such development is better realized through implementation of plans, policies and programmes that are informed by relevant, reliable, timely and organized information on major aspects of the labour market. An organized labour market information system would enable a realistic appraisal of key aspects of the country's labour market at any point in time and also inform monitoring and evaluation through keeping close tabs on the relevant economic performance indices. Feedback from such information (especially on user perception of the products) would also guide higher education institutions in programme development and on the quality and relevance of their products for purposes of effective academic planning. Other beneficiaries would include policy makers, prospective investors, job seekers, employers and career counselors as well as candidates seeking admission to tertiary institutions and students at all the levels of education.

12.1.2 Labour market information in Nigeria

Nigeria had for long recognized the need for labour market information and its role in development of national human resource plans. It is for this reason that the National Manpower Board (NMB) was established to collect, process, analyse and deploy LMI for development of sectorial policies including education. Following its apparent inability to effectively

discharge this mandate to meet government expectations, however, the NMB was subsequently scrapped by executive fiat and its duties assigned to the Nigeria Institute for Social and Economic Research (NISER) without amending the extant laws of either institution. It is clear therefore that, before the present project, Nigeria had no institutional framework dedicated to collection, collation, maintenance and dissemination of LMI.

It is relevant, however, that various public and organized private sector agencies in Nigeria do indeed collect, process, maintain and deploy labour market information toward their various developmental objectives within their jurisdiction often at great cost and with duplication of effort. Such information is sometimes published at irregular intervals and often with long delays occasioned by undue bureaucracy that is attached to the process of approval for its release. This is exacerbated by poor or non-use of ICTs toward LMI objectives thereby leading to significantly lowered value of such information to users. Additionally, such disparate, modular and insular approach to LMI creates inefficiencies in the management and deployment of labour market information. It is critical therefore that a central, coordinated, effective and efficient labour market information system be established (through government intervention) to organize and provide LMI to public and private sector agencies as well as to individuals and researchers that seek such data.

The strategic vision of the Federal Government of Nigeria (FGN) for tertiary education emphasizes quality and relevance of science and technology (S&T) education and training. It is for this reason that the government introduced policies for increased enrolment in the science and technology programs, improved research and technology infrastructure, and revamped quality assurance mechanisms. As part of that policy, the Federal Government procured a credit facility from the International Development Agency of the World Bank (Credit No. IDA-43040) through its Federal Ministry of Education (FME) to finance

Science and Technology Education at the Post-Basic (STEP-B) level in Federal institutions in Nigeria. The STEP-B project which became effective on February 11, 2008 aims to produce more and better qualified science and technology graduates as well as relevant and qualitative research. The project which is being implemented jointly by the Federal Ministry of Education (FME) and the Federal Ministry of Science and Technology (FMST), includes a component to address system-wide, cross-cutting issues such as regular review of the labour market and university programs in order to match graduate output with the competencies that are in demand in industry.

Cognizant of the importance of and need for labour market information in national planning and especially in crafting educational policies and planning educational programmes, the National Universities Commission submitted a proposal to the World Bank, through the STEP-B Project, for a sub-project that would establish a labour market observatory to embark on regular labour market studies; entrench a mechanism for monitoring skills demand in Nigeria with a view to developing policy to correct any disparity between the human resource needs of industry and the competencies of products of the universities; identify an institution that would domicile the labour market observatory and maintain a national labour market information system (LMIS) on sustainable basis; and advise Government on rate of employment; among other policy advisory functions.

The National Universities Commission, upon receiving the approval of the World Bank, constituted a Committee for the NUC/STEP-B Labour Market Observatory Project and appointed two consultants to jointly ensure the effective implementation of the project to achieve its deliverables. This effectively gave birth to the Labour Market Observatory Project (LMOP) which commenced business in September 2011.

1.2 Concept of the Project

12.2.1 Objectives of the Labour Market Observatory Project

The objectives of the Labour Market Observatory Project are:

a. To create among stakeholders awareness of LMI, its benefit and the need for a coordinated Nigeria labour market information system;

b. To recruit commitment of the relevant public and private authorities to providing policy support for the Labour Market Observatory Project and the Nigeria Labour market information system;

c. To elicit collaboration of stakeholder agencies and organisations in the implementation of the Nigeria Labour Market Information System (LMIS).

d. To identify labour market information needs of stakeholders;

e. To develop key labour market indicators based on identified LMI needs of stakeholders;

f. To develop a comprehensive labour market information system in collaboration with planners, producers and users of LMI;

g. To regularly collect, process, store, analyse, use, share and disseminate labour market data and information among stakeholders especially in the Nigerian economy;

h. To guide national policy and programme development on labour market issues; e.g. national decisions on higher education programmes;

i. To put in place structures at national level for LMIS policy and at institutional level for management of the Nigeria LMIS on a sustainable basis; and

j. To identify skill gaps among LMIS desk officers and on this basis, conduct targeted training to build their capacity for effective participation in the LMOP and the Nigeria LMIS.

12.2.2 Activities for achievement of the objectives

The activities that were planned toward achievement of the development objectives of the LMOP are as follows:

a. Hold a workshop for sensitization of and advocacy among LMI stakeholders;

b. Establish a national governance structure for the Nigeria LMIS and an institutional structure for the management of the LMOP and LMIS;

c. Develop sets of key labour market indicators to be monitored by the LMOP and the LMIS;

d. Develop instruments for data collection in an LMOP pilot survey for LMI;

e. Carry out the pilot survey for collection of LMI;

f. Acquire and customize LMIS database software for the LMOP and the LMIS;

g. Secure server space for LMIS data storage;

h. Develop a LMIS data processing and sharing system;

i. Hold a LMIS training workshop for desk officers;

j. Do a final LMOP report (Pilot LMIS report inclusive).

12.2.3   Key outcome indicators for the Project

Outcomes expected from the Labour Market Observatory Project and indicators by which they would be monitored are set out in the concept document approved by both the Federal Government and the World Bank as:

a. Appointment of consultants:
  i.   Consultants' reports,
  ii. Minutes of implementation committee meetings,
  iii. Annual LM reports generated by the LMOP/LMIS;

b. Organisation of stakeholder workshops;

c. Establishment of appropriate national & institutional mechanisms for managing the LMOP and LMIS:
  i.   National Steering Committee,
  ii. National Technical Committee,
  iii. Implementation committee (LMOP Committee),
  iv. An LM secretariat at the host institution;

d. Implementation of a human resource development programme:
    i. Report on training needs,
    ii. Report on training activity,
    iii. Assessment of training;
e. Establishment of an LMIS data acquisition and management system:
    i. LMOP/Pilot LMI report;
f. Establishment of a database with data processing and delivery mechanism:
    i. Procurement, customization & commissioning of LMIS software,
    ii. Training of users of the software,
    iii. Tabular and graphic reports from Pilot LMI Survey; and
g. Final and full LMOP project report.

12.2.4 Project strategy

The LMOP plan envisaged that project implementation would involve the following strategies:

a. Recruitment of consultants to guide the process of establishing the LMIS: It was planned that a Technical Consultant with expertise in labour market statistics and analysis and a Lead Consultant to provide overall project management guidance be engaged for the project;

b. Advocacy for the establishment of the labour market information system: It was planned to conduct advocacy continually and especially at the initial stage. To this end, seminars and workshops would be organized to sensitize the major public and private sector stakeholders on the mission of an LMIS and its benefit as a catalyst to national economic development.

c. Establishment of a national policy for and institutional mechanism to handle LMIS: It was planned to put in place a coordinated data collection and dissemination system at the national level with a national implementation committee and NUC STEP-B Team as the

secretariat to manage the LMIS under the policy direction of a National Steering Committee. The project would lead to the production of the first LMI report.

d. Partnerships in the development of LMI and manpower planning: For a functional, efficient and effective LMIS, the LMOP would develop partnerships with relevant public and private sector stakeholders for purposes of networking and pooling of experiences and resources. Partners would include producers and users of employment and demographic statistics, research institutes, tertiary education institutions and policy makers.

e. Data collection system: The data collection system would entail utilization of institutional human resource data as well as regular surveys to generate information usually not covered by routine operational data.

f. Use of ICT tools and creation of databases: It was planned that the project would utilize ICTs for data storage, retrieval and analysis as well as for report creation. To this end, suitable software would be acquired and server space identified for the project. In addition, a national LMIS database would be created and maintained with NUC as main hub and the key stakeholder organizations as sub-hubs.

1.3   Conceptual Matters

To enable a clear understanding of the context in which certain terminologies have been used in this report, some of the more specialized terms have been defined in this section.

12.3.1   Labour force:

Labour force pertains to all those persons who are working or looking for work.

12.3.2   Labour market:

Labour market is an informal mechanism by which demand for and supply of labour interact. This could be in the context of a community, city, state, zone, country, region, etc.

12.3.3   Labour market information:

Labour market information is data and information which describe the characteristics of the supply of and demand for labour within a specified labour market. LMI may be quantitative or qualitative. It may be obtained through surveys and from secondary sources at public and private organisations. The International Labour Organisation (ILO) has defined "Key Indicators of the Labour Market" in a database of the same name (KILM).

1.4   Key Indicators of the Labour Market (KILM)

KILM is the ILO's database of country level data on 18 labour market characteristics relating to employment and unemployment. It highlights current labour market trends and is useful to policy makers and researchers for monitoring labour market issues and trends. It also provides an internationally recognized standard for describing the characteristics of the labour market and thereby creates a common understanding to enable comparability of information from different economies. The different labour characteristics that constitute the KILM are shown here in Appendix 1.

1.5   International Standard Classification of Occupations (ISCO)

In order to create a common understanding of categories of occupations across borders internationally, the ILO at its 1989 and 1999 meetings organized occupations, according to the tasks and duties undertaken in the job, into the following ten groups:

  a. Legislators, Senior officials and Managers;
  b. Professionals;
  c. Technicians and Associate professionals;
  d. Clerks;
  e. Service workers and Shop & Market sales workers;
  f. Skilled agricultural and fisheries workers;
  g. Craft and related trades workers;

h. Plant and machine operators;
i. Elementary occupations; and
j. Armed forces.

A more detailed presentation of the ISCO obtained from the relevant ILO website is shown here in Appendix 2.

2. PROJECT IMPLEMENTATION

2.1 Work Plan

For purposes of focus and strategic direction in the implementation of the project, a work plan was drawn up and agreed both by the LMOP Committee at NUC and by the National Steering Committee on LMIS. The work plan was revised several times to accommodate changes occasioned by delays from various unforeseen events during its implementation. The implemented work plan is shown here in Appendix 3.

2.2 Funding

The Project was funded in part from the Federal Government loan facility of $500,000.00 obtained from the World Bank and in the other part by the National Universities Commission. Whereas the housing and personnel costs of the project (other than the consultants) were borne by the Commission, the loan facility supported the other requirements of the project. Financial reporting requirements of both sources were fully adhered to by the STEP-B Project management.

2.3 Governance

The organogram for the governance structure of the LMOP and national LMIS is shown in Appendix 4. At the apex of the governance structure is a National Steering Committee on LMIS chaired by the Executive Secretary National Universities Commission with chief executives of all stakeholder institutions as members. The Steering Committee, similar to a governing board, is charged with providing policy direction for the LMOP and the LMIS and for considering key project implementation decisions. Membership of the Steering Committee is shown in Appendix 5. Secondly, a National Technical Committee on LMIS chaired by the Deputy Executive Secretary

NUC and Chairman of the LMOP Committee with LMIS desk officers of stakeholder organisations as members, was established to advise the LMOP on technical matters relating to the LMIS. Membership of the NTC-LMIS is shown in Appendix 6.

The NUC also constituted a Labour Market Observatory Project Committee with the Deputy Executive Secretary as chairman and a representative from each of the departments of the Commission. The LMOP Committee was mandated to work with the two consultants to implement the Labour Market Observatory Project. Membership of the LMOP Committee is shown in Appendix 7. The NUC STEP-B office was assigned to serve as secretariat for the Project.

Subsequently and mid-way in implementation of the project, a Labour Market Observatory Unit was established as a Division in the NUC Executive Secretary's Office that would work with the project secretariat. At the end of the life of the LMOP, the Unit is expected to continue to manage the LMIS for sustainability. Staff of the Unit indicating qualifications and rank is shown in Appendix 8.

2.4 Establishment of a Labour Market Observatory (LMO) and Creation of a LMIS Network

In accordance with provisions of the concept document, which had been approved by both NUC Management and the World Bank, a Labour Market Observatory (LMO) was established on 13 March 2012 and is domiciled in a special Unit (i.e. LMO Unit) created in the Executive Secretary's Office at the National Universities Commission. The LMO Unit is charged with the responsibility of maintaining a Nigeria Labour Market Information System with NUC as the main database hub with nodes at other LMIS stakeholder organisations.

It is relevant that the Nigeria LMIS stakeholders, at their October 2011 workshop, had considered and agreed on the LMIS governance structure as expressly indicated in their workshop communiqué prior to its

implementation. The agreed structure not only confers ownership of the LMIS on all the stakeholders, but also catalyzes stakeholder support essential for success of the Observatory. It also effectively creates a national network for efficient functioning of the LMO project and the Nigeria LMIS.

2.5   Meetings

12.5.1   LMOP Committee

As shown in the work plan, the NUC LMOP Committee, after its inauguration, held eight regular strategy meetings as well as several ad-hoc meetings to review work done and perfect plans for future work. The Committee also in December 2012 met and interacted with a fact-finding World Bank mission from Washington DC.

12.5.2   National Steering Committee on LMIS

The National Steering Committee on LMIS held its only meeting so far immediately after the LMOP Sensitization Workshop to consider the governance structure and other operational arrangements and thereby set the agenda for the LMOP and LMIS. It intends to hold the second meeting immediately after the dissemination workshop to consider the agenda for the LMIS beyond the LMOP.

12.5.3   National Technical Committee on LMIS

The National Technical Committee on LMIS on its part, held two meetings, one during the sensitization workshop and the second one immediately after the training workshop. A third meeting will hold during the dissemination workshop.

The second meeting of the NTC-LMIS which was held in the course of the workshop on Tuesday 21 March 2012, considered and agreed on the items of information that would form the content for the Nigeria LMIS database (Appendix 9). The meeting also considered and agreed on the strategies and the instrument for collection of data for both the LMOP pilot and subsequently the LMIS surveys.

12.5.4 Consultations

Consultation meetings were also held on the basis of need with the NUC Management and the STEP-B National Project Secretariat to align implementation with policy guidelines and to ensure policy and material support.

2.6 Consultants' Reporting requirement

The Lead Consultant made monthly reports in the first eight months of the LMOP. Subsequently, however when the activities relating to the LMIS survey became necessarily sparse over time, the Lead consultant made prompt reports as soon as any significant activity such as workshops and meetings of the national committees on LMIS were held. Reports by the Lead consultant were:

a. Monthly reports for September, October, November and December 2011; and January, February and March 2012;
b. Report on survey of stakeholder needs for LMI and for training;
c. Report on Stakeholder Sensitization Workshop;
d. Report on Training Workshop for LMIS Desk Officers; etc.

These periodic reports are shown as Annexure 1 in Volume 2 of this report.

3. WORKSHOPS

3.1 Sensitization Workshop on LMOP & LMIS for Awareness Creation

12.1.1 Preamble

The National Universities Commission (NUC) considered that it would need to work in collaboration with other stakeholder organisations in order to establish a functional Labour Market Observatory that would effectively manage the proposed Nigeria Labour Market Information System (LMIS). The Commission also considered that information from the LMIS would provide the basis for labour market policy in the public and private sectors. In the education sector, for instance, data from the Observatory would inform decision on the breadth and content of courses

and programmes of tertiary institutions as well as the number of graduates required by the economy in each academic discipline. It is for these reasons, and to meet the objectives of the LMOP, that the NUC convened a Stakeholder Sensitization Workshop on the Nigeria Labour Market Information System (LMIS) on 18 October 2011.

12.1.2   Objectives of the workshop

The objectives of the Workshop were to: create awareness among stakeholders and the public of the need for a coordinated Labour Market Information System (LMIS) and therefore of the Nigeria Labour Market Observatory Project (LMOP); elicit collaboration of stakeholder agencies and organisations in the implementation of the LMIS; recruit commitment from policy makers to support the LMOP; and develop sustainable information gathering strategies and structures. As an incidental benefit, workshop participants were requested to participate as respondents in a survey to determine LMI needs of stakeholder organisations and the training needs of the LMIS desk officers for skills required for effective collection and handling of LMI data and information.

12.1.3   Participation

The workshop was attended by 41 participants from 26 organisations. The attendance list is presented in the Lead Consultant's comprehensive report on the workshop.

12.1.4   Opening ceremony

The Workshop was declared open by the Executive Secretary, National Universities Commission, Professor Julius A. Okojie, who applauded the quality of persons representing stakeholder organizations at the event. The Opening ceremony featured a welcome address by the Deputy Executive Secretary, National Universities Commission, Mr. A. S. Agbaoye, a keynote address by the NUC Executive Secretary, and a presentation by Professor Ignatius I. Uvah on the objectives of the Nigeria Labour Market Observatory Project. The opening ceremony was brought to a close following a vote of thanks by Dr. Joshua Atah, Program

Manager of STEP-B at NUC. The Workshop then proceeded to the plenary session and thereafter to the technical (syndicate) session.

12.1.5 Plenary session

Papers presented at the plenary session included *Strategies for Collection and Management (i.e. storage, retrieval, analysis, sharing and dissemination) of Labour Market data in the Framework of Information and Communication Technology* by Professor Bankole Oni and Mr. A. Adeoye and *Roles and Responsibilities of the Public and Private Stakeholders in a National Labour Market Information System* by Mr. A. Opatola. Copious and productive follow up discussions ensued at the end of the two presentations.

12.1.6 Technical syndicate session

The technical (syndicate) session which was moderated by Prof. A. O. Olokesusi of NISER, witnessed remarks and group discussions on "Labour Market Information needs of Stakeholders and the Scope of a Nigeria Labour Market Observatory". The four syndicate groups each made a presentation on the subject. The presentations thoroughly examined these themes and the objectives of the Workshop and made far-reaching recommendations. These were incorporated into the workshop communiqué which was then read and agreed.

12.1.7 Questionnaire

The questionnaire was distributed to the participants at the workshop. It was an instrument for assessment of the capacity building and labour market information needs of the stakeholders present at the workshop. The findings from this are separately presented in this report.

12.1.8 Communiqué

The workshop agreed on a communiqué which is shown here in Appendix 10. As shown in the communiqué, the workshop agreed that: all organisations relevant to LMIS would collaborate in the LMOP and LMIS as stakeholders; the governance structure for the LMOP would include a

National Steering Committee and a National Technical Committee on LMIS in advisory role; appropriate stakeholder organisations would be part of the implementation structure for LMIS; the proposed list of items would be part of the data and information to be collected regularly by LMIS; NUC would seek federal statutory appropriation for sustainability of LMIS; and LMIS data and information would be published bi-annually.

The matter of stakeholder collaboration, cooperation and support for the LMIS was at the heart of the LMOP Stakeholder Sensitization Workshop held on 18 October 2011. That stakeholders agreed to cooperate, collaborate and support the LMIS through active participation as part of its implementation structure and also as providers and collectors of data as reflected in the communiqué was an important watershed in the implementation of the Project.

12.1.9   Closing

The Deputy Executive Secretary, Mr. A. S. Agbaoye, after making a few remarks on behalf of the Executive Secretary NUC, declared the one-day workshop closed at 5.05 pm.

3.2   Training Workshop for LMIS Desk Officers
12.2.1   Preamble

The LMOP project design envisaged that LMIS desk officers at the various stakeholder organisations would participate in the LMIS as LMI providers and collectors. A questionnaire was therefore issued at the LMOP Stakeholder Sensitization Workshop which sought to know the training needs of the LMIS desk officers with regard to the skills they needed for effective and efficient collection and handling of labour market information. Results of this survey then informed the content of an LMIS Training Workshop that was convened by the LMOP at the NUC Virtual Library on 20 and 21 March 2012 for the LMIS desk officers at all stakeholder organisations.

12.2.2 Objectives of the training workshop

The objectives of the training workshop were to:
- ❖ Provide information on the scope of the LMIS;
- ❖ Equip the LMIS desk officers with the skills they need to effectively collect, collate and deal with labour market information prior to submission to the LMIS database;
- ❖ Provide an avenue for sharing of experiences between desk officers on things that work regarding labour market information; and
- ❖ Provide opportunity for the desk officers to get acquainted with each other and with the NUC LMIS Secretariat.

12.2.3 Attendance at the training workshop

A list of participants at the training workshop shows that 44 persons from 29 organisations attended the workshop.

12.2.4 Opening ceremony of the training workshop

The Opening Ceremony, chaired by the Executive Secretary NUC – Professor Julius A. Okojie, featured a welcome address by the Deputy Executive Secretary, Mr. A. S. Agbaoye (and Chairman LMOP Committee) and a keynote address by the Executive Secretary (ES) who reiterated the legal mandate of NUC to obtain, analyse and utilize labour market information to provide policy advice on tertiary education to government as the basis for NUC embarking on the LMOP. The ES also encouraged the workshop delegates to continue to collaborate with NUC on the LMOP.

The Opening Ceremony also featured a presentation by Professor Ignatius Uvah titled, '*The nature and scope of labour market information*' by which he not only explained the objectives of the workshop but also presented results of a needs assessment survey he had conducted in 2011 on stakeholder perception of the needs of Nigeria for labour market information. Prof. Uvah then explained the ILO's *Key Indicators of the Labour Market* (KILM). The KILM together with results of the needs survey and literature on country LMISs on two continents, provided the basis for determining the specific aspects of labour market information that would constitute the content for the Nigeria Labour Market Information System. After a vote of thanks given by Dr. Joshua Atah, the Executive Secretary declared the Opening Ceremony closed.

12.2.5 Plenary session presentations

The three plenary sessions on Tuesday and Wednesday 20 & 21 March 2012 featured the following four presentations:

- ❖ *Sources of LMI, their problems and solutions* by Prof. Bankole Oni
- ❖ *Techniques for collection of labour market data and information* by Mr. Akintunde Opatola and Margaret Bola Oni
- ❖ *Storage of labour market data and information* by Mr. Isiaka Balogun; and
- ❖ *Deployment of ICT for access to, and for storage, retrieval, processing and sharing of labour market information* by Dr. Joshua Atah.

The papers were generally well received and elicited considerable interest and discussion.

12.2.6   Evaluation of the workshop

Participants were requested to evaluate the workshop on a scale of five utilizing the instrument that was collectively developed and agreed on the floor of the workshop. Results of the evaluative survey were released on the spot after analysis by the workshop rapporteur-general, Dr. Noel Saliu (Fig. 1). They showed that a great majority of participants perceived the training workshop as either 'Very good', 'Good' or 'Fair' with regard to:

- ❖ Organisation of the workshop (88.9%);
- ❖ Paper presentation (92.6%);
- ❖ Sequencing of the events (96.3%);
- ❖ Time allocation (85.2%);
- ❖ Refreshments (81.5%);
- ❖ Venue (81.5%); and
- ❖ General arrangements (88.9%).

Very few of the participants (3.7% to 18.5%) viewed the workshop as either 'Poor', 'Very poor' of 'Bad'.

While analysis of participants' evaluation of the workshop was being done, a meeting of the National Technical Committee on LMIS was held.

Fig.1: Participant evaluation of the LMOP Training Workshop on LMIS

	Organisation of the Workshop	Paper Presentation	Sequencing of the Event	Time Allocation	Refreshment	Venue	General Arrangement
Very Good	3	8	2	5	7	6	2
Good	16	12	12	14	5	5	10
Fair	5	5	12	4	10	11	12
Poor	2	1	0	2	4	4	1
Very Poor	0	0	0	0	1	1	2
Bad	1	1	1	1	0	0	0
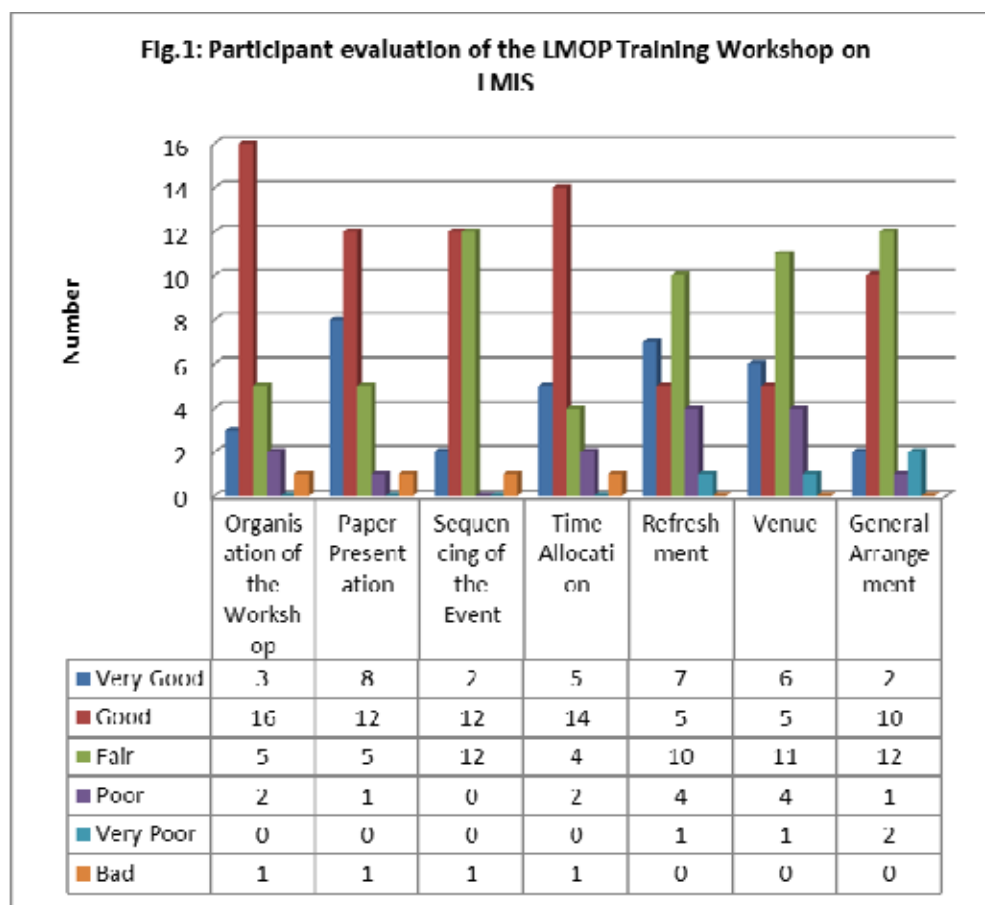
12.2.7 Closing

The Deputy Executive Secretary NUC, Mr. A. S. Agbaoye after a few remarks thanking participants for their contribution to the success of the workshop which he described as very fruitful, declared the workshop closed.

3.3 Dissemination Workshop

When this final LMOP report is ready, a dissemination workshop will be convened to distribute copies of and popularize the report.

4. SURVEYS

4.1 Needs Assessment of Stakeholders for LMI

12.1.1 Preamble

The set of labour market data and information that will constitute the content of the LMIS must be responsive to the labour market information needs of stakeholders in Nigeria and beyond. It is for this reason that the LMOP sought, through a questionnaire, to determine the nature of labour

market information that is demanded by the stakeholders that were represented at the LMOP Sensitization Workshop. Information so obtained would inform the decision on the set of *key indicators of the labour market* to keep as content for the Nigeria LMIS.

12.1.2   Methodology

a. Formulation and administration of the questionnaire

For purposes of determining the needs of LMIS stakeholders for labour market information, a questionnaire was conceptualised and formulated as shown here in Appendix 11. The questionnaire was served on delegates representing various LMIS stakeholder organisations during the Workshop for the sensitisation of stakeholders on the Labour Market Observatory Project and the Labour Market Information System held on 18 October 2011 at the National Virtual Library Building, National Universities Commission, Abuja. Formats completed by delegates were returned at that event on the same day. The respondents returned 17 questionnaires.

b. Analysis of the questionnaire

Respondents that returned completed questionnaires were affiliated with the following organisations:

1) Federal Ministry of Labour and Productivity – 2 Departments
2) Centre for Management Development
3) Michael Imoudu National Institute for Labour Studies, Ilorin
4) Federal Ministry of Industry, Trade and Investments
5) Nigeria Association of Chambers of Commerce for Industry, Mines and Agriculture
6) National Population Commission
7) National Bureau of Statistics
8) Central Bank of Nigeria
9) Nigeria Employers' Consultative Association
10)   Chartered Institute of Personnel Management

11) Small and Medium Enterprises Development Agency of Nigeria

12) International Labour Organisation

13) Delta State University and Visiting Professor at NUC

14) Chartered Institute of Bankers of Nigeria

15) National Directorate of Employment

16) Federal Ministry of Education

Frequency distribution of responses to each question was determined by simple count. Trends of perception by the respondents were depicted in bar charts. A comprehensive list of LMI needs of stakeholders was drawn up by collating from the lists done by individual respondents on their completed questionnaires.

12.1.3   Findings and deductions therefrom

a. Labour market information needs

Upon request that they list items of labour market information that they would need from the planned LMIS, stakeholder organisations listed the following items of data and information:

1) Employment (by LG, State and FG; by salary, gender, etc.)

2) Underemployment

3) Unemployment

4) Technical and Vocational Education and Training (TVET)

5) Excess manpower

6) Job vacancies

7) Trade union activities

8) Private employment agencies

9) Trade disputes

10) Labour inspections

11) Observed Labour contraventions

12) Management training data/Staff development

13) Number of managers in the private sector

14) Training of staff for data collection

22

15) Graduate output by discipline

16) Labour requirements

17) Skill gaps in the economy/Skill assessment

18) Economic development indicators

19) Social statistics/Demographic data

20) Government labour policies & regulations

21) Wage indices/Pay rates

22) Productivity index

23) Lists of management organisations

24) Skill requirements/Qualifications/Preferences

25) Capacity utilisation

26) Graduate new entrants to the labour market

27) Employment service centres

28) Training institutions

29) Employment preferences of applicants

30) NYSC discharge statistics

12.1.4   Recommendations

It was recommended that a set of *Key Labour Market Indicators* that would be regularly monitored by the LMOP be drawn up taking into consideration the stakeholder LMI needs here identified, the data items agreed in the syndicate discussion at the LMOP sensitization workshop, and the International Labour Organisation LMI standard (i.e. the KILM).

4.2   Training Needs of Desk Officers

12.2.1   Preamble

To establish an effective LMIS, planners, producers and users of Labour Market Information (LMI) must necessarily cooperate in the collection, processing and sharing of the relevant information. For this to be effective, collection and handling of information by the desk officers at the LMIS collaborating agencies needs to be consistent. Such consistency, however, can only be achieved where the nodal persons have common understanding of the requirements for collection, collation and

analysis of labour market information. It is for this reason that the NUC (working with the project consultants) conducted a survey to identify the deficiencies among LMIS desk officers in the skills required for effective collection, processing, storage and dissemination of labour market information as a basis for determining their training needs toward effective capacity building for the LMOP.

12.2.2   Methodology

a. Formulation and administration of the questionnaire

For purposes of determining the training needs of LMIS stakeholders in the skills they must have to be able to effectively collect, collate, store and process LMIS data and information, a questionnaire was drawn up as shown here in Appendix 11. The questionnaire, which sought information for both training and LMI needs, was served on delegates representing various organisations at the LMIS stakeholder sensitisation workshop held on 18 October 2011 at the National Virtual Library Building, National Universities Commission, Abuja. Formats completed by delegates were returned at the event on the same day. A total of 17 persons from 16 (out of total 24) organisations attending the workshop returned completed questionnaires.

b. Analysis of the questionnaire

Organisations that returned the questionnaire are listed here in Section 4.1.2b. Frequency distribution of responses was determined by simple count. Trends of perception by the respondents on their competencies in skills for handling LMI were illustrated in bar charts. The analysis took into consideration that some of the respondents did not answer all of the questions in the questionnaire.

12.2.3   Findings and deductions

Findings on the perception of the respondents on their own knowledge and skills in various aspects of LMI data collection and processing are presented in the next few sections.

a. Knowledge and expertise in LMI data collection

Asked to rate themselves with regard to their knowledge and expertise in LMI data collection methods, ten of the respondents rated themselves as 'very good' while the remaining respondents (7) rated themselves as 'good'. Fig. 2 which shows the pattern of stakeholder responses in a bar chart indicates the belief by most stakeholders that they were knowledgeable on and had good expertise in methods for collection of LMI data and information.

Fig. 2: Stakeholder knowledge and expertise in LMI data collection
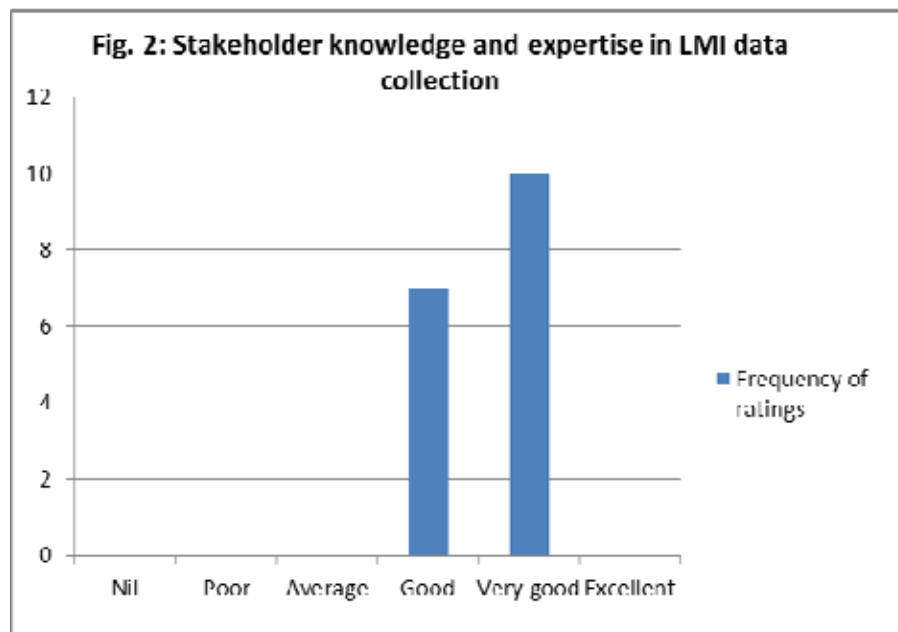
b. LMI data and information processing

Respondents rated their competence in LMI data and information processing as very good (10 responses), good (3) and average (4). This is depicted in Fig. 3 which shows that most stakeholders were confident in their own ability to process LMI information except for

24% of them who did not believe that they were good enough in this regard.

Fig. 3: Stakeholder expertise in LMI data processing
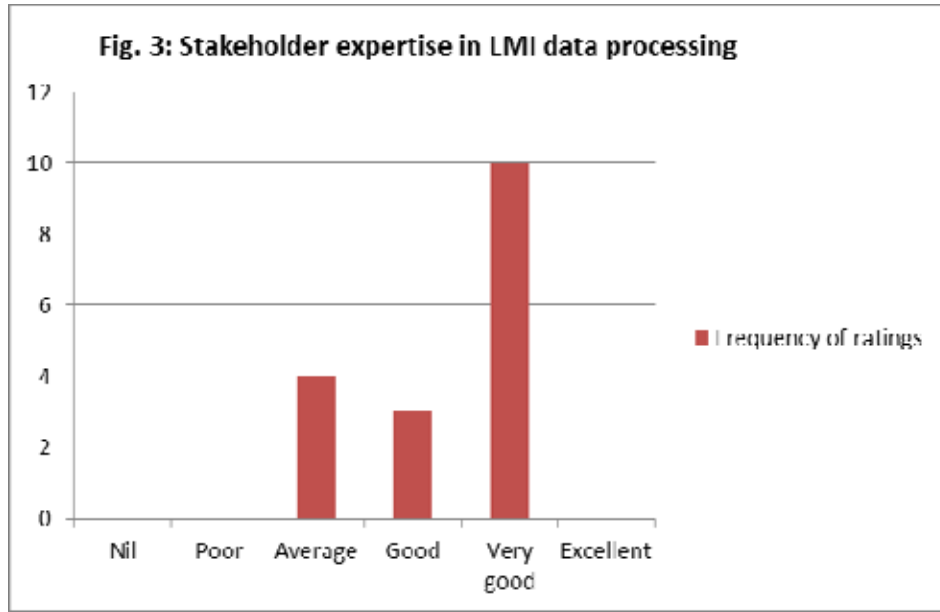
c. Data and Information Analysis
On data analysis, respondents rated themselves as very good (9), good (2), or average (6) as shown in Fig. 4. Thus 35% of the respondents believed that they were only of average competence in this regard. It is clear therefore that over one third of the stakeholders perceived themselves as not being proficient in data and information analysis.

Fig. 4: Stakeholder competence in data and Information analysis
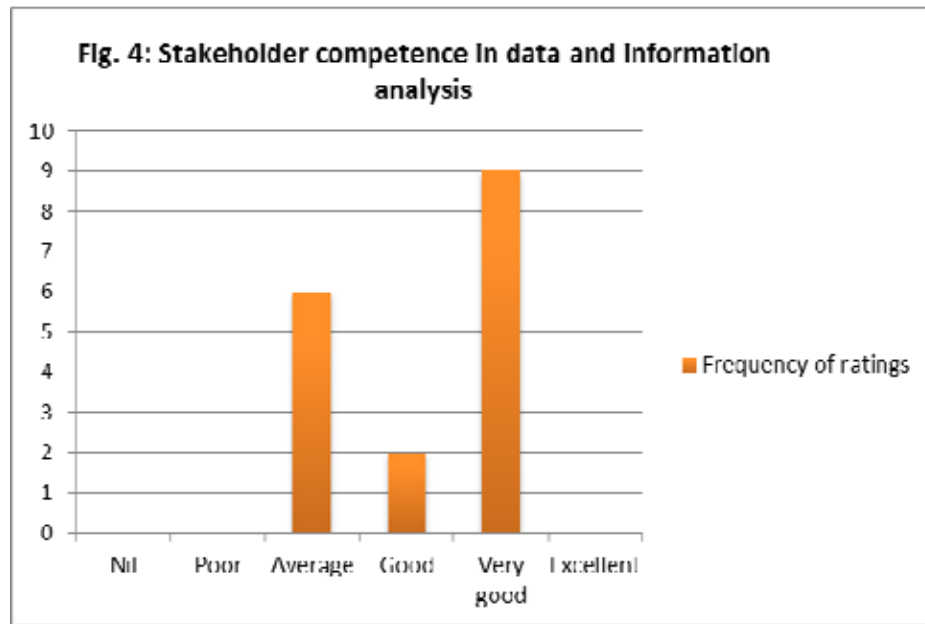
d. LMI data report formats

When respondents were requested to rate their own expertise in formulation of data report formats for LMI, they rated themselves as being very good (7), good (5) and average (3). The result is also shown in Fig. 5. Thus 20% of the respondents perceived themselves as not being good enough in the skill for formulation of LMI data report formats.

Fig. 5: Stakeholder expertise in formulating LMI data report formats
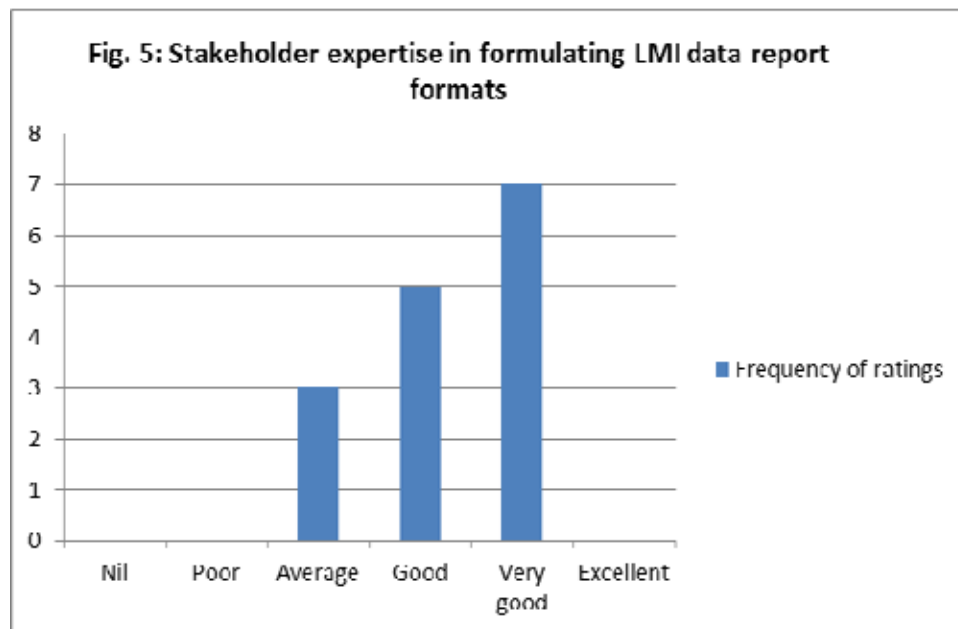
e. Report writing on LMI

Respondents rated their own capability in LMI report writing as very good (7), good (6) and average (3). The distribution of responses is shown in Fig. 6. This result suggests that most respondents (81%) believed that they were capable of writing LMI reports well.

Fig. 6: Stakeholder expertise in report writing on LMI
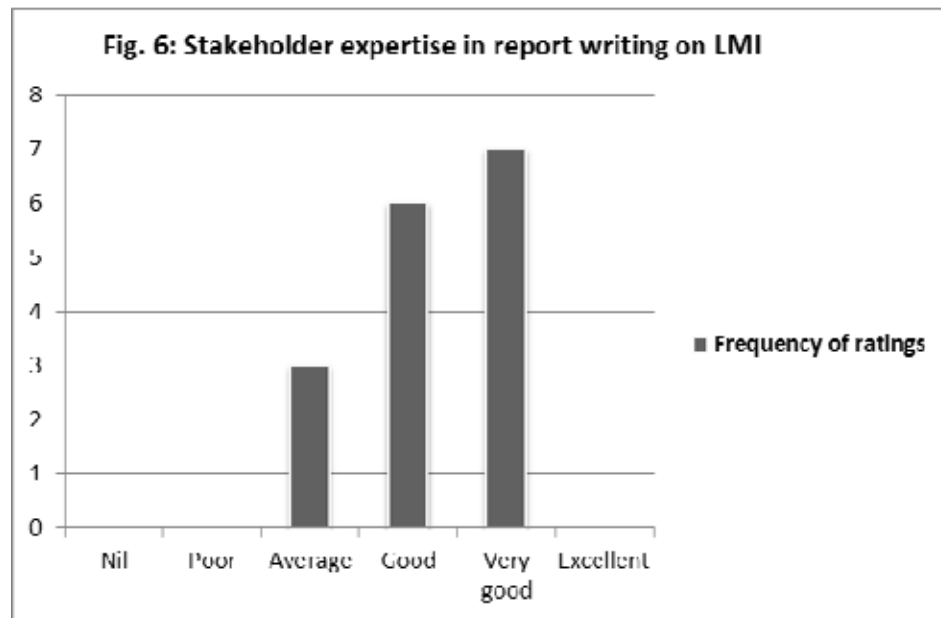
a. LMIS software applications capability
i. LMIS software utilisation

Requested to rate their own previous experience with utilisation of LMIS software on a scale of 5, respondents rated themselves as very high (1), high (2), average (8), poor (2) and nil (4) respectively. The chart in Fig. 7 also depicts these results. The result shows clearly that very few (18%) of the stakeholders had good experience with using LMI software applications. The remainder (82%) had limited or no experience at all in this regard.

Fig. 7: Previous stakeholder LMI software utilisation experience
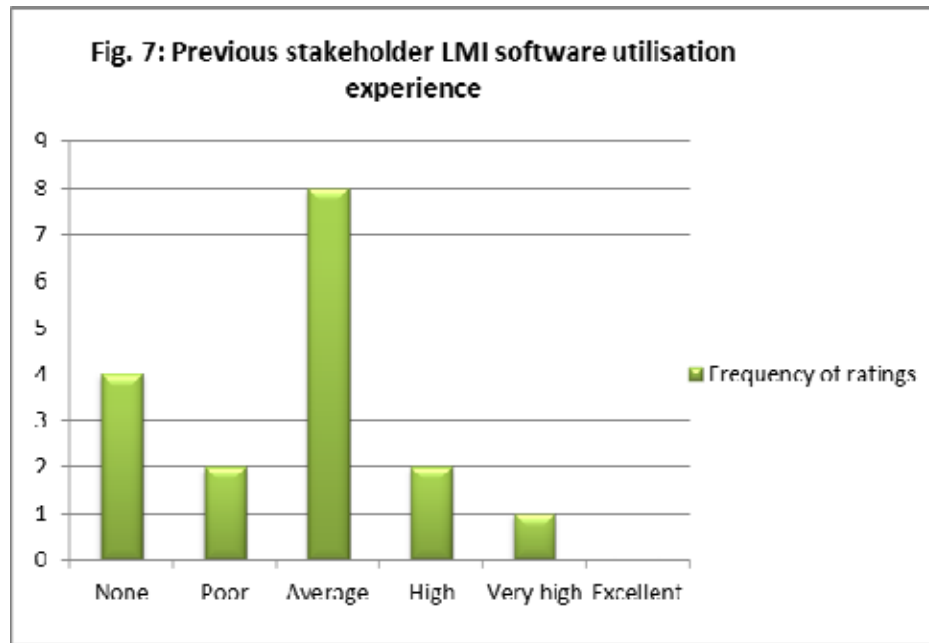
ii.   LMIS/Human resource (HR) software utilisation

When stakeholders were requested to indicate the number of LMI/HR software they had previously utilised, they gave the numbers as 4 (1 response), 3 (2), 2 (4), one (3) and none (3) respectively. Fig. 8 shows distribution of their responses in a bar chart. It is evident therefore that most of the respondents had previously utilised one or more LMI or HR software. However, 18% 0f the respondents had never before utilised such software.

Fig. 8: Number of LMI/HR softwares previously utilised by stakeholders
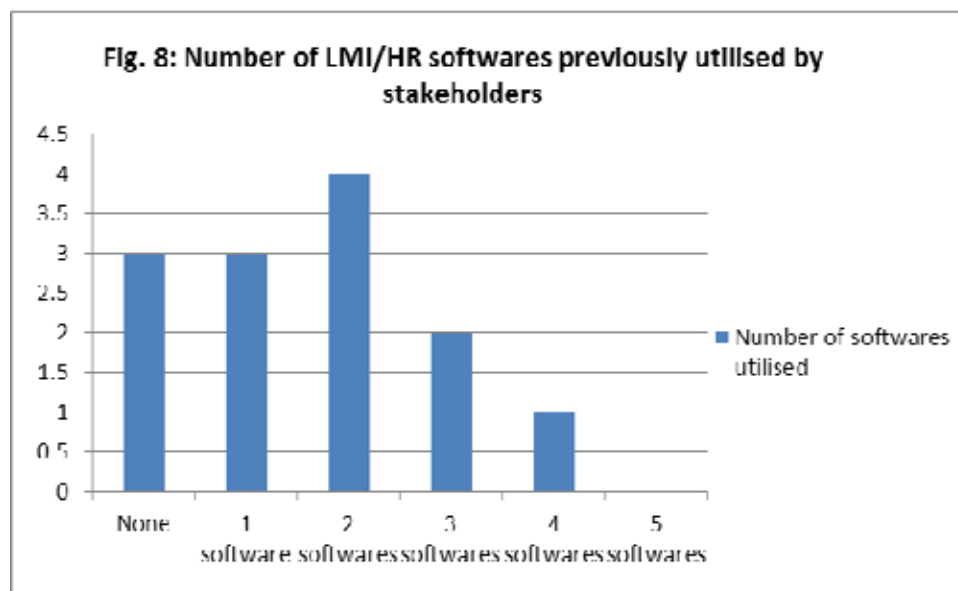
iii. LMIS software administration

Respondents rated their expertise in LMIS software administration as being good (3), average (6), poor (2) and nil (2) respectively. These results are depicted in Fig. 9. This indicates that majority of the respondents (82%) had little or no expertise in administration of LMIS software.

Fig. 9: Stakeholder expertise in LMIS software administration
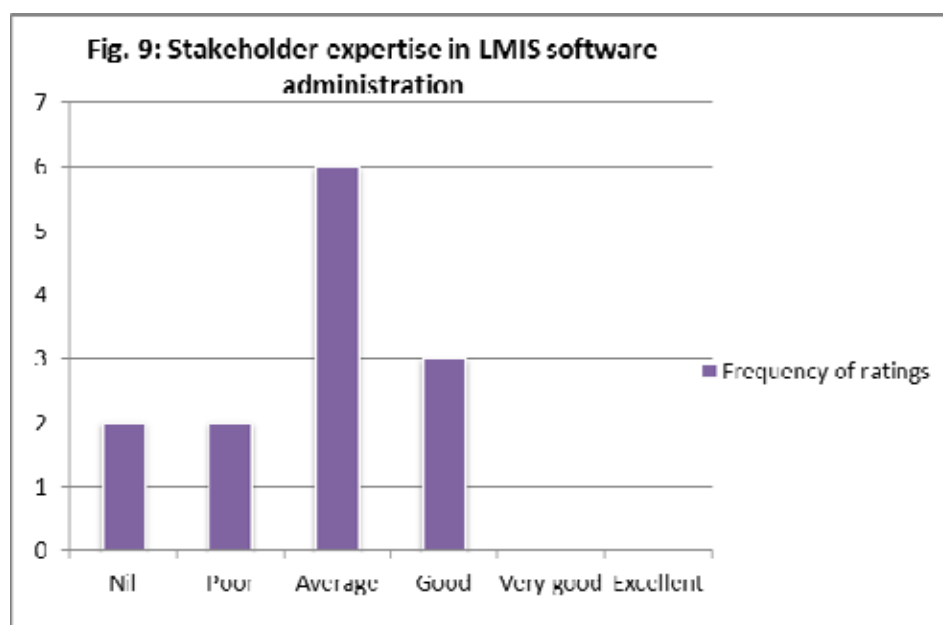
12.2.4 Recommendations

The foregoing results from the survey indicate that the LMIS desk officers who had completed the questionnaire believed that they knew and were able to utilise methods for LMI data collection well. Similarly, most desk officers were confident about their own ability to properly process LMI data and information. A few of them, however, indicated that they had only average data processing expertise. The latter pattern was repeated for stakeholder competence in LMI data analysis, Formulation of data report formats and Report writing.

A different pattern emerged in the case of LMIS/HR software utilisation and administration where most respondents indicated that they had previously utilised one or more LMI/HR software. In spite of this, however, their responses also showed that they had little or no expertise in LMI software utilisation and administration.

Consequent upon these findings and considering the objective to empower these LMIS desk officers from stakeholder organisations with the knowledge and skills they required to effectively participate in the Labour Market Observatory Project, it was recommended that they be trained with emphasis in the following areas:

   a. LMIS data and information collection and collation methods;
   b. LMIS data and information processing and analysis;
   c. Formulation of LMIS data report formats and report writing; and
   d. LMIS software utilisation and administration.

It was further advised that the training programme pay priority attention to Items b, c and d.

4.3   Pilot Survey of LMI in the Manufacturing Sector in Nigeria

This is reported separately here in Section 7.

5. LMIS SOFTWARE

5.1   Software Acquisition

The NUC procured a labour market information system software named Computerised Labour Market Information System (COLMIS) for use by the LMOP in its pilot LMI survey of the manufacturing sector and subsequently by the LMO in the larger LMIS survey covering all sectors of the Nigerian economy.

5.2 Software Customisation and Characteristics

An ICT consultant was engaged to customize the software to suit the nature and format of the information that it would be required to capture, store, analyse and produce both graphic and tabular reports. Some vital characteristics of COLMIS include:

a. It is a web based application;
b. Its programming and scripting language is PHP
c. It does not have any framework nor CMS;
d. Its operating System is Windows Server 2003;
e. The server for the application is XAMPP; and
f. The database technology that drives it is MySQL.

5.3 Software Installation and Accessibility

COLMIS is currently installed on a server running on Windows Server 2003 operating system. It is accessible via the local area network (LAN) at the NUC Virtual Library.

To access the software, the user must first have the relevant 'access software' installed on his computer. He must then be granted permission by the software administrator upon which a username and a password would be assigned to him. There are several levels of permission which grant differential access to various parts of the software. The user, upon meeting these requirements, is ready to access the software.

5.4 Software Functions and Capability

The key functions and capability of COLMIS are as follows:

a. Manage Sectors and subsectors:
   i. Create Sectors

   ii. Create subsectors

   iii. Link subsectors with sectors

 b. Manage participating organization details:

   i. Add participant details

   ii. Update participant details

   iii. Delete participant

   iv. View participant details

 c. Manage Questionnaires:

   i. Create questionnaires

   ii. Search questionnaires

   iii. Print questionnaires

 d. Manage Data:

   i. Input data from completed questionnaire.

   ii. Process data from data inputted.

 e. Generate tables/reports

 f. Manage application users:

   i. Add users

   ii. Delete users

   iii. Update users

The Login pages and the graphic management console of the LMIS software are illustrated in Appendix 29.

6. CONTENT FOR LMI

The LMOP team consulted literature on the content of the LMISs for Lesotho, Namibia, Colombia, Costa Rica, Ghana, Nicaragua, Senegal and Tunisia, being countries from West Africa, Southern Africa, North Africa and South America. The team then considered this information as well as results of its survey on the LMI needs of stakeholder organisations in Nigeria and the advisory list of items of LMI drawn up from the syndicate discussion at the 2011 LMOP Sensitization Workshop. Based on all this information, the LMOP, through its consultants, developed content for the Nigeria LMIS which was considered and approved by the National Technical Committee

on LMIS. The agreed content which is shown here in Appendix 9 also indicates the set of information that would be collected in the LMOP pilot study on LMI.

7. PILOT SURVEY ON LABOUR MARKET INFORMATION IN THE NIGERIAN MANUFACTURING SECTOR, 2012

7.1 The Survey Instrument

Based on the set of items selected from the agreed content for the Nigeria LMIS, the consultants produced a draft questionnaire which was considered and agreed by the LMOP Committee. The LMOP Committee was also agreed that the pilot study would be limited to the manufacturing sector. The nature of the questionnaire was informed by that framework. The approved questionnaire shown here in Appendix 12, sought information along the following major themes:

a. General information on the manufacturing firm;
b. Employment by year, occupation, qualification and gender;
c. Daily hours worked, labour stock, labour projections and job vacancies;
d. Employee competencies and training needs;
e. Wages and salaries; and
f. Labour matters: affiliated staff unions.

7.2 Selection of Respondents

The LMOP Committee, in consultation with the Manufacturers Association of Nigeria (MAN) and the National Association of Chambers of Commerce, Industries, Mines and Agriculture (NACCIMA), identified 632 manufacturing organisations as potential respondents to the questionnaire soliciting LMI from the Nigerian manufacturing sector. The respondents were grouped in eight sub-sectors namely, Pharmaceuticals and Chemicals; Food and Beverages; Non-metallic Products, Electrical and Electronics; Textiles and Leather Products; Automobile; Wood Products and Furniture; and Rubber and Plastics.

7.3 Distribution of the questionnaire

For purposes of persuading the respondents and soliciting their cooperation to indeed complete the questionnaire, the instrument was distributed along with two cover letters, one from the Executive Secretary NUC and the other from the Director General of the Manufacturers Association of Nigeria (MAN). It is worthy of note that MAN has a supervisory role with the manufacturing firms. The questionnaire was subsequently distributed mostly by courier postage and in a few cases by hand delivery in May 2012. It was discovered that some of the firms listed by the NUC's LMIS partners had previously ceased business. Furthermore and in spite of the elaborate persuasive strategy employed, some of the manufacturing firms would not accept the questionnaire; some others received but did not complete the instrument. Thus a total of 351 respondents were actually served and received the instrument. Would-be respondents were given six weeks within which to complete the questionnaire.

7.4 Retrieval of completed questionnaire

On expiry of the six weeks allowed for the respondents to complete the questionnaire, the NUC and other stakeholder organizations dispatched joint teams to retrieve the completed documents. In the event, the teams were able to retrieve a total of 227 completed questionnaires out of the 351 that had been delivered to the respondents. Thus the LMOP achieved 64.7% returns on the questionnaire it had served the manufacturers. It was subsequently discovered that, although they were identified as such by the relevant sources of information, 40 of the respondents could not be confirmed as *de facto* manufacturers. Consequently their responses are not included in the data that was analyzed and is reported here.

7.5 Data entry

Members of staff of the LMO unit at NUC entered the data into the LMIS software ready for analysis.

7.6 Data analysis

The LMO Unit at NUC, in consultation with the consultants, analysed the data to produce graphic and tabular outputs which are utilized in this

report. It is to be noted that some of the respondents did not answer all of the questions posed in the questionnaire. Consequently, each question was analysed on the basis of the total number of valid responses received on that particular item.

7.7 Findings and Deductions thereof

Tabular and graphic reports were created on certain themes relevant to the purpose of the pilot survey. Whereas the graphic reports, mostly in pie and bar charts, and some tables have been utilized to offer some explanation on the observed trends, more detailed tabular reports have been included in Appendices 13-28. These latter tables constitute a digest on labour market information in the manufacturing sector available for use by those who may need the information for their various developmental purposes.

12.7.1 Distribution of respondents by sub-sector and date of establishment

The 187 companies that returned completed and validated questionnaires (i.e. respondents) were distributed among the different manufacturing sub-sectors as shown in Table 1. The highest numbers of responses (62 or 33.2%) were received from the Food and Beverages sub-sector and the least from the Automobile; Wood Products and Furniture subsectors (7 or 3.7%) and the Rubber and Plastics (8 or 4.3%) subsectors. A high number of responses (32 – 51) were also received from the Pharmaceuticals and Chemicals; and the Non-metallic products sub-sectors. Fidelity of interpretation of the data will have to take into consideration the numbers of respondents from the sub-sectors, particularly those with less than 10 responses.

Table 1 further shows that most of the companies included in the survey were established during the two decades following the Companies and Allied Matters Act of 1990. Very few of the surveyed companies were established before 1970. It would appear from these results that expansion in the manufacturing sector began in the 1970s and peaked and maintained a plateau during the 1990s and 2000s decades.

Table 1: Year of Establishment of Organizations by Sub-Sector

Sub-Sectors	Before 1960	1960 - 1969	1970 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	2010 - 2012	Total No.	%
Motor Vehicle	0	1	1	1	0	4	0	7	3.7
Electrical/Electronics	0	0	2	2	4	1	0	9	4.8
Food & Beverages	1	3	7	8	14	28	1	62	33.2
Pharmaceuticals & Chemicals	2	1	7	13	21	7	0	51	27.3
Non-Metallic	0	2	6	3	10	11	0	32	16.9
Textiles	0	0	2	2	4	3	0	11	5.9
Wood & Furniture	0	0	3	0	1	3	0	7	3.7
Rubber & Plastics	0	0	1	3	3	1	0	8	4.3
Total	**3**	**7**	**29**	**32**	**57**	**58**	**1**	**187**	**100.0**

Source: LMOP field survey, 2012

12.7.2 Total number of staff in the surveyed manufacturing firms from 2001 to 2011

The total number of staff in the surveyed companies increased steadily from 15,731 in 2001 to 28,211 in 2011 (Table 2) at an average of 9% annual growth rate. This would suggest that the manufacturing sector was gradually expanding during the period under review. This view is supported by the consideration that technological advances in recent times would normally reduce, not increase, the human resource requirement of manufacturing firms. This is also generally consistent with international reports that of 4-8% annual growth for economies of some African countries in recent years (UNDP).

Table 2: Total number of staff in the manufacturing sector

Year	2001	2003	2005	2007	2009	2011
Total number of staff	15,731	16,802	18,874	23,083	25,236	28,211

Fig. 10: Total Number of Staff in the Manufacturing Sector: 2001 - 2011
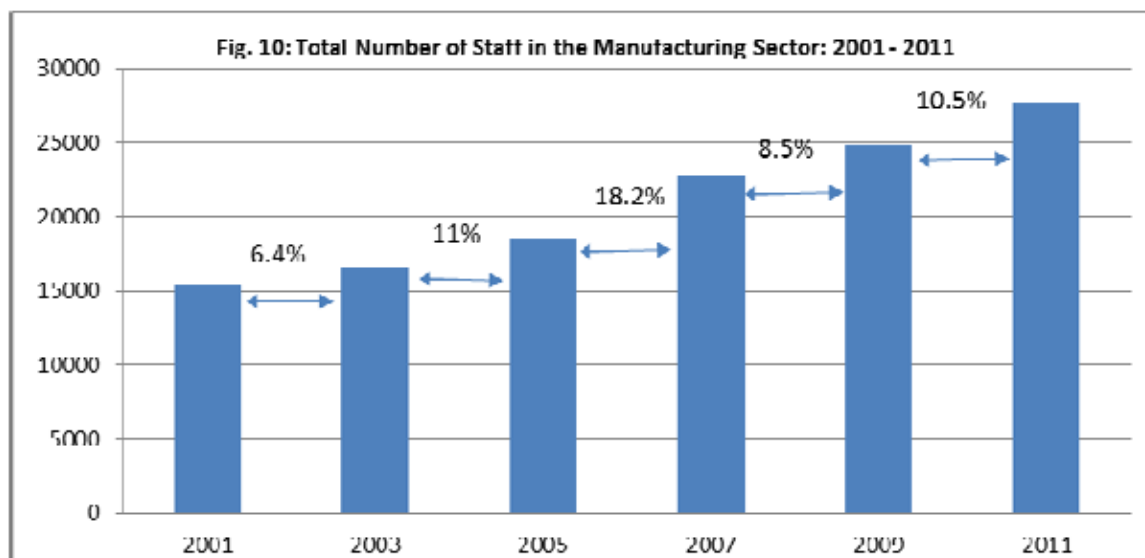
12.7.3 Number of staff in the manufacturing sector by gender: 2001 and 2011

The survey shows that about three quarters of the staff in the manufacturing sector were male. For instance, in 2001 and 2011, the males constituted 79% and 72% of the total number of staff respectively at the surveyed manufacturing concerns (Fig. 11). Although the annual growth in total numbers of staff varied from 7.7% to 13.2% during the period under review, growth in numbers of female staff varied from 11.8% to 20.8%. This would suggest some improvement in female representation amongst the staff of manufacturing companies during the period (Fig. 12 and Table 2). A similar trend is found in gender distribution of staff in the different subsectors except for the Automobile and the Textile and leather products subsectors where the female gender is very poorly represented (Fig. 13). The latter suggests gender bias by females against working in these two subsectors.

Fig. 11: Percentage distribution of staff by gender in the manufacturing sector for 2001 & 2011

Fig. 12: Number of Staff in the Manufacturing Sector by Gender: 2001 - 2011
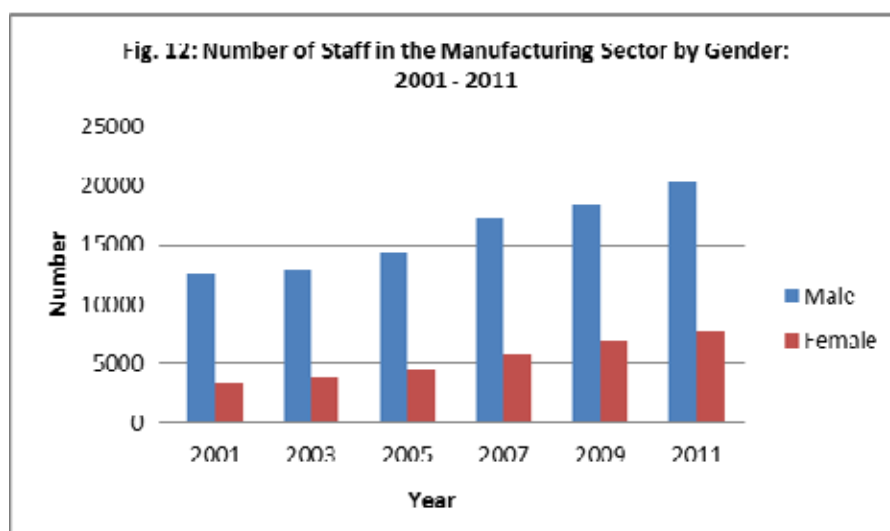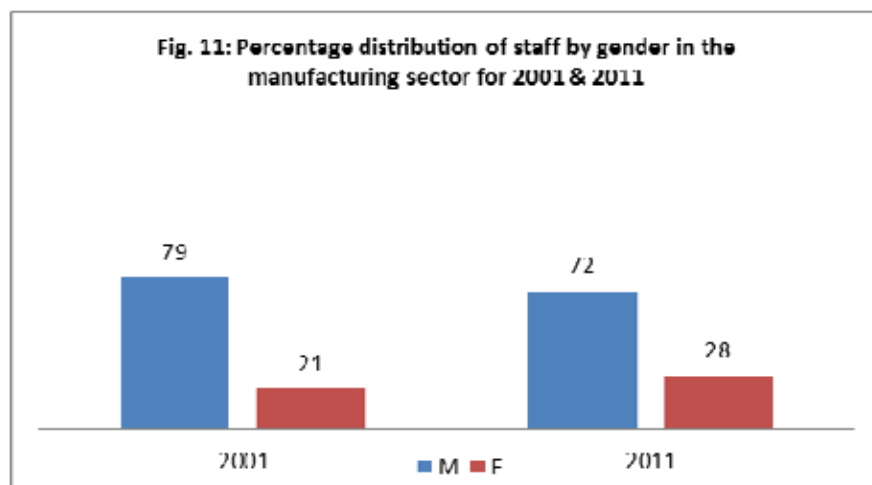
Table 3: Distribution of staff in the manufacturing subsectors by gender

S/No.	Manufacturing Subsector	Number of Staff	
		Male	Female
1	Automobile	482	63
2	Electrical/Electronics	653	336
3	Food and Beverages	6,298	3,176
4	Pharmaceuticals and Chemicals	3,689	1,625
5	Non-metallic Products	3,387	1,652
6	Textiles & Leather Products	4,978	668
7	Wood Products and Furniture	426	123
8	Rubber and Plastic Products	461	194
Total		20,374	7,837

Fig.13: Percentage of Staff in the Manufacturing Sector by Sub-Sector and Gender: 2011
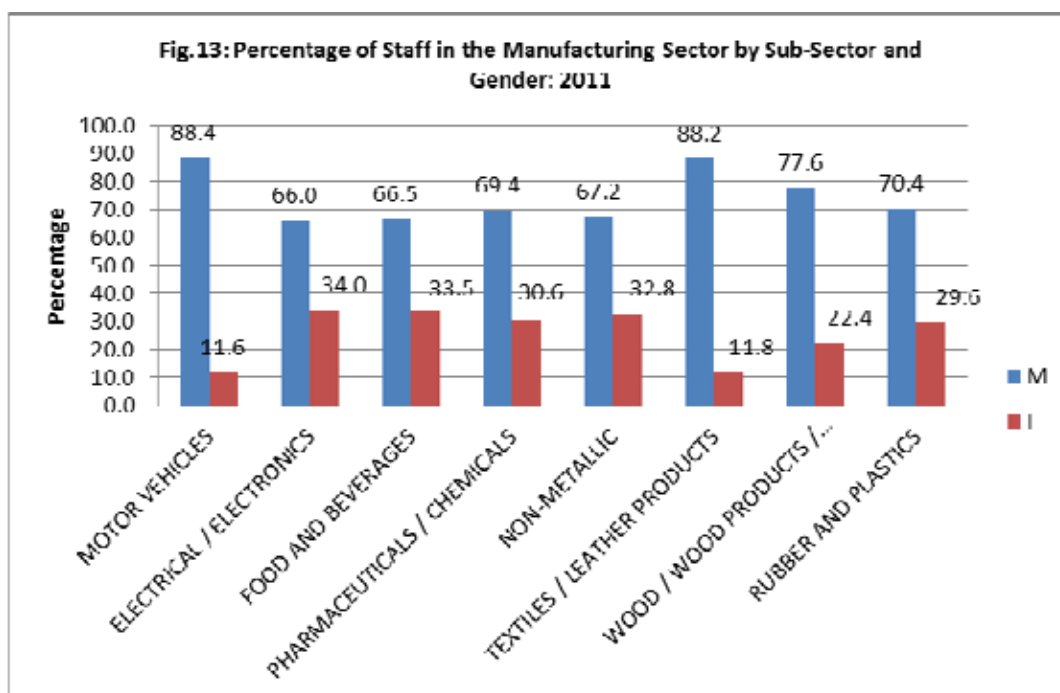
12.7.4 Distribution of staff in the manufacturing sector by manpower level in 2011

The pie chart in Fig. 14 shows distribution of staff by the different levels of manpower. The ILO defines the following manpower levels: High level manpower being managers, engineers, etc.; Middle level manpower being Technologists, technicians, etc.; and Low level manpower being craftsmen, cleaners, labourers, etc. Staff in the Low level manpower category was about two thirds of the total number of staff (67%). About one fifth (18%) of the staff were in the Middle level manpower category whilst the remainder were of high level manpower status (15%). The distribution of staff by manpower level presents a typical pyramidal structure with a blunt tip and a rather wide base.

Fig. 14: Percentage Distribution of Staff in the Manufacturing Sector by Manpower Levels: 2011
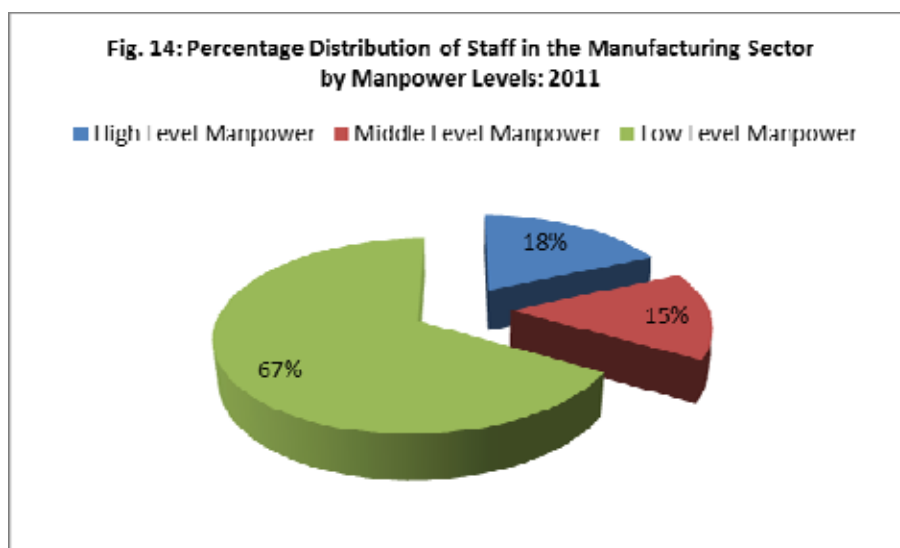
12.7.5 Distribution of staff in the manufacturing sector by occupational group; and by subsectors

a. Staff strength in the different occupational groups

Fig. 15 shows the average annual proportion (i.e. percentage) of staff by occupational group over the ten-year period in the manufacturing sector. It is noted that by far the most populous occupational group (36%) among staff in the manufacturing sector were plant workers/assemblers whilst the least populous were the 'Other professionals' and 'Other associate professionals' groups. Staff in the second most populous group, the cleaners and labourers, was half as many (17%) as those in the plant workers group followed by clerical workers. It is noted that only a very small proportion of staff were engineers (3.7%) and technologists (3.5%). It is observed that, other than the critical plant operators/assemblers, the manufacturing sector was awash with junior support staff who may not contribute significantly to productivity.

Fig.15: Average Percentage of Staff in the Manufacturing Sector by Occupational Group: 2001 - 2011
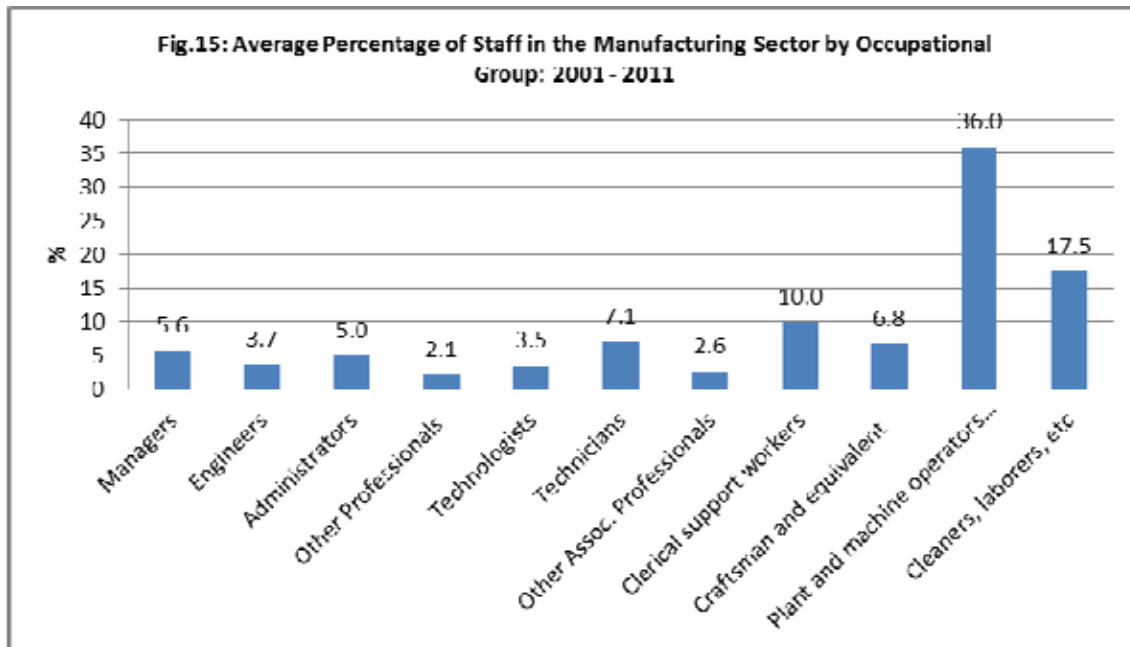
b. Growth in staff strength in the period, 2001 to 2011

Fig. 16 shows the year-to-year trend in the numerical strength of staff in each occupational group for the period 2001 to 2011. But for a slight decline after 2007 in the case of plant and machine workers, there was a general trend of growth in number of staff in each occupational group from year to year over the period. This was consistent with the general trend of growth in the total number of staff during the period under review.

Fig.16: Annual distribution of staff in the manufacturing Sector by occupational group: 2001 - 2011
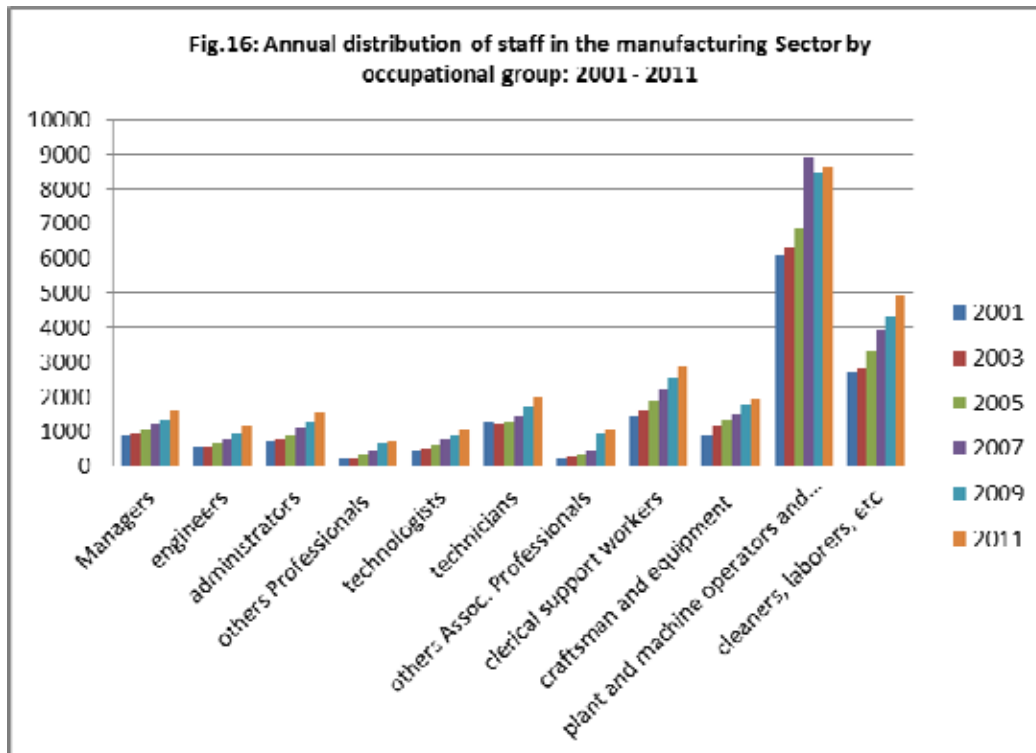
c. Staff strength in the different occupational groups within the manufacturing subsectors

Fig. 17 shows the proportion of staff by occupational group in each of the manufacturing subsectors in Nigeria during 2011. It is worthy of note that plant workers/assemblers were the most numerous occupational group in all the manufacturing subsectors except for the Automobile and Electrical/electronic subsectors. Whereas the most populous occupational group in the Automobile sub-sector was the technicians, the Electrical/electronics sub-sector was curiously dominated numerically by both the plant worker and the clerical support worker occupational groups in equal proportion. The cleaners and labourers were only slightly fewer than the plant workers/assemblers in the Food and beverages subsector. The craftsmen and equivalent occupational group was also relatively well represented in the labour stock in all the manufacturing sub-sectors.

Fig. 17: Percentage of Staff by occupational group in each of the manufacturing subsectors in 2011

	Motor	Elect	Food/Bev	Pharm	Non-M	Textiles	Wood	Rubber
■ Mgrs	13.2	7.2	5.7	10.9	4.3	1.8	5.5	9.8
■ Engrs	5.9	7.4	4.9	4.1	4.8	2.0	2.2	5.6
■ Admins	8.8	7.0	7.4	4.2	6.7	2.4	6.4	6.6
■ Other Pro	8.4	0.3	2.5	3.0	1.7	3.5	0.0	0.2
■ Technologists	1.8	3.0	4.4	4.3	4.8	2.0	0.9	5.8
■ Technicians	18.7	5.9	8.1	4.1	9.0	6.3	6.6	9.8
■ Other Assc Pro	5.7	2.4	5.7	4.3	1.4	2.6	6.2	0.2
■ Clerical	9.4	19.9	13.0	9.6	11.9	4.6	10.4	10.2
■ Craftsmen	2.6	9.6	8.5	4.2	8.6	5.9	1.6	9.2
■ Plant workers	14.5	19.9	20.5	43.2	32.8	41.0	35.9	33.3
■ Cleaners/laborers	11.0	17.4	19.3	8.2	14.0	27.8	24.4	9.5

12.7.6 Educational attainment of staff in the manufacturing sector
a. Distribution of staff by the highest level of formal education

The pie chart in Fig. 18 depicts the percentage distribution of staff by the level of their highest educational qualification. The greater proportion (40%) of staff in the manufacturing sector had secondary school as their highest level of formal education. Only 12% had degree education while 19% had HNDs. These results are reflective of the need of the manufacturing sector for a very high proportion of low level manpower in such occupations as plant workers/assemblers and technicians. There is a clear need to direct policy toward encouraging industry to improve the level of educational attainment and hence the quality of its personnel especially at the lower manpower level for enhanced effectiveness and greater productivity.

Fig. 18: Percentage Distribution of Staff by Highest Level of Education
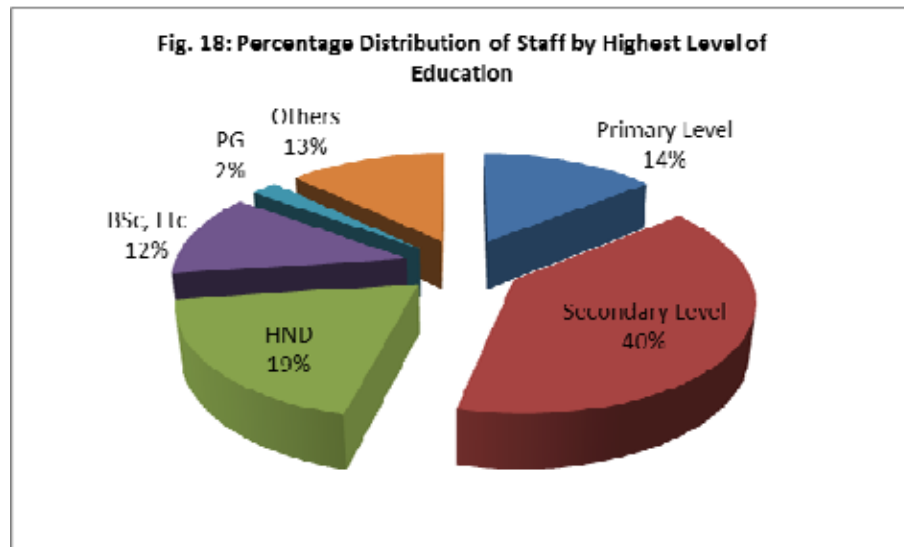
b. Distribution of staff by gender at each level of educational attainment

When the data on highest level of educational attainment by staff in the manufacturing sector was disaggregated by gender for each level of education, a pattern emerged as shown in Fig. 19. About one third of all the staff with HNDs were female. However about 30% of the staff with bachelors degrees; 26% of those with primary education, 25% of those with secondary education and 24% of those with PG degrees were female. Slightly over one third (36.7%) of those staff with qualifications other than these were female. The consistency of the proportion of females at the different levels of educational attainment with that of the overall staff population would suggest a lack of gender bias in educational attainment by the staff in the manufacturing sector in Nigeria.

Fig. 19: Percentage Distribution of Staff by Highest Level of Education and Gender
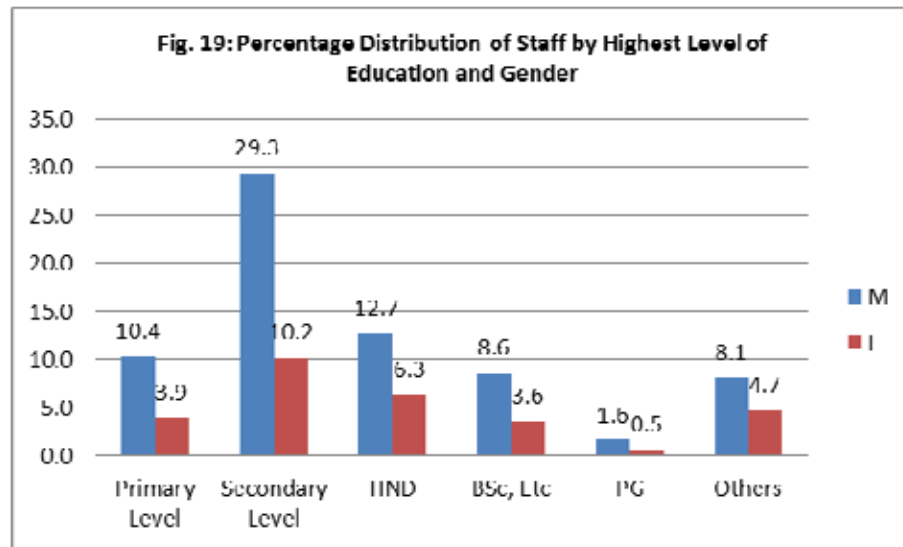
c. Educational attainment of staff within each of the manufacturing subsectors

Fig. 20 shows educational attainment by staff within each of the manufacturing subsectors. Staff whose highest educational attainment was secondary level were more numerous than those with other qualifications in all but the Automobile and the Electrical/Electronics subsectors where HND holders were numerically dominant. Staff with primary level educational attainment were the next most populous in the Pharmaceuticals/Chemicals; Textiles/Leather Products; and Wood and Furniture subsectors. BSc and HND holders were well represented in all the subsectors except for the Textiles; and Wood and Furniture subsectors where they were very few.

Fig. 20: Percentage distribution of staff within each manufacturing subsector by level of education: 2011

	MOTOR	ELECTRICAI	FOOD/BEVERAGES	PHARM/CHEM	NON-METALLIC	TEXTILES	WOOD/FURNITURE	RUBBER/PLASTICS
Primary Level	3.6	16.4	6.8	22.5	5.5	23.2	21.5	5.8
Secondary Level	29.0	25.9	31.7	43.4	35.9	51.8	61.5	29.1
HND	30.6	29.8	26.4	14.8	24.5	6.5	8.1	22.5
BSc, etc	18.1	14.9	14.8	11.6	14.7	5.1	8.7	17.6
PG	2.8	2.8	2.1	3.9	1.7	0.3	0.2	1.9
Others	16.1	10.2	18.1	3.8	17.8	13.1	0.0	23.0

d. Distribution of intermediate & senior staff by the academic disciplines in which they have qualifications

Fig. 21 shows, in descending order, the distribution of intermediate and senior staff by the disciplines in which they have qualifications. The greatest proportion of the staff had qualifications (at all levels of education) in Engineering Sciences (20.9%) and Management Sciences (20.6%). These were followed by Social Sciences (18%) and the Sciences (17.3%). The percentage of staff with qualifications in the Environmental Sciences, Agriculture and Arts were approximately between one quarter and half of those for the qualifications with highest representation. As shown in Fig. 22, slightly over half of the staff had qualifications in the sciences whilst the remainder had humanities-based qualifications. When viewed on sub-sector basis as in Fig. 23, it is evident that a greater proportion of staff had science-based qualifications in all except the Automobile subsector where almost two-thirds were arts-based and the Pharmaceuticals subsector where there were as many staff with arts-based as there were those with science-based qualifications.

Fig. 21: Percentage Distribution of Intermediate/ Senior Staff by academic discipline of their Qualification in the Manufacturing Sector
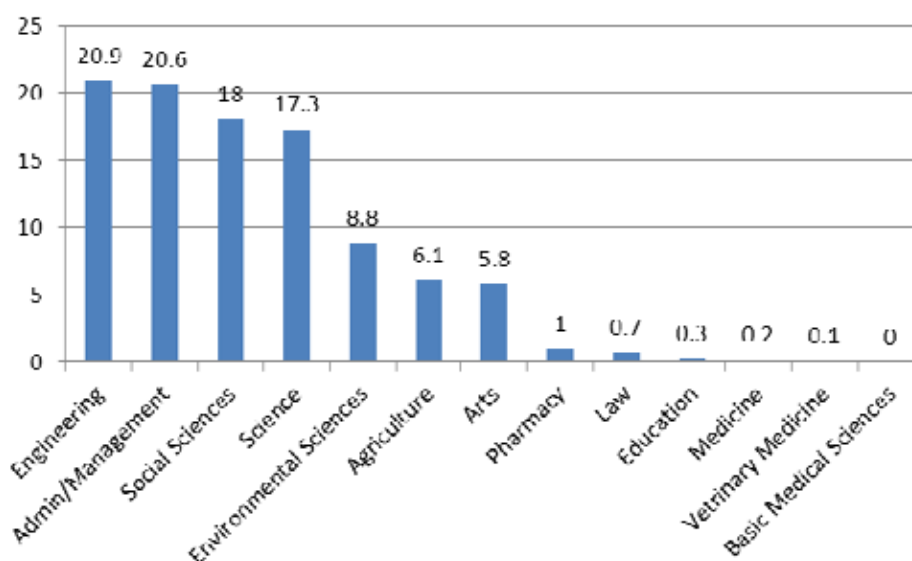
Fig. 22: Distribution of Intermidiate/ Senior Staff by Science/ Arts qualification

Arts Based Disciplines 46%

Science Based Disciplines 54%

Fig. 23: Percentage Distribution of Intermediate/Senior staff by Arts/Science qualification within each sub-sector
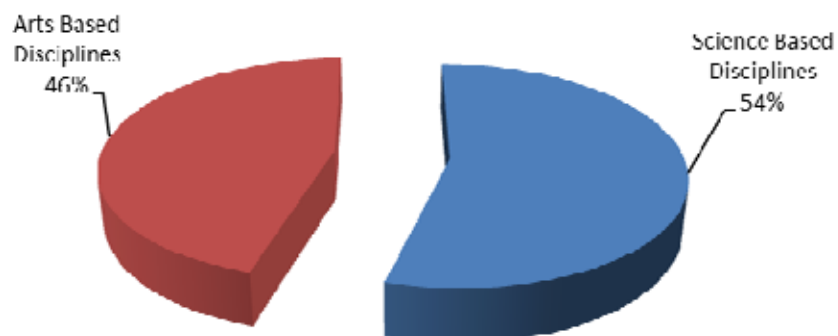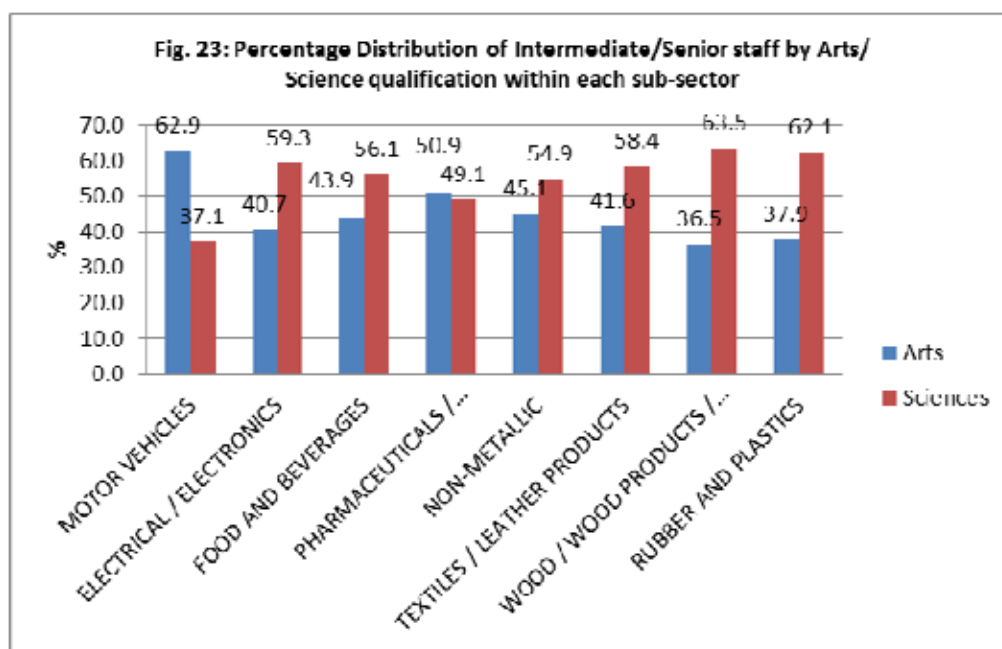
e. Distribution of intermediate & senior staff by gender within the academic disciplines of their qualifications

Fig. 24 shows distribution of intermediate and senior staff by gender within each of the academic disciplines in which they have qualifications. Over half of the intermediate and senior staff with qualifications in the Management Sciences, the Sciences and the Social Sciences were female. With regard to those with qualifications in the Engineering Sciences, however, only about a quarter of the staff were female. The proportion of male and female staff with Environmental Sciences qualifications was the same.

Fig. 24: Percentage Distribution of Intermediate/ Senior Staff by gender within each discipline of their qualification

	Admin/Mgt	Agric	Arts	BMS	Educ	Engr	Env Sc	Law	Med	Pharm	Science	Soc Sc	Vet Med
M	12.8	4.0	3.6	0.0	0.2	17.0	4.4	0.5	0.1	0.6	11.6	11.9	0.1
F	7.8	2.1	2.2	0.0	0.1	3.9	4.4	0.1	0.2	0.4	5.7	6.1	0.0
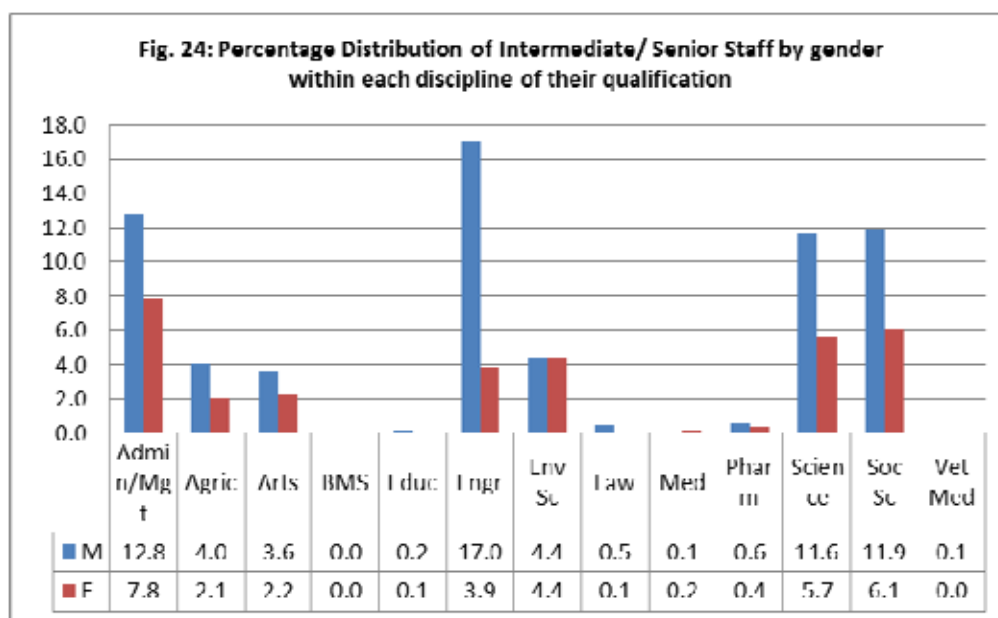
12.7.7 Job vacancies in the manufacturing sector

a. Distribution of vacancies by occupational groups in the manufacturing sector

The bar and pie charts in Figs. 25 and 26 show that the occupational groups in the low manpower level of the manufacturing sector from Clerical support workers through Craftsmen and Plant/machine operators to Cleaners and labourers had generally high proportion of vacancies (60%). Two occupational groups at that level, i.e. the Cleaners/labourers and Plant workers/assemblers, had the highest vacancies followed in descending order by Clerical support workers, Technicians, Craftsmen/equivalents, Administrators, Engineers, Technologists, and Managers. Whereas the high share of existing vacancies being in the Plant workers/assemblers occupational group may be related to shortages in the supply of job seekers with the relevant skills, such vacancies for the Cleaner/Labourer occupational group may be the result of deliberate cost saving measures.

Fig. 25: Percentage Distribution of Vacancies by Occupational Group in the Manufacturing Sector

Fig. 26: Percentage Distribution of Vacancies in the Manufacturing Sector by manpower level
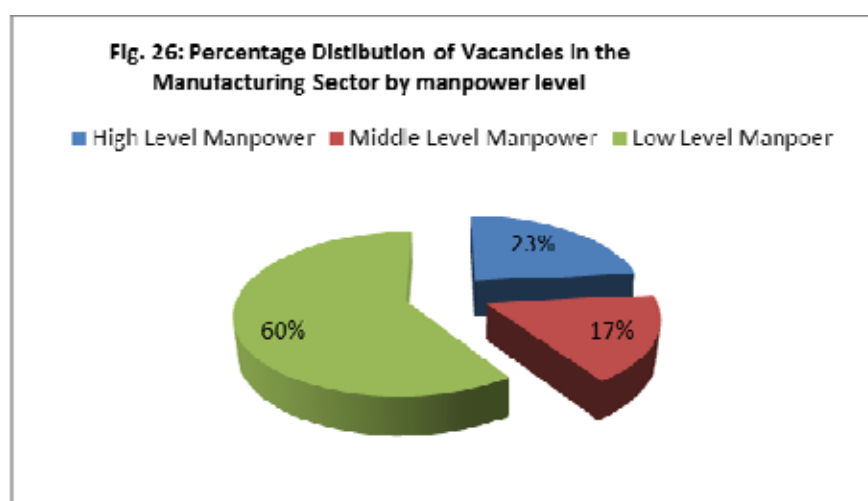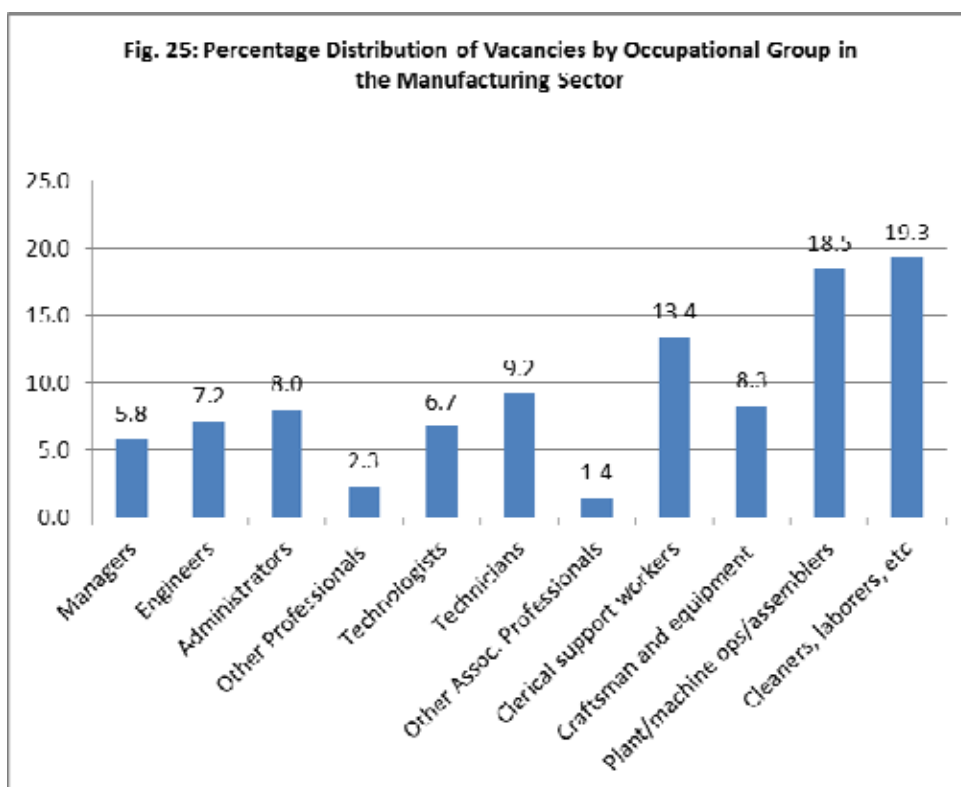
b. Job vacancies in the manufacturing sector by subsector

When the job vacancies are expressed as a percentage of the current labour stock for each of the subsectors of the manufacturing sector as shown in Fig. 27, it emerges that the Food and beverages subsector has the highest job vacancies at 49.3% of the existing labour stock followed by the Non-metallic products subsector with 24%. The

remaining subsectors declared very low proportion of vacancies to existing labour stock from 0.6 to 11%.

Fig. 27: Job Vacancies in each Manufacturing Sub-Sector as percentage of the labour stock in 2011
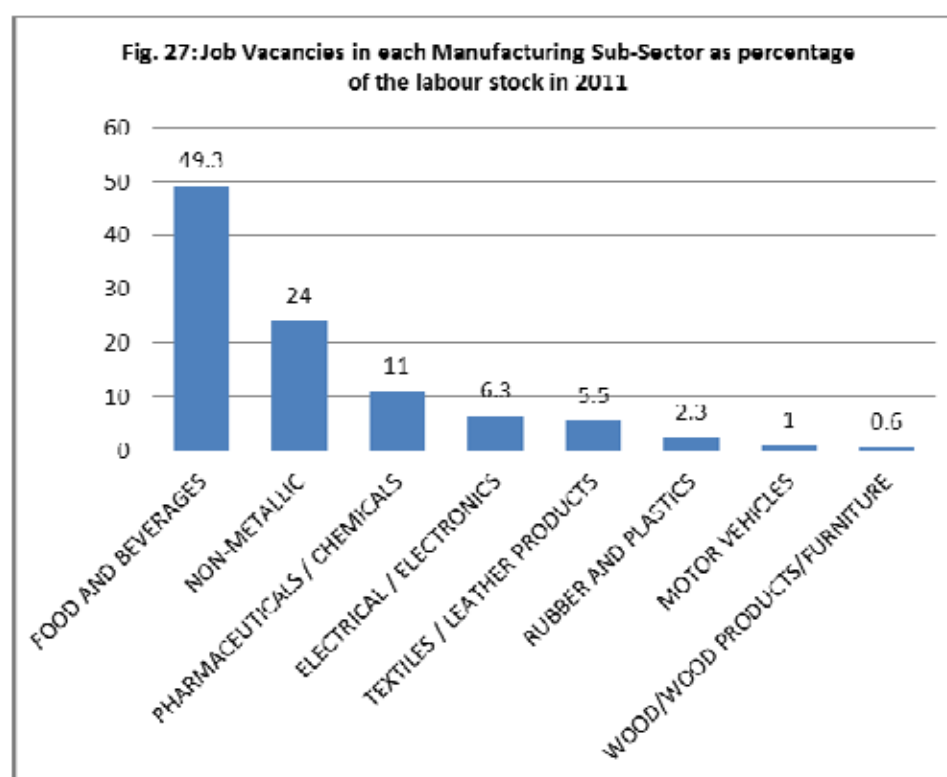
12.7.8 Graduate competencies in the manufacturing sector

Asked to rate the graduates in their employment for their competencies in a mix of work-related skills, most respondents (36.7% & 32.9%) in the manufacturing sector rated the graduates as very good or good respectively (Table 4). The next highest frequency of responses were those who rated the graduates as excellent (14.4%); these were followed closely by those who rated the graduates as average (13.3%). Very few respondents (2.3% and 0.4% respectively) rated the graduates in their employment as poor or very poor. As is evident in Fig. 28, the trend of competence of graduate staff in the individual skills was generally similar to that for their overall competence. In the case of ICT skills, however, 36.3% of respondents perceived the graduates as only average even though a larger proportion (48.8%) perceived them as either very good or good. This result would suggest that graduates of Nigerian universities

52

are generally perceived by the manufacturing industry in the country as competent in work related skills. It may be recalled that a 1999 survey by Dabalen et al. (2001) found very poor employer perception of the competence of graduates of Nigerian universities in their employ. It is clearly evident in the present work that this has now considerably changed.

Table 4: Frequencies of ratings for graduate competence in work related skills

Nature of Skill	Excellent	Very Good	Good	Average	Poor	Very Poor
Communication	30	69	68	12	0	0
Technical	27	89	45	13	3	0
Analytical	25	57	75	20	1	1
Team working	39	86	36	17	2	0
Problem Solving	22	69	66	18	4	1
Multi-tasking	20	53	77	20	5	1
Managerial	31	72	51	21	3	0
ICT	8	35	47	61	15	2
Others	9	7	17	12	1	0
TOTAL	211	537	482	194	34	5

Source: LMOP field survey, 2012

Fig. 28: Percentage Distribution of employer ratings of Graduate Competencies in each work-related skill

	Others	ICT	Managerial	Multi tasking	Problem Solving	Team working	Analytical	Technical	Communication
Excellent	19.6	4.8	17.4	11.4	12.2	21.7	14.0	15.3	16.8
Very Good	15.2	20.8	40.4	30.1	38.3	47.8	31.8	50.3	38.5
Good	37.0	28.0	28.7	43.8	36.7	20.0	41.9	25.4	38.0
Average	26.1	36.3	11.8	11.4	10.0	9.4	11.2	7.3	6.7
Poor	2.2	8.9	1.7	2.8	2.2	1.1	0.6	1.7	0.0
Very Poor	0.0	1.2	0.0	0.6	0.6	0.0	0.6	0.0	0.0

54

12.7.9 Average monthly earnings by occupational group in the Non-metallic sub-sector in 2011

Figs. 29 which depicts the average monthly earnings by occupational group shows that the managers earned the highest monthly wages of about ₦125,843 monthly followed by the Engineers (₦94,370), Other professionals (₦62,543) and Administrators (₦62,510). The Technicians and Technologists earned ₦60,000 and ₦52,000 respectively. All the remaining occupational groups earned lower than ₦50,000 monthly wages.

Fig. 29: Average Monthly Earnings by Occupational Group in the Manufacturing Sector

	Mgrs	Engrs	Admin	Other Pro	technologists	technicians	Other Ass Pro	Clerical	Craftsmen	Plant workers	cleaners/laborers
Series1	125,843	94,370	62,510	62,543	60,629	52,743	48,550	24,801	25,313	30,560	17,183
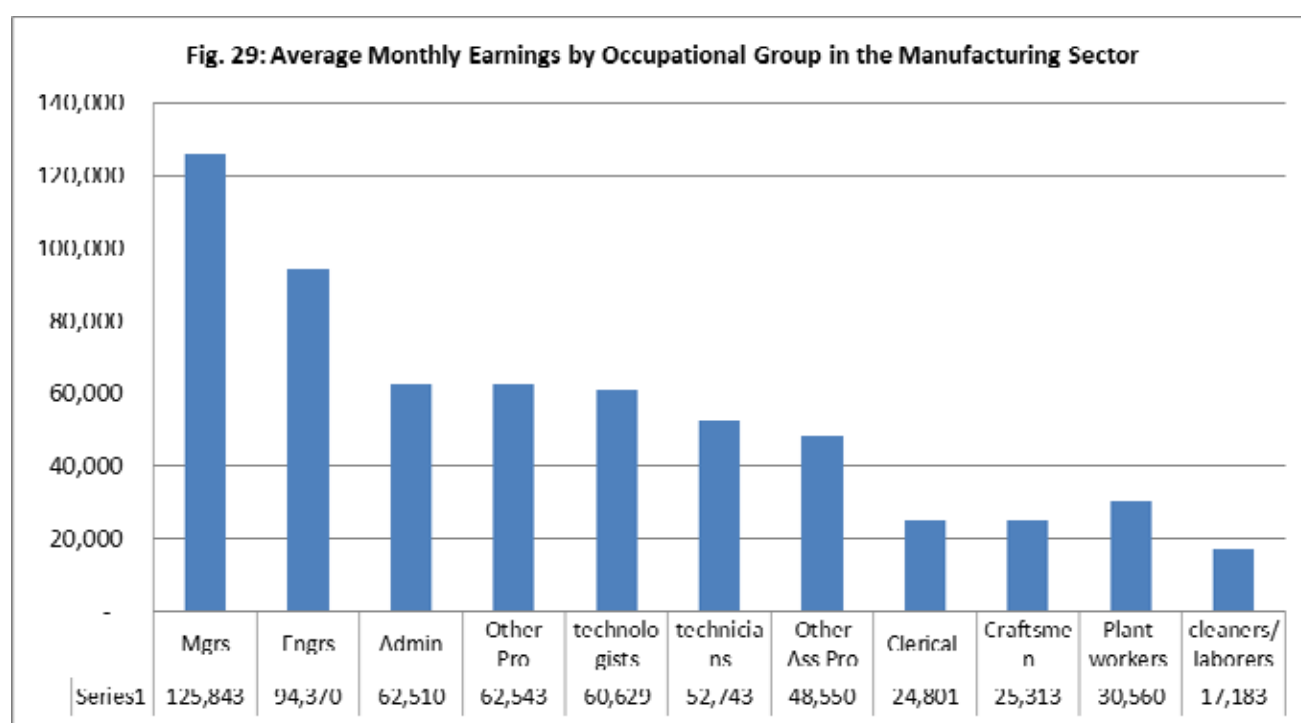
The distribution of the volume of monthly wages among the High, Middle and Low manpower levels shown in Fig 30 indicates that 57% of monthly wages goes to the staff in the high level manpower while staff in the middle and low level manpower groups receive 27% and 16% of total monthly wages respectively. Table 5 shows that the distribution of wages amongst the occupational groups follows the same trend as that for the entire manufacturing sector.

Fig. 30: Percentage Distribution of Monthly Earnings in the Manufacturing Sector by Manpower Level
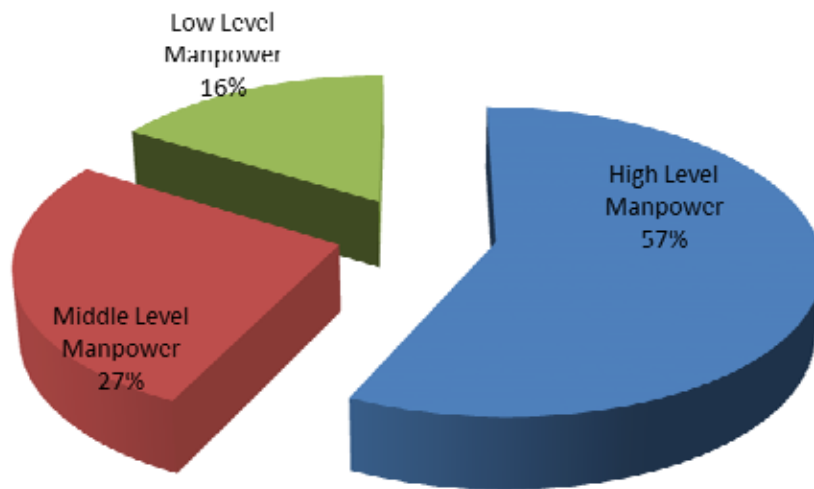
Table 5: Monthly earnings of staff in the manufacturing subsectors by occupational group: 2011

	Motor Vehicle	Electrical/ Electronics	Food & Beverages	Pharm/ Chemicals	Non-Metallic	Textiles	Wood/ Furniture	Rubber/ Plastics
Managers	131,200	90,000	165,436	89,842	135,269	100000	70000	225,000
Engineers	90,750	100,286	99,706	90,262	91,955	150000	60000	72,000
Administrators	68,000	61,875	65,588	62,360	77,750	40000	0	62,000
Other Professionals	72,000	48,000	84,942	73,000	71,857	30000	0	58,000
Technologists	89,800	48,250	60,698	54,524	75,500	0	35000	0
Technicians	72,000	33,500	62,098	47,619	48,500	0	0	0
Other Assoc. Professionals	0	0	52,700	45,000	46,500	0	0	50,000
Clerical support workers	32,500	26,625	25,885	22,171	31,425	0	17000	18,000
Craftsman and equivalent	22,000	21,000	30,879	24,500	37,500	0	0	16,000
Plant and machine operators and assemblers	52,528	30,000	37,258	25,103	30,033	0	14000	25,000
Cleaners, labourers, etc.	31,667	16,333	24,157	17,808	23,500	3000	8000	13,000

Source: LMOP field survey, 2012

12.7.10 Training needs of and Mode of training for the manufacturing sector

Asked whether their managements identify training needs of their staff, most manufacturing companies (76%) responded in the affirmative. On the frequency of staff training, many respondents (47%) indicated that they conducted staff training annually; many others (42%) indicated that they did so only occasionally; whilst 11% indicated that they employed other training regimes. Further asked what methods they employed in staff training, slightly less than half of the manufacturing firms surveyed (46%) indicated that they conducted staff development by on-the-job training; whilst 16% engaged in in-plant training; 8% did so through out-of-plant training; and 30% trained their staff using a mix of these methods (Figs. 31 to 33).

Fig. 31: Percentage distribution of responses on whether (Yes) or not (No) employers identify training needs of staff

No
24%

Yes
76%
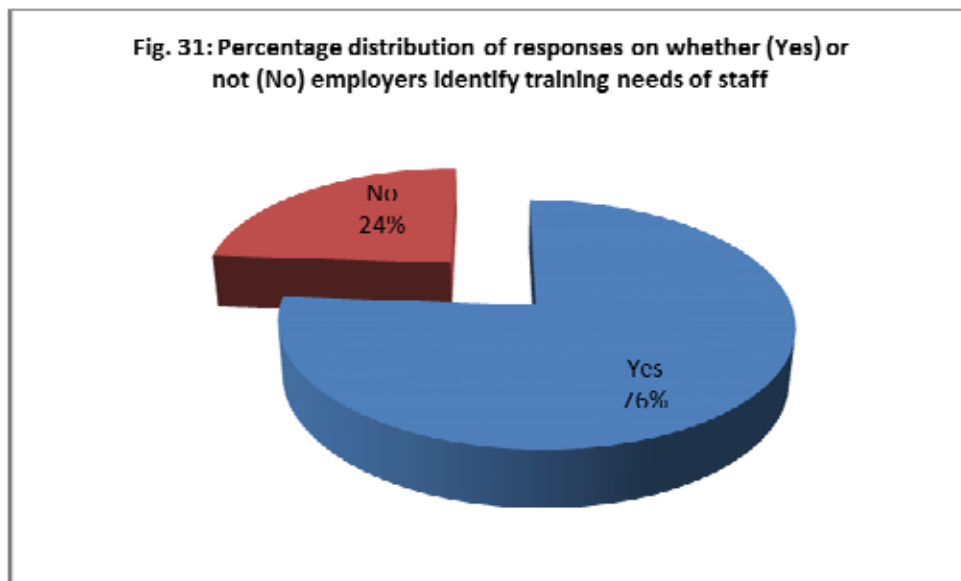
Fig. 32: Frequency of Identifying training needs of Staff In the Manufacturing Sector
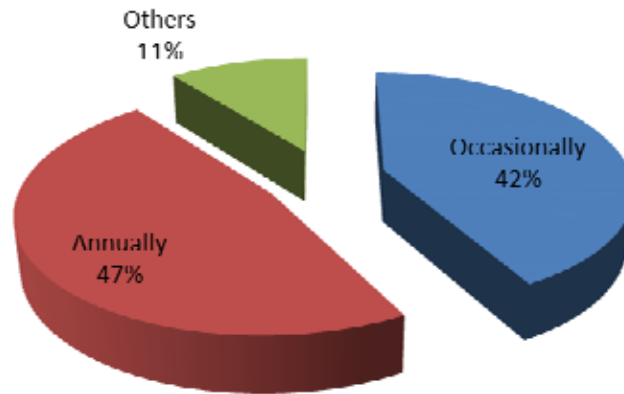
Fig. 33: Mode of staff training adopted by Organisations In the Manufacturing Sector
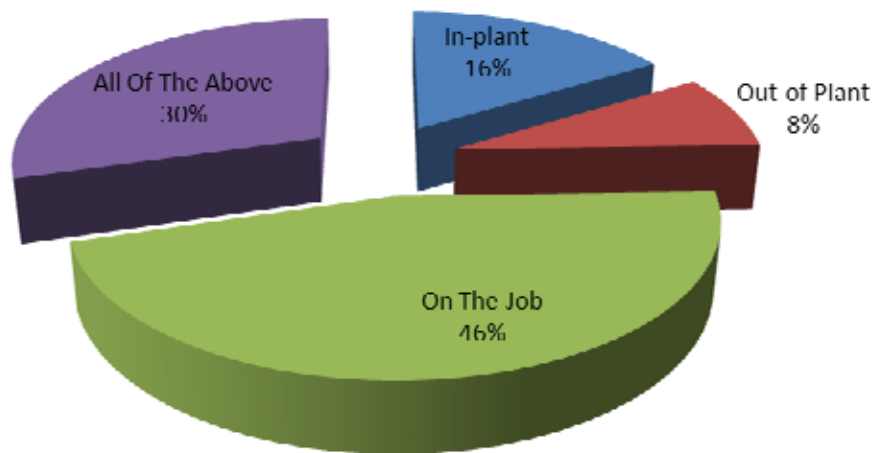
On the open ended question requesting that respondents indicate the training needs of their staff, manufacturers listed the following:

1) Information and Communications Technology
2) Team building and team work

3) Strategic Business Support

4) Time/Man hour management

5) Technical Support/Customer Service

6) Advanced Mechanical Skills

7) Security Management/Industrial Safety

8) Managerial Communication

9) Productivity Enhancement

10) Functional/Organizational Management

11) Auto Mechanic Diagnostics

12) Crises Management/Arbitration

13) Occupational/Environment Health and Safety Measures

14) Sales and Marketing

15) Equipment Maintenance and Fabrication

16) Project Management

17) Mining Safety

18) Accounting and Financial Management

19) Problem Solving Skills

20) Professional Ethics

21) Industrial Production Management

22) Human Resources

23) Laboratory Safety

24) Industrial Relations

25) Waste Management

26) Inventory Management

27) Risk Management

28) Leadership Skills

29) Baking Technology

30) Food Technology and Dietetics

31) Relationship Management

12.7.11 Staffing for 2001 - 2011 and Staff projections for 2013 - 2017

The actual labour stock for the manufacturing sector from 2001 to 2011 and the projected figures from 2013 to 2017 are shown in Fig. 34. There is a trend of growth in the actual numbers of staff from 2001 to 2011. Surprisingly, however, the projected figures for 2013 (14,608) represent expectation of a sudden drop in the labour stock from the existing staff complement (27,643) in 2011. Thereafter, the projected labour stock shows a trend of gradual growth to peak at 22,002 in 2017. Although it is not clear just why firms in the manufacturing sector would forecast a 50% drop in numbers from their 2011 staff complement in two years, this and the generally lower range of projected staff numbers may be a reflection of pessimism on the part of the respondents about performance of the economy in the medium term. This is supported by written comment by some of the surveyed firms that attributed their unwillingness to complete this part of the questionnaire to what they termed the "bad economy" consequent upon which they were considering closing down their operations unless the economy improves.

Disaggregation of projected numbers of staff in the manufacturing sector by subsector (Fig. 35) shows that a similar trend is presented for these subsectors as is the case for the total labour stock.

Fig. 34: Comparison of Actual Number of Staff from 2001 - 2011 with Projected Staff from 2013 - 2017

	2001	2003	2005	2007	2009	2011	2013	2014	2015	2016	2017
Number	15452	16514	18572	22772	24834	27643	14608	15594	17365	19285	22002

Fig. 35: Projected numbers of Staff by subsector from 2013 - 2017
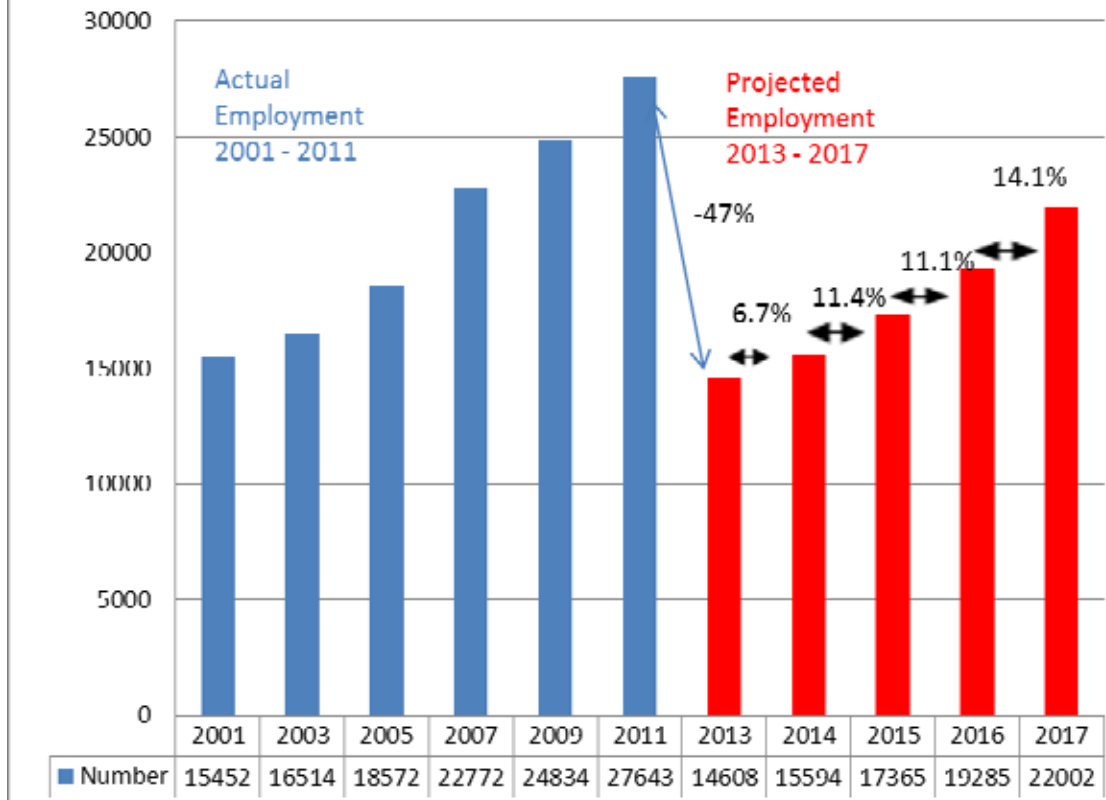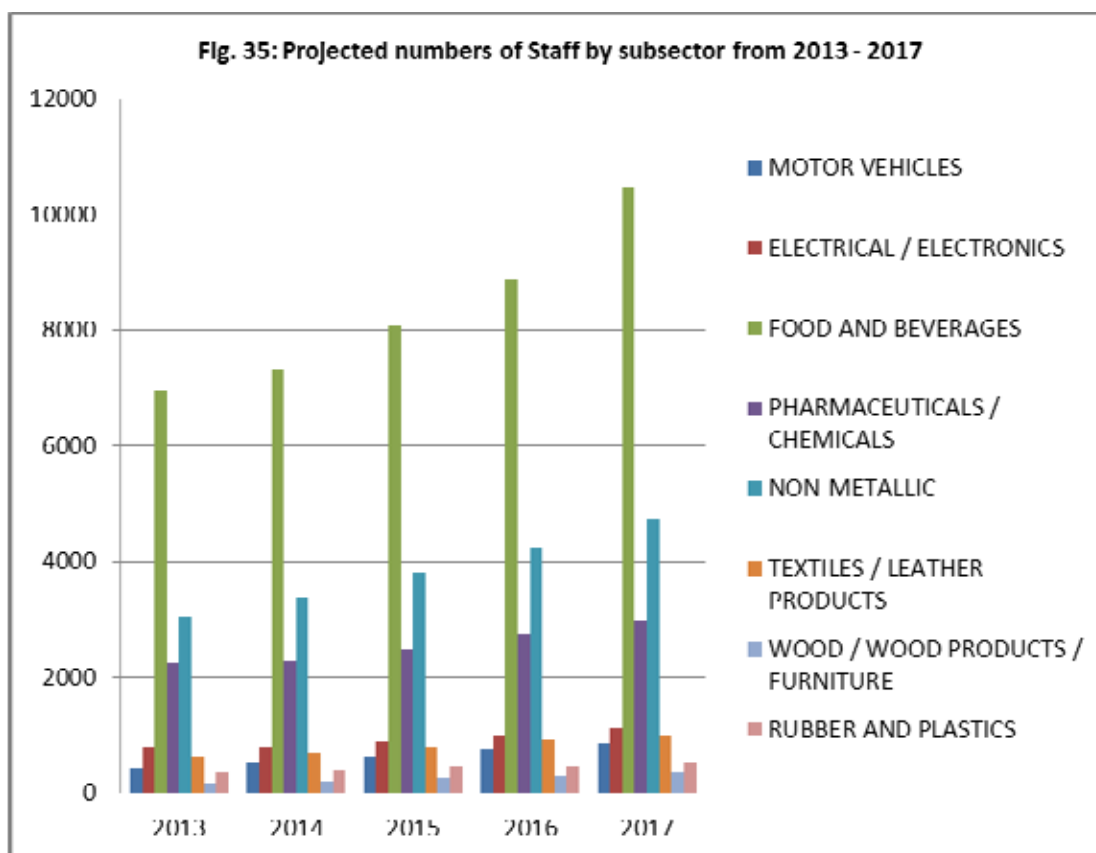
12.7.12 Average number of hours worked per day by occupational group of employees for each sub-sector in the manufacturing sector

The standard daily work time for the Nigerian manufacturing sector is eight hours per day. However actual hours worked per day do vary. For instance, in the Automobile sub-sector, all occupational groups worked an average of 7.7 to 8.7 hours per day (Table 6 and Fig. 36). In the case of the Electrical/Electronics subsector, the range was from 8.2h for Technologists to 9.1h for Technicians. For the Food and Beverages sub-sector, hours worked per day ranged from 8.1h for Craftsmen to 8.8h for Engineers. In the Pharmaceuticals and Chemicals sub-sector, daily work hours ranged from 8.1h for Clerical support workers and Cleaners/labourers to 8.6h for Plant workers/Assemblers. In the Non-metallic sub-sector, the number of hours worked per day ranged from 8.1h for Craftsmen to 8.5 for Other Professionals and Associate professionals.

Daily work hours for the Textiles and Leather subsector ranged from 8.4h for Craftsmen to 9.2h for Engineers, Associate professionals and Plant workers. In the case of Wood products and furniture sub-sector, the range of daily work hours among different occupational groups was from 7.8h for Craftsmen to 9.0h for Technologists. Finally, the daily hours worked in the Rubber and Plastics sub-sector were in the range from 8.0h for Engineers and Technologists to 9.0h for Other Professionals and Associate Professionals. Thus generally staff in the manufacturing sector worked for between 7.7 and 9 hours per day during the period under review.

Fig. 36: Average Hours Worked Per Day by Employees in the Manufacturing Sector
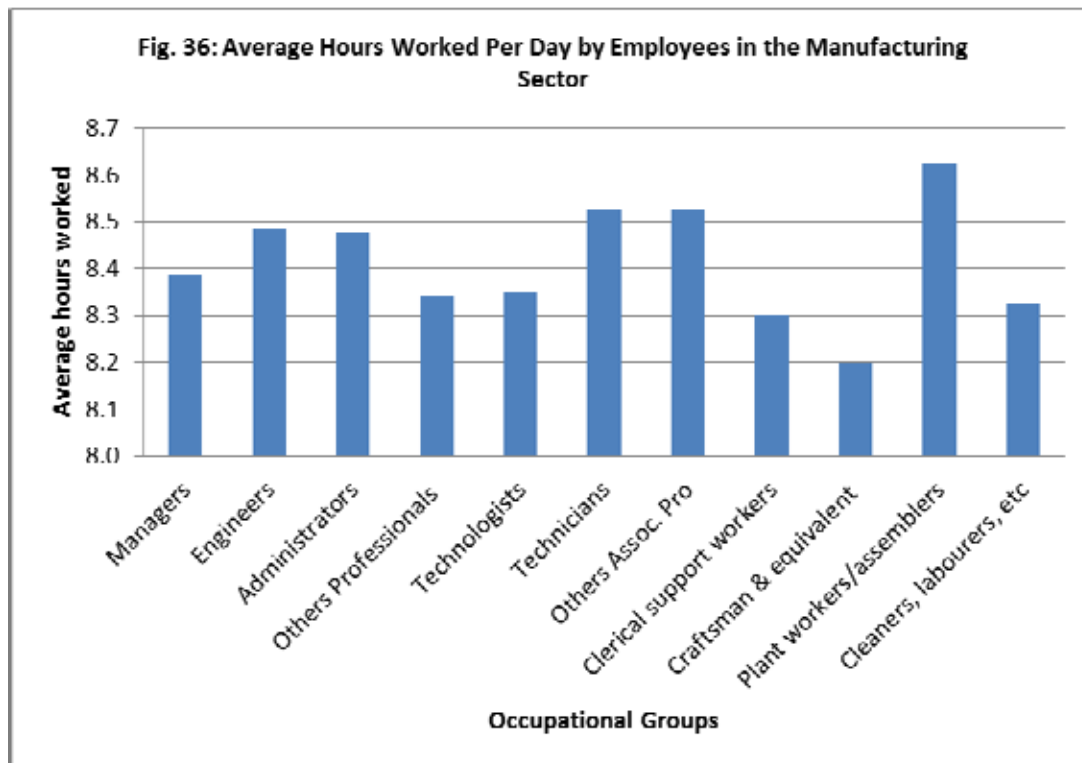
Table 6: Hours worked per day by staff in the different manufacturing subsectors by occupational group

Occupational Group	Motor Vehicles	Electrical	Food/ Bev	Pharm/ Chem.	Non-Metallic	Textile	Wood /Furn.	Rubber /Plastics.
Managers	8.1	8.4	8.4	8.4	8.3	8.8	8.3	8.4
Engineers	8.1	8.7	8.8	8.4	8.2	9.2	8.5	8.0
Administrators	8.1	8.5	8.5	8.3	8.3	9.0	8.8	8.3
Others Professionals	8.2	8.3	8.2	8.2	8.5	8.0	0.0	9.0
Technologists	8.2	8.2	8.5	8.2	8.2	8.5	9.0	8.0
Technicians	8.1	9.1	8.5	8.5	8.2	9.1	8.4	8.3
Others Assoc. Pro	8.2	8.3	8.7	8.3	8.5	9.2	8.0	9.0
Clerical support workers	7.8	8.4	8.3	8.1	8.2	8.5	8.3	8.8
Craftsman & equivalent	8.3	8.3	8.1	8.3	8.1	8.4	7.8	8.3
Plant workers/assemblers	8.7	8.7	8.6	8.6	8.3	9.2	8.3	8.6
Cleaners, labourers, etc.	7.7	8.6	8.3	8.1	8.2	9.1	8.3	8.3

Source: LMOP field survey, 2012

12.7.13 Staff unions in the manufacturing sector

Asked to list the trade unions to which their staff were affiliated, respondents indicated that their workers were registered with either the Nigeria Labour Congress (NLC) or the Trade Union Congress of Nigeria (TUC). Fig. 37 shows that the staff in 58 (60%) of the responding firms were affiliated with the NLC whilst the remaining 38 (40%) were registered with the TUC.

Fig. 37: Percentage Distribution of Organizations by their affiliated Trade Unions
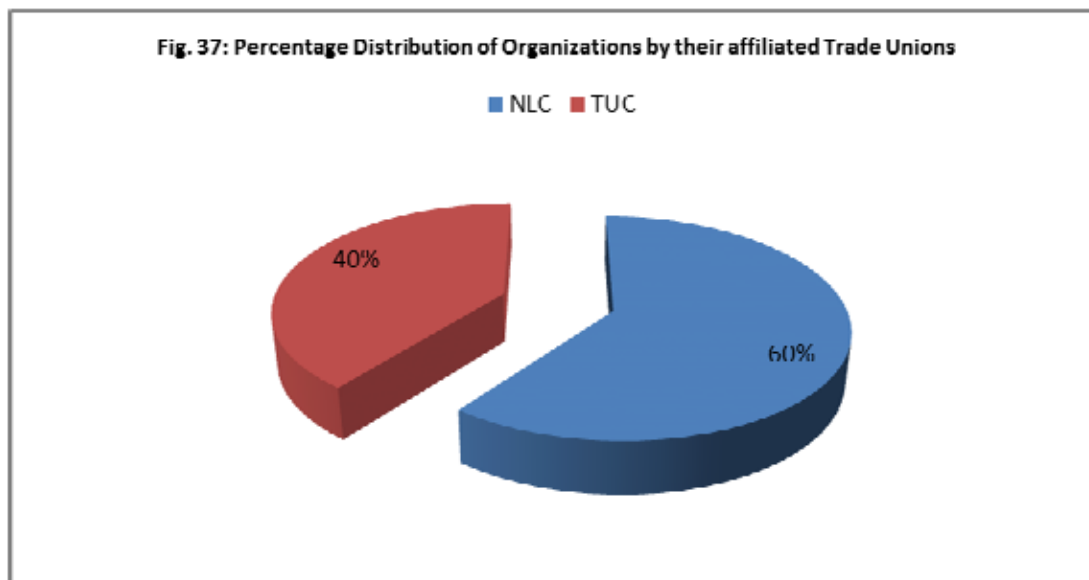
7.8 Policy Implication of Findings

The data and information gleaned from the survey of labour market information from the Nigerian manufacturing sector may be utilized by policy makers and policy implementers alike whose operational ambit relates to human resource development and utilization. In the education sector for example, information on the different academic disciplines in which the current labour stock (existing staff) have qualifications and the qualification requirement for the existing job vacancies could inform the development of programmes for the production of human resources targeted at meeting the needs of the manufacturing sector. Labour planners and indeed job seekers would be interested in the quantum and nature of current vacancies in the manufacturing sector. The Federal Ministry of Labour and Productivity would be interested not only in job vacancies but also in the data relating to union behaviour of staff of the manufacturing sector.

The absorptive capacity of the entire manufacturing sector could be extrapolated from data obtained here for use in national planning by the education and other sectors. The science/arts ratio of senior staff of the

manufacturing sector could also provide input for determination of science/arts enrolment ratios at Nigerian tertiary institutions by the regulatory authorities. It is clear therefore that educational institutions, training organisations and other human resource development concerns would be interested in the data generated by this study. This analysis is by no means exhaustive, being that economic sectors are necessarily interconnected and therefore the data from this survey is expected to have something for everyone who may be involved in planning, producing or using human resources.

8. RECOMMENDATIONS

Consequent upon the experience gained with setting up a labour market observatory for Nigeria and collecting the first set of labour market data and information for the manufacturing sector, the Labour Market Observatory Project hereby recommends that:

a. NUC publish the data from the pilot survey as a compendium of Labour Market Information on the Nigerian manufacturing sector for 2012;

b. The NUC strengthen the LMO Unit and further support it to enable it expand coverage of its LMI gathering activity to all sectors of the economy on a sustained annual basis;

c. The NUC effect training at internationally accredited programmes and study tours (to both first and third world countries with successful LMOs) for its relevant personnel to build the capacity it needs to effectively run and maintain the LMO and the national LMIS;

d. The Federal Government of Nigeria create a budget line for LMIS and make adequate and regular budgetary provision to empower the NUC's LMO to discharge its mandate to harvest, process and disseminate labour market information on all sectors of the Nigerian economy;

e. All public and private sector stakeholder organizations continue to support, cooperate and collaborate with the NUC to enable the LMO at NUC discharge its functions effectively and creditably;

f. NUC do a medium- and long-term strategic plan for the LMO and Nigeria LMIS; the LMO should, in the interim, develop vision and mission statements; and

g. The LMO Unit at NUC utilize all the human and material resources available to it to ensure availability of copious, timely and regular supply of labour market information on all sectors of the economy to all that seek it.

9. CONCLUSION

The Nigeria Labour Market Observatory Project has successfully: (i) caused the National Universities Commission to create a Labour Market Observatory (LMO) Unit with domicile at its secretariat in Abuja; (ii) established a national Labour Market Information System with the LMO Unit as secretariat; (iii) put in place a National Steering Committee on LMIS to provide policy advice; (iv) established a National Technical Committee on LMIS to provide technical advice to the LMIS programme; (v) procured a proprietary LMI software, COLMIS, which it used in its pilot survey; (vi) conducted a pilot survey by which it collected, handled and processed LMI from the Nigerian manufacturing sector and also produced reports as an exemplar from which the nascent LMO and LMIS would take a cue at the end of the two-year life of the LMOP; and (vii) mobilized support amongst key stakeholders for the LMIS which had already paid off when NUC worked very closely with Manufacturers Association of Nigeria, NACCIMA and others in the pilot study.

For any country's development effort to be successful, it must be preceded by careful planning. Planning requires timely and reliable information. Human capital is the single most important input to development. This underscores the need for careful national plans for development of the human capacity needed for national development. The labour market observatory and labour market information system developed through the Labour Market Observatory Project will no doubt provide the information needed for making the right choices for

the Nigerian education system to enable it contribute appropriately to developing the human capacity needed for the often touted imminent economic take off of Nigeria. The challenge to the National Universities Commission and the Federal Government is to find the funds to meet the relatively heavy financial requirements for expanding the scope of the LMIS to cover all the sectors of the economy and to sustain the LMO from year to year. The LMOP believes that, with the enormous benefits derivable from availability of the baseline human resource information at the LMO for more informed and assured institutional, organisational and national development plans, Nigeria should be able to muster the will to find the funds to sustain the national Labour Market Observatory and the Labour Market Information System.

10. ACKNOWLEDGEMENTS

The Labour Market Observatory Team is grateful first to the National Universities Commission for conceiving and carrying out the LMOP and also for giving members the opportunity to serve. The Team wishes to thank the Federal Government for approving the Project. Appreciation also goes to the World Bank for approving the loan facility to finance the Project. The Project greatly benefitted from the support, cooperation and collaboration of various stakeholders, in particular the Manufacturers Association of Nigeria (MAN) and the National Association of Chambers of Commerce, Industry, Mines and Agriculture (NACCIMA) and other stakeholder organizations for which it is grateful.

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12. APPENDICES

12.1 Appendix 1: KEY INDICATORS OF THE LABOUR MARKET BY INTERNATIONAL LABOUR ORGANISATION

12.1.1 KILM1: Labour force participation rate (LFPR)

LFPR is the proportion of a country's working-age population that engages actively in the labour market either by working or looking for work. LFPR is calculated by expressing number of persons in the labour force as a percentage of working-age population. Working-age population is all who are of a certain age, typically 15 years or more. LFPR may be broken down by gender and age to give a profile of the economically active population.

12.1.2 KILM2: Employment-to-population ratio (EPR):

EPR is the proportion of a country's working-age population that is employed. EPR provides information on the ability of an economy to create employment. EPR may be differentiated into Youth and Adult employment-to-population ratios, i.e. the proportion of working-age youth (15-24 years) and adults (25 years and above) that are employed. EPR may also be broken down by gender because this indicator has gender bias in excluding unpaid work mostly by women in the home.

12.1.3 KILM 3: Status in employment (SIE):

SIE has two facets. It is derived as employment by (a) *Wage and salaried workers*; and (b) *Self-employed workers*; expressed as a percentage of total employment. Self-employed workers may be broken down to those who run their own businesses and those who work without pay in the family unit. SIE may be disaggregated to male and female SIEs. A high proportion of group 'a' indicates high level of development.

12.1.4   KILM 4: Employment by sector (EbS):

EbS is employment by the three broad groupings of economic activities, Agriculture, Industry and Services, expressed as percentage of total employment. EbS may be used in identifying broad shifts in employment and stages of development. EbS is broken down by gender to show trends of gender distribution of workers by sector. Cultural attitudes as well as the need to balance family responsibilities with work life may influence choice of sector.

12.1.5   KILM 5: Employment by occupation:

By the ILO's Standard Classification of Occupations 1988 and 1989, employment is organised in the following major groups of occupations:

- k. Legislators, Senior officials and Managers;
- l. Professionals;
- m. Technicians and associate professionals;
- n. Clerks;
- o. Service workers and Shop & Market sales workers;
- p. Skilled agricultural and fisheries workers;
- q. Craft and related trades workers;
- r. Plant and machine operators;
- s. Elementary occupations; and
- t. Armed forces.

KILM 5 Data is expressed as % share of occupational groups. The data is used to develop occupational employment projection levels that inform policies aiming to meet future skills needs, as well as to advise students and job seekers on expected job prospects. Occupational information also informs educational planning and other economic and labour policies. Occupational distribution of

employment indicates stage of development. Data may be disaggregated by gender to determine influence of gender on choice of occupation.

12.1.6 KILM 6: Part-time workers:

These are individuals whose working hours total less than 'full time' as a proportion of total employment. Part-time employment rate is total part-time as percentage of total employment. Full-time work varies between countries from 30-40h or more; it is typically 40h for Nigeria. Part-time work provides flexibility but may be less secure and attracts fewer social benefits. Disaggregated data shows gender trends between full- and part-time works.

12.1.7 KILM 7: Hours of work:

These are hours worked by employed persons per week. Typical work-hour bands are: less than 25h; from 25-34h; from 35-39h; 40-48h; and 49-59h. A second parameter is average annual hours actually worked per person. Interest in work hours stems from the effect of long hours on health, family life, community life and productivity.

12.1.8 KILM 8: Employment in the informal economy (EIE):

EIE is employment in the informal sector as a percentage of total non-agricultural employment. Informal sector is defined as 'unregistered and/or small-scale private unincorporated enterprises that produce goods or services meant for sale or barter'. It is worthy of note that casual, short-term and seasonal workers are informal employment that can exist in the formal sector. The dominant aspect of EIE is self-employment. EIE information gives a clearer picture of contributions of all workers, 'women in particular', to the economy.

12.1.9 KILM 9: Unemployment rate:

This is the % of the unemployed in relation to the labour force. It is widely used as a measure of unutilised labour supply. It is the single most informative indicator of the general performance of the market and the whole economy. Unemployment rate by gender, age, occupation or industry is used in identifying worker groups most vulnerable to joblessness. Household labour surveys provide the most comprehensive and comparable unemployment statistics.

12.1.10 KILM 10: Youth unemployment:

Parameters of youth employment include; Youth labour force; Youth employment rate to adult employment rate; Youth employment to total employment; Youth employment to youth population. Youth employment rate is youth employment as a percentage of the youth labour force. Youth are persons 15 – 24 years of age. Adults are persons 25 years and above. Youth unemployment can have damaging effects on society and the economy.

12.1.11 KILM 11: Long-term employment (LTE):

This is the duration of unemployment. It is expressed as the length of time an unemployed person has been without work and looking for a job. Two measures of LTE are: (a) *Incidence of long-term unemployment* which pertains to all those who are unemployed for one year or longer as a % of the labour force; and (b) *Long-term unemployment rate* which refers to all those unemployed for one year or longer as a proportion of total unemployed.

12.1.12 KILM 12: Time-related underemployment:

This is the number of employed persons whose hours of work in the reference period are insufficient in relation to a more desirable employment in which the persons are willing and available to engage. It is usually expressed as a % of the labour force but may also be

expressed as a % of total employment. In a situation of underemployment, the worker perceives his employment as being of insufficient hours, insufficient compensation, or insufficient use of one's skills. Underemployment reflects underutilisation of the productive capacity of the labour force.

12.1.13 KILM 13: **Inactivity rate:**

Inactivity rate is the proportion of the working-age population that is not in the labour force. Thus inactivity rate + labour force participation rate gives 100%. Individuals are outside the labour force or inactive if they are neither employed nor unemployed, i.e. they (for whatever reason) are not actively seeking work. The labour force is defined as the sum of the employed and the unemployed. The remainder of the working-age population is the number of persons not in the labour force, i.e. inactive.

12.1.14 KILM 14: Educational attainment and illiteracy:

This reflects the level and distribution of the knowledge and skills base of the labour force, employed and unemployed. The five ILO standardised levels of schooling are: less than one year, pre-primary level, primary level, secondary level, and tertiary level. It may be broken down by gender and age as EAI among youth 15 -24, among young adults 24-29, and among adults 30 years and above.

12.1.15 KILM 15: Average monthly wages:

This is the average monthly wages in the total economy; and trends and structure of employers' average compensation costs for the employment of workers in the manufacturing sector. AMW is expressed as nominal or real wages. 'Real wages' is defined as 'the goods and services which can be purchased with wages or are

provided as wages'. It is derived using the consumer price index (CPI); AMW is a major indicator of employees' purchasing power.

12.1.16 KILM 16: Hourly compensation costs:

Average hourly compensation cost is the employers' expenditure on the benefit granted to their employees as compensation for an hour of labour. Costly special surveys are required to compile statistics on total labour costs. HCC is therefore mostly compiled for the manufacturing sector.

12.1.17 KILM 17: Labour productivity:

Labour productivity is the output (i.e. GDP) per unit of labour input (persons engaged or hours worked). LP is a measure of the effectiveness of work by those who are employed. Increased labour productivity will contribute to economic growth.

12.1.18 KILM 18: Poverty, Income distribution and the Working poor:

The *Poverty* characteristic refers to the proportion of the population that is living below the international poverty line of $1.25/day. The proportion of working persons living below the international poverty line is termed *the working poor*. Data on poverty informs poverty alleviation policies aimed at the second MDG target to 'achieve full and productive employment and decent work for all, including women and young people'.

Appendix 2: ILO's INTERNATIONAL STANDARD CLASSIFICATION OF OCCUPATIONS (ISCOs): MAIN GROUPINGS

ISCO-08 Structure: Group Titles and Codes

Major Groups
1 Managers
2 Professionals
3 Technicians and associate professionals
4 Clerical support workers
5 Service and sales workers
6 Skilled agricultural, forestry and fishery workers
7 Craft and related trades workers
8 Plant and machine operators and assemblers
9 Elementary occupations
0 Armed forces occupations

Major groups and sub-major groups
1 Managers
  11 Chief executives, senior officials and legislators
  12 Administrative and commercial managers
  13 Production and specialized services managers
  14 Hospitality, retail and other services managers

2 Professionals
  21 Science and engineering professionals
  22 Health professionals
  23 Teaching professionals
  24 Business and administration professionals
  25 Information and communications technology professionals
  26 Legal, social and cultural professionals

3 Technicians and associate professionals
  31 Science and engineering associate professionals
  32 Health associate professionals
  33 Business and administration associate professionals
  34 Legal, social, cultural and related associate professionals
  35 Information and communications technicians

4 Clerical support workers
  41 General and keyboard clerks
  42 Customer services clerks
  43 Numerical and material recording clerks
  44 Other clerical support workers

5 Service and sales workers

51 Personal service workers
52 Sales workers
53 Personal care workers
54 Protective services workers

6 Skilled agricultural, forestry and fishery workers
  61 Market-oriented skilled agricultural workers
  62 Market-oriented skilled forestry, fishing and hunting workers
  63 Subsistence farmers, fishers, hunters and gatherers

7 Craft and related trades workers
  71 Building and related trades workers, excluding electricians
  72 Metal, machinery and related trades workers
  73 Handicraft and printing workers
  74 Electrical and electronic trades workers
  75 Food processing, wood working, garment and other craft and related trades workers

8 Plant and machine operators and assemblers
  81 Stationary plant and machine operators
  82 Assemblers
  83 Drivers and mobile plant operators

9 Elementary occupations
  91 Cleaners and helpers
  92 Agricultural, forestry and fishery labourers
  93 Labourers in mining, construction, manufacturing and transport
  94 Food preparation assistants
  95 Street and related sales and service workers
  96 Refuse workers and other elementary workers

0 Armed forces occupations
  01 Commissioned armed forces officers
  02 Non-commissioned armed forces officers
  03 Armed forces occupations, other ranks

Appendix 3: Implemented Plan for the Labour Market Observatory Project

S/N	Activity	Timeline
1	First Strategy meeting: Implementation plan; Planning of sensitization workshop & surveys; Identification of stakeholders; logistics arrangements; LMOP Management structure (LMIS Secretariat); Sustainability; etc.	September 02, 2011
2	Notice for Sensitization workshop to be despatched	September 5 -9, 2011
3	Desk Study (Review of Existing Knowledge and Information in the 6 Geo-political Zones)	September 12 – October 7, 2011
4	Survey to identify skill gaps among stakeholders as basis for training: Design and serving of instrument (Sept 11 – 17); collection of information; Analysis of information; report (September 19 – 23)	September 11 – 23, 2011
5	Sensitization/ Awareness Workshop	October 11 – October 13, 2011
6	Second Strategy Meeting for Project Review	October 21, 2011
7	Meeting of Steering Committee	December 14, 2011
8	Third strategy meeting	February 08, 2012
9	Design of LMIS Questionnaires; Identifying information fields & desired reports; identifying target institutions for survey – Drafts to be circulated Tuesday 16 February 2012	February 09 – 21, 2012
10	Fourth Strategy meeting (2 days): to agree on information fields (Nigeria KILM); desired reports; LMIS survey questionnaire.	February 28, 2012
11	Training Workshop for LMIS Desk Officers	March 20 & 21, 2012
12	LMIS Survey – preparatory activities, identifying target institutions for survey; letters, etc.	March 26 – April 13, 2012
13	LMIS Survey – Consultations with MAN, NECA, etc.	April 15 – May 04, 2012
14	LMIS Survey - Data collection (MAN & NUC personnel)	Sept. 03 – Oct. 05, 2012
15	LMIS data analysis by Tech. Consult. & LMOP Unit	Oct. 08 - 12
16	Fifth Strategy meeting to decide on data reports and strategy for writing the final project report	Oct. 24, 2012
17	Production of LMIS Data Reports and charts	Oct. 25 – Dec 14, 2012
18	Strategy meeting to take progress reports on data analysis and production of data reports	December 18, 2012
19	Final report writing (In real & e-conferencing)	Jan. 07 – Mar. 08, 2013
20	Strategy meeting on progress with writing LMOP report	Feb. 13, 2013
21	Final Strategy meeting to agree on final report	Mar. 19 & 20, 2013
22	Submission of report to NUC Management; end of work	Mar. 27, 2013
23	Production of report in booklet form	Apr. 03, 2013
24	Dissemination of report & Stakeholder workshop to mark formal end of the Project	Apr. 09, 2013

Appendix 4: Organogram for the Labour Market Observatory Project and the LMIS

National Steering Committee on LMIS

Chairman: NUC Executive Secretary

The National Technical Committee on LMIS

NATIONAL UNIVERSITIES COMMISSION

The Stakeholder Organizations

The Implementation Committee (LMOP Committee) with NUC Deputy Executive Secretary as Chairman

The Labour Market Observatory (LMO) Unit
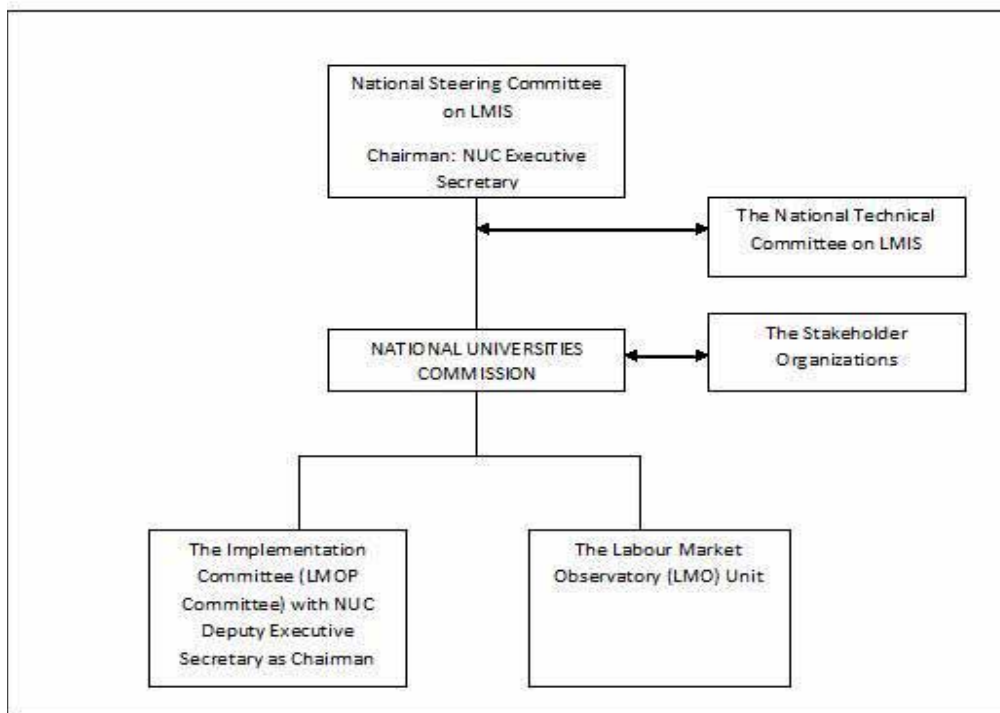
Appendix 5: Membership of the National Steering Committee on LMIS

S/No.	ORGANIZATION	ACRONYM	DESIGNATION	ADDRESS
1	Center for Management Development	CMD	Director General	Centre for Management Development, Management Village, Shangisha, Off Old Lagos-Ibadan Expressway Toll-Gate, Ikeja, Lagos.
2	Central Bank of Nigeria	CBN	Governor	Central Bank of Nigeria, Plot 33, Abubakar Tafawa Balewa Way Central Business District, Cadastral Zone, Abuja, Federal Capital Territory, Nigeria
3	Economic Community of West African States	ECOWAS	President	101, Yakubu Gowon Crescent Asokoro District Abuja, Nigeria
4	Tertiary Education Trust Fund	TETFund	Executive Secretary	ETF Building, No. 6, Zambezi Crescent, Off Aguiyi Ironsi Street, Maitama Abuja FCT Nigeria
5	Federal Institute Of Industrial Research	FIIRO	Director General	Blind Centre Street, adjacent to NITEL Training School, by Cappa Bus stop Oshodi, off Agege Motor Road, Lagos. Nigeria
6	Federal Ministry of Commerce and Industry	FMCI	Honourable Minister	Block H, Old Federal Secretariat, Garki Area 1, Abuja

7	Federal Ministry of Education	FME	Honourable Minister	Block 5A (3rd Floor), Federal Secretariat Complex, Shehu Shagari Way, Central Area, Garki Abuja, Nigeria
8	Federal Ministry of Labour and Productivity	FMLP	Honourable Minister	Block 4A (2nd Floor) Federal Secretariat Complex, Shehu Shagari Way, Central Area, Garki , Abuja, Nigeria
9	Industrial Training Fund	ITF	Director General	No. 1, Kufang Village Miango road (opposite state low cost housing estate) Jos Plateau State.
10	International Labour Organization	ILO	Country Representative	ILO Office for Nigeria, Ghana, Liberia and Sierra Leone United Nations House Plot 617/618 Central Area District Garki Abuja Nigeria
11	Manufacturers Association of Nigeria	MAN	Director General	77, Obafemi Awolowo Way, Ikeja, Lagos, Nigeria.
12	Michael Imoudu National Institute for Labour Studies	MINILS	Director / CEO	Kilometer 7, Olunlade Village, Ajase-Ipo Road, Ilorin Kwara State
13	Ministry of Interior	MOI	Honourable Minister	Block F Old Federal Secretariat, Garki Area 1, FCT Abuja
14	Nigerian Economic Society	NES	President	The Nigerian Economic Society c/o Department of Economics University of Ibadan Ibadan, Nigeria
15	National Association of Small Scale Industrialist	NASSI	President	Plot 4, Limca Way National Secretariat Off Abimbola Street Isolo, Oshodi-Isolo Lagos

16	National Bureau of Statistics	NBS	Statistician General	Plot 762 Independence Ave. CBD FCT Abuja
17	National Universities Commission	NUC	Executive Secretary	Plot 26, Aguiyi Ironsi street, Maitama Abuja
18	National Directorate of Employment	NDE	Director General	Plot 1529 Nouakchott Street Zone 1, Wuse, Abuja.
19	National Identity Management Commission	NIMC	Director General	The Director General / Chief Executive National Identity Management Commission 11 Sokode Crescent, Off Dalaba Street Zone 5, Wuse Garki – Abuja
20	National Institute of Planning and Administration	NIEPA	Director General	KM 3 Laje Road Off Ondo Ore Road Akoko North East Ondo
21	National Planning Commission	NPC	Honourable Minister	Plot 421 Constitution Avenue Central Business District F.C.T , Abuja
22	National Population Commission	NPopC	Chairman	No. 1 Masaka Close Off Olusegun Obasanjo Way Zone 7, Wuse FCT Abuja Nigeria
23	National Poverty Eradication Programme	NAPEP	National Coordinator	Plot 1346 Ahmadu Bello Way Garki, Abuja
24	National Productivity Center	NProC	Director General	Plot 149B Abidjan Street Wuse Zone 3 Abuja
25	Nigeria Association of Chamber of Commerce, Industry, Mines & Agriculture	NACCIMA	Director General	8A, Oba Akinjobi Way, G.R.A. Ikeja, Lagos Nigeria.
26	Nigeria Labour Congress	NLC	President	Labour House Plot 820/821 Central Business District FCT Abuja
27	Nigerian Educational Research & Development Council	NERDC	Executive Secretary	Lokoja-Kaduna Road P.M.B. 91 Garki Abuja

28	Nigerian Employers Consultative Association	NECA	Director General	HEADQUARTERS: NECA House, Plot A2, Hakeem Balogun Street, Central Business District, Alausa, Ikeja, Lagos. P.O. Box 2231, Marina, Lagos.
29	Nigerian Industrial Relations Association	NIRA	Professor of Industrial Relations	C/o Department of Industrial Relations and Personnel Mgmt., Faculty of Business Administration, University of Lagos, Akoka, Yaba, Lagos.
30	Nigerian Institute for Social and Economic Research	NISER	Director General	NISER Oyo Road, Ojoo, Ibadan, Oyo State, Nigeria
31	British Council	BC	Representative	Plot 3645, IBB Way Maitama Abuja, Nigeria
32	Nigerian National Commission for UNESCO	NNC for UNESCO	President	Plot 245, Samuel Adesujo Ademulegun Street 2nd Floor, Central Business District ABUJA NIGERIA
33	Nigerian Stock Exchange	NSE	President	Headquarters: (8th, 9th, & 11th Floors) 2/4 Customs Street, P.O. Box 2457, Lagos, Abuja Office: The Nigerian Stock Exchange Labour House Central Business District Garki, Abuja
34	The New Partnership for Africa's Development	NEPAD	Special Adviser to the President	New Partnership For African Development 18 Ganges Street, off Alvan Ikoku way, Maitama, Abuja - Nigeria

35	The Small and Medium Enterprises Development Agency of Nigeria	SMEDAN	Director General	Plot 35, Port Harcourt Crescent, Off Gimbiya Street, Area 11, Garki Abuja FCT
37	United Nations Development Programme	UNDP	Resident Representative/ Country Director	United Nations Development Programme United Nations House Plot 617/618, Diplomatic Zone, Central Area District, P.M.B. 2851, Garki, Abuja, Nigeria.
38	United Nations Educational, Scientific, and Cultural Organization	UNESCO	Director	UN House Plot 617/618 Diplomatic Drive Central Area District Garki Abuja Nigeria
39	United Nations Industrial Development Organization	UNIDO	Regional Director	REGIONAL OFFICE, ABUJA Central Area District, Plots 617-618, Garki Abuja Nigeria
40	National Youth Service Corp	NYSC	Director General	Plot 416, Tigris Crescent Off Aguiyi Ironsi Street, Maitama Abuja
41	Chartered Institute of Bankers	CIB	The President	70 Queens Street, Alagomaji, Yaba, Lagos
42	Council for the Regulation of Engineering	COREN	The Registrar	22 Addis Ababa Crescent, Wuse Zone 4, Abuja
43	Mobil Oil Corporation		Chairman	Mobil Apapa Complex, 1 Mobil Road Apapa Lagos
44	Schlumberger Nigeria Limited		Managing Director	17/19 Idowu Taylor Street, Victoria Island, Lagos
45	Shell Petroleum Development Company		Managing Director	Shell Petroleum Development Company, plot 461, Constitution Avenue, Central Business District, Abuja

Appendix 6: Membership of the National Technical Committee on LMIS

S/No.	ORGANIZATION	ACRONYM	DESIGNATION	ADDRESS
1	Center for Management Development	CMD	Desk Officer	Centre for Management Development, Management Village, Shangisha, Off Old Lagos-Ibadan Expressway Toll-Gate, Ikeja, Lagos.
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11	Manufacturers Association of Nigeria	MAN	Desk Officer	77, Obafemi Awolowo Way, Ikeja, Lagos, Nigeria.
12	Michael Imoudu National Institute for Labour Studies	MINILS	Desk Officer	Kilometer 7, Olunlade Village, Ajase-Ipo Road, Ilorin Kwara State
13	Ministry of Interior	MOI	Desk Officer	Block F Old Federal Secretariat, Garki Area 1, FCT Abuja
14	Nigerian Economic Society	NES	Desk Officer	The Nigerian Economic Society c/o Department of Economics University of Ibadan Ibadan, Nigeria
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19	National Identity Management Commission	NIMC	Desk Officer	The Director General / Chief Executive National Identity Management Commission 11 Sokode Crescent, Off Dalaba Street Zone 5, Wuse Garki – Abuja
20	National Institute of Planning and Administration	NIEPA	Desk Officer	KM 3 Laje Road Off Ondo Ore Road Akoko North East Ondo
21	National Planning Commission	NPC	Desk Officer	Plot 421 Constitution Avenue Central Business District F.C.T , Abuja
22	National Population Commission	NPopC	Desk Officer	No. 1 Masaka Close Off Olusegun Obasanjo Way Zone 7, Wuse FCT Abuja Nigeria
23	National Poverty Eradication Programme	NAPEP	Desk Officer	Plot 1346 Ahmadu Bello Way Garki, Abuja
24	National Productivity Center	NProC		Plot 149B Abidjan Street Wuse Zone 3 Abuja
25	Nigeria Association of Chamber of Commerce, Industry, Mines & Agriculture	NACCIMA	Desk Officer	8A, Oba Akinjobi Way, G.R.A. Ikeja, Lagos Nigeria.
26	Nigeria Labour Congress	NLC	Desk Officer	Labour House Plot 820/821 Central Business District FCT Abuja
27	Nigerian Educational Research & Development Council	NERDC	Desk Officer	Lokoja-Kaduna Road P.M.B. 91 Garki Abuja

28	Nigerian Employers Consultative Association	NECA	Desk Officer	HEADQUARTERS: NECA House, Plot A2, Hakeem Balogun Street, Central Business District, Alausa, Ikeja, Lagos. P.O. Box 2231, Marina, Lagos.
29	Nigerian Industrial Relations Association	NIRA		C/o Department of Industrial Relations and Personnel Mgmt., Faculty of Business Administration, University of Lagos, Akoka, Yaba, Lagos.
30	Nigerian Institute for Social and Economic Research	NISER	Desk Officer	NISER Oyo Road, Ojoo, Ibadan, Oyo State, Nigeria
31	British Council	BC		Plot 3645, IBB Way Maitama Abuja, Nigeria
32	Nigerian National Commission for UNESCO	NNC for UNESCO		Plot 245, Samuel Adesujo Ademulegun Street 2nd Floor, Central Business District ABUJA NIGERIA
33	Nigerian Stock Exchange	NSE		Headquarters: (8th, 9th, & 11th Floors) 2/4 Customs Street, P.O. Box 2457, Lagos, Abuja Office: The Nigerian Stock Exchange Labour House Central Business District Garki, Abuja
34	The New Partnership for Africa's Development	NEPAD	Desk Officer	New Partnership For African Development 18 Ganges Street, off Alvan Ikoku way, Maitama, Abuja - Nigeria

35	The Small and Medium Enterprises Development Agency of Nigeria	SMEDAN	Desk Officer	Plot 35, Port Harcourt Crescent, Off Gimbiya Street, Area 11, Garki Abuja FCT
37	United Nations Development Programme	UNDP		United Nations Development Programme United Nations House Plot 617/618, Diplomatic Zone, Central Area District, Garki, Abuja, Nigeria.
38	United Nations Educational, Scientific, and Cultural Organization	UNESCO		UN House Plot 617/618 Diplomatic Drive Central Area District Garki Abuja Nigeria
39	United Nations Industrial Development Organization	UNIDO		REGIONAL OFFICE, ABUJA Central Area District, Plots 617-618, Garki Abuja Nigeria
40	National Youth Service Corp	NYSC	Desk Officer	Plot 416, Tigris Cresent Off Aguiyi Ironsi Street, Maitama Abuja
41	Chartered Institute of Bankers of Nigeria	CIBN	Desk Officer	70 Queens Street, Alagomaji, Yaba, Lagos
42	Council for the Regulation of Engineering	COREN	Desk Officer	22 Addis Ababa Cresent, Wuse Zone 4, Abuja
43	Mobil Oil Corporation			Mobil Apapa Complex, 1 Mobil Road Apapa Lagos
44	Schlumberger Nigeria Limited		Desk Officer	17/19 Idowu Taylor Street, Victoria Island, Lagos
45	Shell Petroleum Development Company		Desk Officer	Shell Petroleum Development Company, plot 461, Constitution Avenue, Central Business District, Abuja

Appendix 7: Membership of the Labour Market Observatory Project Committee

NAME	Rank
Mr. Akinbode S. Agbaoye	Deputy Executive Secretary: Chairman
Dr. S.B. Ramon-Yusuf	Director (Ag): Member
Dr. Noel B. Saliu	Deputy Director: Member
Dr. Joshua Atah	Chief ICT Officer: Member
Mr. Adam I. Muhammad	Chief ICT Officer: Member
Mr. Obiechefu T. Ukwuagu	Assistant Chief, Research and Innovation Officer: Member
Miss Patricia Eromosele	Senior, ICT Officer: Member
Mrs. Lulu Udoka	Trainee Officer II: Member/Secretary

Appendix 8: Staff of the NUC Labour Market Observatory Unit by qualification and rank

NAME	Highest Qualification	Rank
Mr. Obiechefu T. Ukwuagu	Masters	Assistant Chief, Research and Innovation Officer
Mr. Peter Tobrise	Bachelor of Science	Principal, Research and Innovation Officer
Miss Patricia Eromosele	Master of Science	Senior, ICT Officer
Mr. Chukwuemeka Nwufo	Master of Science	Senior, ICT Officer
Mrs. Onyinye Akauba	Bachelor of Science	Trainee Officer II
Mrs. Lulu Udoka	Bachelor of Science	Trainee Officer II

Appendix 9: CONTENT FOR THE NIGERIA LABOUR MARKET INFORMATION SYSTEM

1. Social statistics and Demographic data*
  1.1. Population growth rate by age group, gender, state and urban/rural
  1.2. Population over time by age group and gender
  1.3. Sex ratio by age group
  1.4. Population distribution by state and local government
  1.5. Literacy rates by gender, age group and state
  1.6. Population densities by state
  1.7. Urban population by urban centre
  1.8. Population projections by age group, gender and state
  Data sources: National Population Commission, National Bureau of Statistics
  Methodology: LMOP Secretariat to sent list to secondary information sources to supply the data

2. Educational Information*
  2.1. Enrolments in primary, secondary and tertiary levels by gender and state
  2.2. Enrolment at tertiary level by discipline (prospective occupation)
  2.3. Teachers at primary, secondary and tertiary levels by gender and state
  2.4. Numbers completing each level by age group, gender and state
  2.5. Number completing tertiary level/output by discipline (prospective occupation)
  2.6. Graduation rate at each level by age group, gender and state
  2.7. Educational attainment by qualification, gender and state
  2.8. Persons on the register of statutory professional bodies by gender and state
Data sources: National Universities Commission, National Board for Technical Education, National Commission for Colleges of Education, Ministries of Education, Statutory professional bodies
Methodology: LMOP Secretariat sent list to secondary information sources to supply the data

3. Employment, Unemployment and Labour Market Information
  3.1. Population 15 years and above by occupation and gender
  3.2. Employment by industry, occupation and gender; national and state
  3.3. *Employment by industry, educational level and gender
  3.4. *Number of hours worked by industry, occupation and gender
  3.5. *Projected employment by industry and occupation

3.6. Number of unemployed (job seekers) by educational level, gender and age group
3.7. Number of unemployed by educational level, gender and urban/rural
3.8. Number of unemployed by gender, educational level and state
3.9. *Size of labour force by sector, gender and state
3.10. *Projected growth of labour force, overall and by sectors
3.11. *Skill level of workers by occupation/sector
3.12. *Participation rate by age, gender and state
3.13. *Levels of youth unemployment and under-employment by gender and state
3.14. *Identification of training needs as reported by sector
3.15. *Growth or contraction of wage employment by occupational sector
3.16. *Vacancies (job) by occupation, industry and state
3.17. Projected vacancies by occupation, industry and educational level
3.18. *Labour stock and requirements

Data sources: National Association of Chambers of Commerce, Mines and Agriculture, Manufacturers Association of Nigeria, National Employers' Consultative Association, National Association of Small Scale Industrialists

Methodology: LMOP Secretariat to send list to secondary information sources for 3.1-3.2, 3.6-3.8, and 3.17. Carry out household surveys for the remaining sections - Technical Consultant to prepare questionnaire for this purpose.

4. Wages and earnings
4.1. *Average earnings by industry and occupation
4.2. *Average earnings by industry and gender
4.3. *Average earnings by industry, gender and state
4.4. *Average earnings by occupation, gender and state

Data sources: Salaries, Incomes and Wages Commission, etc.

Methodology: Carry out household and/or work place surveys – Technical Consultant to prepare questionnaire for this purpose. Supplement with data from secondary information sources

5. Industrial relations
5.1. *Number of trade unions and employers' organisations by industry
5.2. *Number of disputes resolved/unresolved *i.e.* strikes and lockouts by *industry
5.3. *Number of collective bargaining agreements by industry
5.4. *Number of recognition agreements by industry

Data sources: Federal Ministry of Labour and Productivity, National Industrial Court, Nigeria Labour Congress, Trade Union Congress

Methodology: Through questionnaire and possibly interviews using 5.1 – 5.4 as checklist

6. Informal Sector
6.1. Estimated employment by type of business and activity (industry)
6.2. Estimated employment by sex, type of business and state
6.3. Average wages by occupation, gender and type of business
6.4. Projected growth in employment by type of business and activity (industry)

Data sources: Trade associations were consulted by NUC

Methodology: By work place surveys. Questionnaire was prepared by consultants.

7. Economic statistics
7.1. Distribution of gross domestic product by economic activity at factor cost in current prices
7.2. Nigeria consumer price indices

Data sources: Federal Ministry of Commerce, National Bureau of Statistics, Central Bank of Nigeria, National Institute for Social and Economic Research, National Planning Commission, Nigeria Customs Service

Methodology: LMOP Secretariat to send list to secondary information sources to supply the data

8. Labour Market Policies
8.1. Policies on remuneration and social benefits in public/private sectors
8.2. Government industrial investment and promotion policies and their effects on employment and the demand for skills, by sector and employment category
8.3. Policies relating to technological development and their effect on employment by category and gender
8.4. Policies relating to unemployment subsidies and work creation
8.5. Policies to promote the employment of special groups (women, school dropouts, illiterates, unemployed youth, ethnic minorities, disabled)
8.6. Trends in the labour market and the impact on future demands for skills, knowledge and their effect on gender employment

Data sources: Federal Ministry of Labour and Productivity, Nigeria Labour Congress, Trade Union Congress of Nigeria

Methodology: LMO Unit to send list to secondary information sources; and also request relevant publications after LMOP

9. Training Policies and Programmes
9.1. The main features of the education and training system, its co-ordination, inter-relationships, and the balance of public and private sector provision

9.2. Details of staffing at training institutions - qualifications (technical, pedagogical, industrial experience), staff/trainee ratios, opportunities for staff development, staff turnover

9.3. Training policies relating to equity, gender, role of private sector, and role of employers

9.4. Training responsibility: numbers disaggregated by public/private institutions and in-plant training

9.5. Apprenticeship, duration, numbers by sector, gender and state

9.6. Available programmes by vocational fields/trades, duration and qualification

9.7. Capacity and numbers enrolled in each category of training by gender and state

9.8. Trainee performance, pass-rates, repetitions and drop-outs, by type of programme, region, and gender

9.9. Provisions of career guidance/counselling and job placement services

9.10. Results of tracer studies showing training relevance to future employment

9.11. Capacity of training systems to undertake evaluation and research

9.12. Available evaluative studies of training system's effectiveness and responsiveness

Data sources: Industrial Training Fund, and Michael Imoudu Institute of Labour Studies – for 9.3 and 9.4; Polytechnics, Technical Colleges, Vocational and other skill centres - for 9.5-9.8; etc.

Methodology: Through Surveys; and Secondary information sources – Later

*Indicates the items of information designated for the LMOP Pilot Survey on LMI in the Nigerian manufacturing sector.

Appendix 10: Communiqué from the Stakeholder Sensitization Workshop on Labour Market Information System, NUC Secretariat, Abuja

We, the participants at the NUC-World Bank Stakeholders' Workshop on the Labour Market Information System (LMIS) held at the Virtual Library Building of the National Universities Commission, Abuja on 18th October, 2011:

Appreciating past and present efforts of stakeholders in addressing the challenges of generating appropriate and adequate labour market information to guide the national planning and decision making process;

Noting the need to concentrate on the development of human resources, which is critical to national development;

Cognizant of the perceived mismatch between University output and labour market demand as indicated by employers' assessment of graduates;

Realizing that the employment prospect of graduates in Nigeria has clearly deteriorated and the country has had progressive development of underdevelopment;

Observing that there is a gap in the certificates possessed by some Nigerian graduates and their demonstrable competencies; Many Nigerian graduates reportedly lack communication, technical, conceptual and analytical and human/organization process skills;

Applauding the aptness of the Workshop in view of the obvious non-implementation of development plans, which are essential for national growth and development;

Observing the lack of linkage among organizations with cross-cutting mandates which has negative impact on quality coherence among stakeholder organizations and the generation of a sufficiently rich pool of labour market information;

Noting that labour market data gathering is a major challenge that could adversely affect the LMOP and this could be associated with stakeholders not making requisite information from their organizations readily available;

Recognising that the informal sector, which is the dominant sector of the Nigerian economy, has been neglected in the various labour market interventions;

Hereby recommend that:
- All Stakeholders relevant to the Nigerian Labour Market Information System should be involved in the Labour Market Observatory Project;
- Policy coherence should be entrenched at all levels of the implementation of the project as this will facilitate the evolution of rich collection of data for national planning and development;
- University training should be largely based on data-backed information on areas of national need;
- Technical skill development should be replicated in all stakeholder organizations to solve the problem of underdevelopment;
- Nigerian University curriculum should be made responsive to the ever-growing changes in the various subject areas;
- There be a conscious effort to put to use the data generated by the LMIS and this should be keyed into the National Employment Policy;
- Advocacy be painstakingly carried out among stakeholder organizations to improve responsiveness to labour market issues;

- The format for information gathering under the project should be simplified for easy data collection;

- The informal sector should be well captured in the project and they should be strengthened to contribute to the facilitation of entrepreneurial education in higher education institutions;

- The LMOP governance structure include a Steering Committee comprising chief executives of the major stakeholder organizations with Executive Secretary NUC as chairman, and a technical committee comprising desk officers of the stakeholder organizations acting in advisory capacity to the Project;

- A committee should be constituted from the stakeholder organizations to identify, within a short time frame, the labour market gaps that will be addressed by the LMOP and the Nigerian University System;

- Industry support to the Nigerian University System be encouraged and that the NUC should facilitate the implementation;

- An initial set of data should be collected under the project by January, 2012 to guide decision making on labour market issues;

- All the appropriate stakeholder organizations should form part of the structure for the implementation of the Labour Market Information System (LMIS). This should be replicated at both state and local government levels.

- LMIS be funded by Federal, State and Local Governments. International and Nigerian donor agencies should also be approached to support the project.

- The nature of data to be collected for LMIS should include information on unemployment, underemployment, employment, informal and formal economies, student enrolment and graduate output. Others include job opening and job loss, available and required skills from the formal and informal economies, areas of manpower shortage and surplus in the country, expatriate quota, wages and salaries,

population by age group and qualification, manpower training required by the job market, skills required by employers of labour, attrition rate, quality and calibre of people employed, among others;

- Reports on LMIS in all the areas for which data was collected should be published bi-annually.

Appendix 11: Questionnaire on LMOP stakeholder needs for labour market information and for training

A. RESPONDENT'S INFORMATION

    1. Your Name: _

    2. Affiliated Organisation: _

_ _

B. LABOUR MARKET INFORMATION NEEDS

    1. Need for LMI
    In order of priority, list all possible items of labour market information that you are likely to need from the Labour Market Observatory:

       a. _
       b. _
       c. _
       d. _
       e. _
       f. _
       g. _
       h. _
       i. _
       j. _

C. CAPACITY FOR HANDLING LABOUR MARKET INFORMATION

    Please circle the option that best describes your status

    1. LMI data Collection Skills:
    Rate your knowledge and expertise in LMI data collection methods on the following scale:

    [a] Excellent **[b]** Very good **[c]** Good **[d]** Average **[e]** Poor **[f]** Nil

    2. LMI Data and Information Processing
    Rate your competence in data processing on the following scale:

[a] Excellent **[b]** Very good **[c]** Good **[d]** Average **[e]** Poor **[f]** Nil

3. **Data and Information Analysis**
   Rate your competence in data analysis on the following scale:

   [a] Excellent **[b]** Very good **[c]** Good **[d]** Average **[e]** Poor **[f]** Nil

4. **LMI Data report Formats; and**
   Rate your expertise in conceptualisation of data report formats on the following scale:

   [a] Excellent **[b]** Very good **[c]** Good **[d]** Average **[e]** Poor **[f]** Nil

5. **Report writing on LMI**
   Rate your capability in LMI report writing on the following scale:

   [a] Excellent **[b]** Very good **[c]** Good **[d]** Average **[e]** Poor **[f]** Nil

D. LMIS SOFTWARE APPLICATIONS CAPABILITY
   1. **LMIS Software utilisation**
      Rate your previous experience with utilisation of LMIS software as follows:

      [a] Excellent **[b]** Very high **[c]** High **[d]** Average **[e]** Poor **[f]** Nil

   2. **LMIS/Human Resource Software (HR)**
      How many different LMI/HR software have you previously used?

      [a] Five **[b]** Four **[c]** Three **[d]** Two **[e]** One **[f]** None
   Please list names of the software you have used overleaf

   3. **LMIS Software Administration**
      Rate your expertise at administration (i.e. trouble shooting and problem solving) of LMIS software as follows:

      [a] Excellent **[b]** Very good **[c]** Good **[d]** Average **[e]** Poor **[f]** Nil

      NB. Please write any **additional LMI needs** at the back of this page

Appendix 12: Questionnaire for the LMOP pilot survey on LMI in the Nigerian manufacturing sector

NATIONAL UNIVERSITIES COMMISSION

(Labour Market Observatory Project)

Dear Sir/Ma,

The National Universities Commission, Abuja is currently engaged in setting up a Labour Market Observatory in Nigeria. The objective of the effort is to contribute to the efficient and effective management of the country's labour market in a way that the growing problems of youth unemployment and skill mismatch could be solved.

The observatory would also facilitate curriculum re-engineering in the tertiary education system to equip graduates with the knowledge and skills that industries such as yours need.

It is for these and many other reasons that the Commission would like to solicit your cooperation to complete this questionnaire. We would like to give assurance that any information you provide would be treated as confidential.

Additional pages may be appended to the questionnaire where your organisation considers this necessary.

SECTION A: GENERAL INFORMATION

1.   Name of Organisation: ....

2.   Address: ....

3.   Product/Services: ....

4.   Year Established: ....

SECTION B: EMPLOYMENT BY YEAR, OCCUPATION, EDUCATION AND GENDER

5.   Total number of the organisation's staff on 31 December each year in the last 10 years by occupation and gender?

Occupational Group	2001		2003		2005		2007		2009		2011	
	M	F	M	F	M	F	M	F	M	F	M	F
Managers												
Professionals:												
➢ Engineers												
➢ Administrators												
➢ Others												
Assoc. professionals:												
➢ Technologists												
➢ Technicians												
➢ Others												
Clerical support workers												
Craftsmen & equivalent												
Plant & machine operators & assemblers												
Cleaners, laborers, etc.												
Total												

6. How many of the current staff of the organisation has their highest qualifications at the following educational levels?

Occupation	Primary level		Secondary level		Tertiary level & equivalent								Total		%	
					HND		B.Sc., etc.		PG		Others					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Managers																
Professionals:																
➢ Engineers																
➢ Administrators																
➢ Others																
Assoc. professionals:																
➢ Technologists																
➢ Technicians																
➢ Others																
Clerical support workers																
Craftsmen & equivalent																
Plant & machine operators & assemblers																
Cleaners, laborers, etc.																
Total																

7. How many of the current intermediate/senior staff of the organisation have qualification in the following disciplines?

Agric		Arts		Science		Social Science		Management		Engineering		Environ. Scs	
M	F	M	F	M	F	M	F	M	F	M	F	M	F

Law		Pharmacy		Med		Vet.		Others	
M	F	M	F	M	F	M	F	M	F

SECTION C: DAILY HOURS WORKED, LABOUR STOCK, LABOUR PROJECTIONS AND JOB VACANCIES

8.   Please indicate number of hours worked per day by your employees in the under listed occupations.

Occupation	Hours worked/day
Managers	
Professionals:	
➢ Engineers	
➢ Administrators	
➢ Others	
Assoc. professionals:	
➢ Technologists	
➢ Technicians	
➢ Others	
Clerical support workers	
Craftsmen & equivalent	
Plant & machine operators & assemblers	
Cleaners, laborers, etc.	
Total	

9.   What are the current labour stock and labor requirements of your organisation for the following worker groups?

Occupation	Stock		Requirement		Difference	
	M	F	M	F	M	F
Managers						
Professionals:						
➢ Engineers						
➢ Administrators						
➢ Others						
Assoc. professionals:						
➢ Technologists						
➢ Technicians						
➢ Others						
Clerical support workers						
Craftsmen & equivalent						
Plant & machine operators & assemblers						
Cleaners, laborers, etc.						
Total						

10. Indicate the number of staff that your organisation would require in the stated years.

Occupational Group	2013		2014		2015		2016		2017		Total		%	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Managers														
Professionals:														
➢ Engineers														
➢ Administrators														
➢ Others														
Assoc. professionals:														
➢ Technologists														
➢ Technicians														
➢ Others														
Clerical support workers														
Craftsmen & equivalent														
Plant & machine operators & assemblers														
Cleaners, laborers, etc.														
Total														

11. State the number of job vacancies that presently exist in your organization

Occupation	Number of Vacancies	
	M	F
Managers		
Professionals: ➢ Engineers		
➢ Administrators		
➢ Others		
Assoc. professionals: ➢ Technologists		
➢ Technicians		
➢ Others		
Clerical support workers		
Craftsmen & equivalent		
Plant & machine operators & assemblers		
Cleaners, laborers, etc.		
Total		

SECTION D: EMPLOYEE COMPETENCIES, TRAINING NEEDS

12. Rate the graduates in your employment according to their competencies in the listed skill areas by ticking (√) your response.

Skills	Excellent	Very Good	Good	Average	Poor	Very Poor
Communication						
Technical						
Analytical						
Team working						
Problem solving						
Multi-tasking						
Managerial						
ICT						
Others						

13. Does your firm carry out identification of training needs (ITN) of your staff?

    (Please tick (√) your response.

    Yes   ☐

    No   ☐

14. If yes, how frequently do you do this? (Please tick (√) your response.

    Occasionally   ☐

    Annually Year   ☐

    Others(Specify)   ☐ ....

15. How do you implement the result of the ITN?

    (a) Through in-plant capacity building

    (b) Through out-of plant capacity building

    (c) On the job training

    (d) All of the above

16. List the training needs of members of staff of your organisation

    a.   ....

    b.   ....

    c.   ....

    d.   ....

SECTION E: WAGES AND SALARIES

17. What is the average earning of the following categories of workers in your organisation?

Occupation	Average earning/month	
	M	**F**
Managers		
Professionals: ➢ Engineers		
➢ Administrators		
➢ Others		
Assoc. professionals: ➢ Technologists ➢ Technicians ➢ Others		
Clerical support workers		
Craftsmen & equivalent		
Plant & machine operators & assemblers		
Cleaners, laborers, etc.		
Total		

SECTION F: LABOUR MATTERS

18. Please list the trade unions to which members of your organization belong.

    a. ....

    b. ....

    c. ....

    d. ....

    e. ....

    f. ....

Thank you for your time. We request your patience with the Commission should we subsequently ask for further information from your organization.

Appendix 13: Number of staff in the manufacturing sector by occupational group and gender

Occupational Group	2001 M	F	2003 M	F	2005 M	F	2007 M	F	2009 M	F	2011 M	F
Managers	687	216	689	238	769	284	880	325	998	352	1190	426
Engineers	457	67	501	90	561	119	664	141	757	183	938	231
Administrators	477	253	525	273	518	336	706	392	812	489	998	571
Others Professionals	209	37	220	41	262	52	343	98	468	182	516	201
Technologists	307	153	340	166	419	197	548	245	627	286	689	368
Technicians	1112	168	1054	165	1115	176	1215	217	1412	285	1699	330
Others Assoc. Professionals	164	67	219	72	254	84	334	120	694	259	753	301
Clerical support workers	779	657	856	753	1037	848	1215	998	1382	1146	1566	1349
Craftsman and equivalent	721	141	955	231	1031	340	1122	368	1349	407	1534	417
Plant and machine operators and assemblers	5399	683	5530	800	5885	964	7417	1498	6749	1701	6941	1708
Cleaners, labourers, etc.	1948	750	1937	859	2269	1052	2691	1235	2905	1391	3280	1637
Total	**12440**	**3291**	**12996**	**3806**	**14291**	**4583**	**17300**	**5783**	**18326**	**6910**	**20374**	**7837**

Source: LMOP field survey, 2012

Appendix 14: Educational qualification of staff in the manufacturing sector by occupational group

	Prim. Level M	F	Secondary Level M	F	HND M	F	BSc etc. M	F	PG M	F	Others M	F	TOTAL M	F
Managers	70	12	114	15	460	227	686	276	199	59	40	7	1569	596
Engineers	37	0	46	1	548	133	442	91	130	18	33	1	1236	244
Administrators	15	10	24	21	465	277	499	217	86	48	31	14	1120	587
Others Professionals	10	30	56	8	112	41	98	54	8	1	105	72	389	206
Technologists	5	3	7	5	495	251	140	97	25	13	132	24	804	393
Technicians	59	1	426	18	506	210	151	72	7	13	411	31	1560	345
Others Assoc. Professionals	69	49	377	166	75	34	105	50	3	2	90	32	719	333
Clerical support workers	79	45	768	535	333	302	124	85	7	5	253	297	1564	1269
Craftsman and equivalent	218	10	638	34	225	132	67	36	0	0	236	184	1384	396
Plant and machine operators and assemblers	1291	382	4844	1398	421	187	143	50	4	0	412	239	7115	2256
Cleaners,	1070	357	1210	534	43	16	23	6	0	0	583	451	2929	1364

labourers, etc.														
Total	3060	1161	8661	3013	3764	1869	2534	1052	478	162	2399	1398	20896	8655

Source: LOMP Field Work 2012

Appendix 15: Educational qualifications of staff in the manufacturing subsectors

Subsector	Primary Level	Secondary Level	HND	BSc etc.	PG	Others
MOTOR VEHICLES	18	146	154	91	14	81
ELECTRICAL / ELECTRONICS	169	268	308	154	29	105
FOOD AND BEVERAGES	575	2667	2217	1247	173	1524
PHARMACEUTICALS / CHEMICALS	1743	3369	1145	897	304	298
NON-METALLIC	283	1858	1268	761	90	922
TEXTILES / LEATHER PRODUCTS	1281	2853	357	280	17	724
WOOD / WOOD PRODUCTS / FURNITURE	116	332	44	47	1	0
RUBBER AND PLASTICS	36	181	140	109	12	143

Source: LMOP Field Work 2012

Appendix 16: Distribution of Intermediate/Senior staff by academic discipline and gender

Disciplines	M	F
Admin/Management	836	509
Agriculture	262	135
Arts	237	143
Basic Medical Sciences	0	0
Education	13	6
Engineering	1108	255
Environmental Sciences	288	286
Law	35	9
Medicine	6	10
Pharmacy	41	27
Science	758	369
Social Sciences	775	399
Veterinary Medicine	5	3

Source: LMOP Field Work 2012

Appendix 17: Distribution of staff in the manufacturing subsectors by Arts-based disciplines

Subsector	Arts	Social Sciences	Management.	Law	Educ.	Total
Motor Vehicles	45	104	66	2	0	217
Electrical / Electronics	45	57	70	2	0	174
Food and Beverages	88	491	544	14	0	1137
Pharmaceuticals / Chemicals	81	157	194	6	19	457
Non-Metallic	73	242	327	8	0	650
Textiles / Leather Products	31	82	97	9	0	219
Wood / Wood Products / Furniture	7	4	8	0	0	19
Rubber and Plastics	10	37	39	3	0	89
Total	380	1174	1345	44	19	2962

Source: LMOP field survey, 2012

Appendix 18: Distribution of staff in the manufacturing subsectors by science-based disciplines

	Agric.	Sc.	Engr.	Env. Scs.	Pharm.	Med.	Vet. Med.	BMS	Total
Motor Vehicles	3	83	41	0	0	1	0	0	128
Electrical / Electronics	1	64	159	22	1	7	0	0	254
Food and Beverages	322	467	426	221	3	5	8	0	1452
Pharmaceuticals / Chemicals	30	203	118	44	45	1	0	0	441
Non-Metallic	12	163	415	197	2	2	0	0	791
Textiles / Leather Products	7	95	130	59	17	0	0	0	308
Wood / Wood Products / Furniture	1	7	22	3	0	0	0	0	33
Rubber and Plastics	21	45	52	28	0	0	0	0	146
Total	397	1127	1363	574	68	16	8	0	3553

Source: LMOP field survey, 2012

Appendix 19: Job vacancies in the manufacturing sector by occupational group

Occupational Group	Number of Vacancies			%
	M	F	Total	
Managers	108	68	176	5.8
Engineers	146	72	218	7.2
Administrators	145	100	245	8.0
Other Professionals	54	16	70	2.3
Technologists	127	78	205	6.7
Technicians	187	94	281	9.2
Other Assoc. Professionals	30	13	43	1.4
Clerical support workers	210	198	408	13.4
Craftsman and equivalent	155	97	252	8.3
Plant and machine operators and assemblers	421	142	563	18.5
Cleaners, labourers, etc.	342	245	587	19.3
Total	1925	1123	3048	100.0

Source: LMOP field survey, 2012

Appendix 20: Frequencies of employer rating of competencies of their graduate employees in various skills

	Excellent	Very Good	Good	Average	Poor	Very Poor
Communication	30	69	68	12	0	0
Technical	27	89	45	13	3	0
Analytical	25	57	75	20	1	1
Team working	39	86	36	17	2	0
Problem Solving	22	69	66	18	4	1
Multi-tasking	20	53	77	20	5	1
Managerial	31	72	51	21	3	0
ICT	8	35	47	61	15	2
Others	9	7	17	12	1	0
TOTAL	211	537	482	194	34	5

Source: LMOP field survey, 2012

Appendix 21: Average monthly wages of staff in the various occupational groups in the manufacturing sector by gender

Occupational Groups	M	F	Average
Managers	8,858,084	1,570,000	125,843
Engineers	5,481,003	697,000	94,370
Administrators	4,032,612	1,151,000	62,510
Other Professionals	2,285,250	636,000	62,543
Technologists	3,030,955	731,500	60,629
Technicians	2,399,267	529,000	52,743
Others Assoc. Professionals	1,095,698	212,000	48,550
Clerical Support Workers	1,861,075	734,000	24,801
Craftsman and equivalent	947,188	222,000	25,313
Plant and machine operators and assemblers	2,500,173	424,000	30,560
Cleaners, labourers, etc.	1,378,144	739,150	17,183

Source: LMOP field survey, 2012

Appendix 22: Average monthly wages by occupational group within each of the manufacturing subsectors

	Motor Vehicle	Electrical/ Electronics	Food & Beverages	Pharm/ Chemicals	Non-Metallic	Textiles	Wood/ Furniture	Rubber/ Plastics
Managers	131,200	90,000	165,436	89,842	135,269	100000	70000	225,000
Engineers	90,750	100,286	99,706	90,262	91,955	150000	60000	72,000
Administrators	68,000	61,875	65,588	62,360	77,750	40000	0	62,000
Other Professionals	72,000	48,000	84,942	73,000	71,857	30000	0	58,000
Technologists	89,800	48,250	60,698	54,524	75,500	0	35000	0
Technicians	72,000	33,500	62,098	47,619	48,500	0	0	0
Others Assoc. Professionals	0	0	52,700	45,000	46,500	0	0	50,000
Clerical support workers	32,500	26,625	25,885	22,171	31,425	0	17000	18,000
Craftsman and equivalent	22,000	21,000	30,879	24,500	37,500	0	0	16,000
Plant and machine operators and assemblers	52,528	30,000	37,258	25,103	30,033	0	14000	25,000
Cleaners, labourers, etc.	31,667	16,333	24,157	17,808	23,500	3000	8000	13,000

Source: LMOP field survey, 2012

Appendix 23: Frequency of yes or no responses on whether the respondents carry out identification of staff training needs (ITN) by manufacturing subsector

	Yes to ITN		No to ITN		
Subsectors	Freq.	%	Freq.	%	Total
Motor Vehicle	5	83	1	17	6
Electrical/Electronics	8	89	1	11	9
Food & Beverages	47	76	15	24	62
Pharmaceuticals & Chemicals	39	76	12	24	51
Non-Metallic	23	72	9	28	32
Textiles	8	80	2	20	10
Wood & Furniture	3	50	3	50	6
Rubber & Plastics	7	88	1.00	12	8
Total	140		44		184

Source: LMOP field survey, 2012

Appendix 24: Frequency with which the respondents conduct identification of training needs of their staff (ITN) by manufacturing subsector

Subsectors	Frequency of Conducting Identification of Training Needs						Total no. of resp.
	Occasionally		Annually		Others		
	No. of resp.	%	No. of resp.	%	No. of resp.	%	
Motor Vehicle	2	40	3	60	0	0	5
Electrical/Electronics	1	12.5	6	75	1	12.5	8
Food & Beverages	18	36.7	29	59.2	2	4.1	49
Pharmaceuticals & Chemicals	19	44.2	17	39.5	7	16.3	43
Non-Metallic	11	47.8	10	43.5	2	8.7	23
Textiles	7	77.8	1	11.1	1	11.1	9
Wood & Furniture	3	60.0	0	0.0	2	40.0	5
Rubber & Plastics	2	28.6	5	71.4	0	0.0	7

Source: LMOP field survey, 2012

Appendix 25: Mode of staff training adopted by respondents in the manufacturing sector

Mode of training	Freq. of responses	% of total
In-plant	26	16
Out-of-Plant	13	8
On-the-Job	73	46
All of the above	47	30
Total	159	100

Source: LMOP field survey, 2012

Appendix 26: Mode of staff training adopted by respondents in the manufacturing subsectors

Subsectors	Mode of Training Adopted								Total No. of resp.
	In-plant		Out-of-plant		On the job training		All of the above		
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	
Motor Vehicle	0	0	1	20	1	20	3	60	5
Electrical/Electronics	1	11	1	11	4	44	3	33	9
Food & Beverages	11	20	7	13	21	39	15	28	54
Pharmaceuticals & Chemicals	8	16	3	6	27	55	11	22	49
Non-Metallic	2	9	1	4	12	52	8	35	23
Textiles	3	33	0	0	3	33	3	33	9
Wood & Furniture	0	0	0	0	1	33	2	67	3

| Rubber & Plastics | 1 | 14 | 0 | 0 | 4 | 57 | 2 | 29 | 7 |
| Total | 26 | | 13 | | 73 | | 47 | | 159 |

Appendix 27: Numbers of staff for 2001 to 2011 and staff projections for 2013 to 2017 in the manufacturing sector

Occupational Group	2001	2003	2005	2007	2009	2011	2013	2014	2015	2016	2017
Managers	903	927	1053	1205	1350	1616	**871**	**933**	**1022**	**1156**	**1295**
Engineers	524	591	680	805	940	1169	**928**	**1004**	**1149**	**1296**	**1484**
Administrators	730	798	854	1098	1301	1569	**1135**	**1242**	**1390**	**1608**	**1846**
Other Professionals	246	261	314	441	650	717	**248**	**235**	**272**	**256**	**277**
Technologists	460	506	616	793	913	1057	**882**	**989**	**1138**	**1260**	**1457**
Technicians	1280	1219	1291	1432	1697	2029	**1139**	**1232**	**1415**	**1570**	**1799**
Others Assoc. Professionals	231	291	338	454	953	1054	**337**	**299**	**374**	**443**	**520**
Clerical support workers	1436	1609	1885	2213	2528	2915	**2421**	**2594**	**2864**	**3149**	**3565**
Craftsman and equivalent	862	1186	1371	1490	1756	1951	**1144**	**1144**	**1291**	**1394**	**1564**
Plant and machine operators and assemblers	6082	6330	6849	8915	8450	8649	**2408**	**2541**	**2753**	**3094**	**3457**
Cleaners, labourers, etc.	2698	2796	3321	3926	4296	4917	**3095**	**3381**	**3697**	**4059**	**4738**
	15452	16514	18572	22772	24834	27643	**14608**	**15594**	**17365**	**19285**	**22002**

Appendix 28: Hours worked per day by staff in the manufacturing sector by occupational group

Occupational Group	Motor Vehicles	Electrical	Food/ Bev	Pharm/ Chem.	Non-Metallic	Textile	Wood /Furn.	Rubber /Plastic
Managers	8.1	8.4	8.4	8.4	8.3	8.8	8.3	8.4
Engineers	8.1	8.7	8.8	8.4	8.2	9.2	8.5	8.0
Administrators	8.1	8.5	8.5	8.3	8.3	9.0	8.8	8.3
Others Professionals	8.2	8.3	8.2	8.2	8.5	8.0	0.0	9.0
Technologists	8.2	8.2	8.5	8.2	8.2	8.5	9.0	8.0
Technicians	8.1	9.1	8.5	8.5	8.2	9.1	8.4	8.3
Others Assoc. Pro	8.2	8.3	8.7	8.3	8.5	9.2	8.0	9.0
Clerical support workers	7.8	8.4	8.3	8.1	8.2	8.5	8.3	8.8
Craftsman & equivalent	8.3	8.3	8.1	8.3	8.1	8.4	7.8	8.3
Plant workers/assemblers	8.7	8.7	8.6	8.6	8.3	9.2	8.3	8.6
Cleaners, labourers,	7.7	8.6	8.3	8.1	8.2	9.1	8.3	8.3

etc.								

Appendix 29: Front pages of the Computerized Labour Market Information System Software (COLMIS) (from next page)
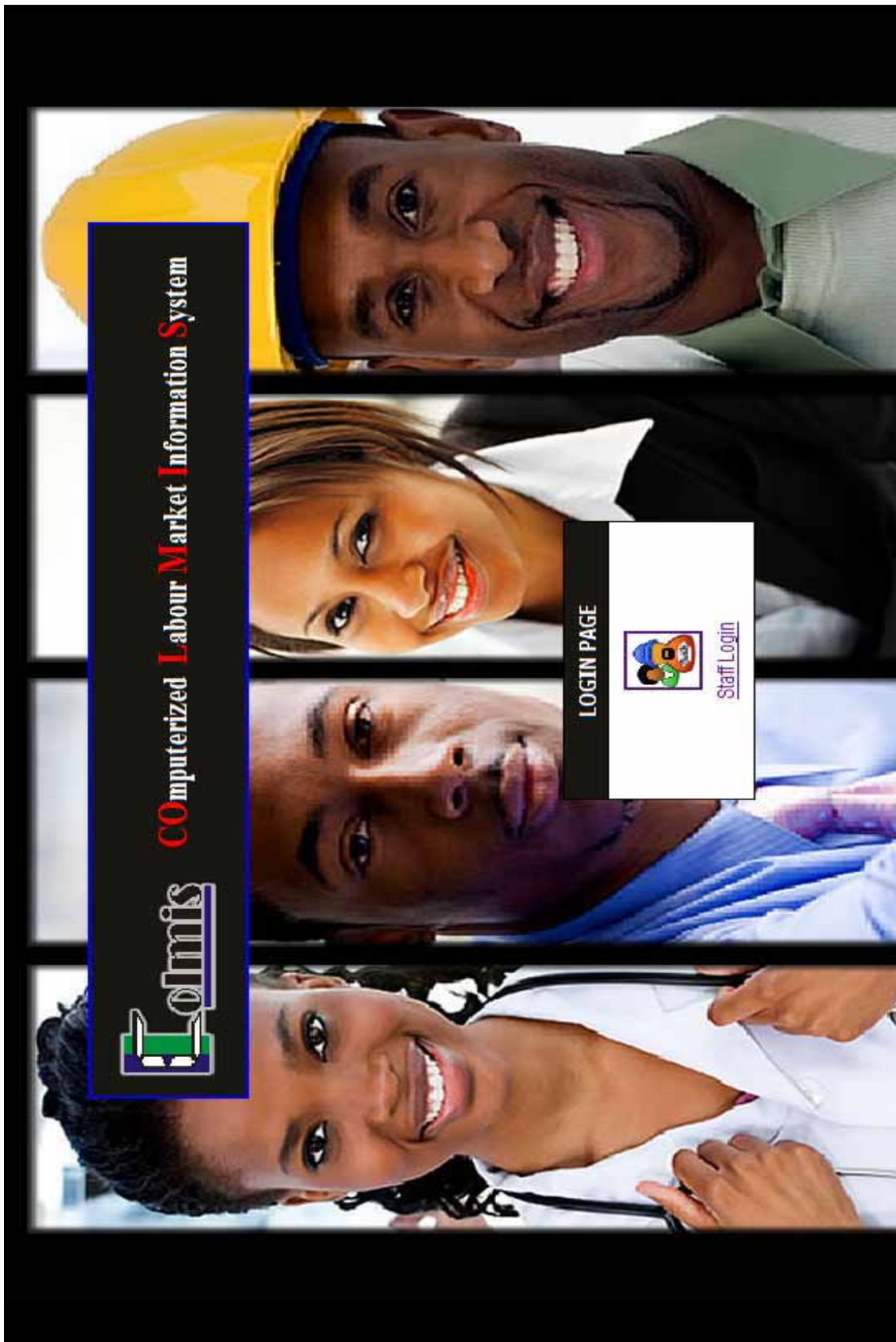
![olmis - COmputerized Labour Market Information System]

LABOUR MARKET OBSERVATORY PROJECT

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