## THE TANZANIA COMMISSION FOR UNIVERSITIES



## STATE OF UNIVERSITY EDUCATION IN TANZANIA 2018

July 2019

## State of University Education in Tanzania 2018

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ISBN: 978-9976-9353-9-0

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## Published by:

The Tanzania Commission for Universities Ministry of Education, Science and Technology Building, Ground Floor P.O. Box 6562, 7 Magogoni Street, 11479 Dar es Salaam

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## Abbreviations and Acronyms

| AJUCo | ArchBishop James University College |
| :--- | :--- |
| AKU | Aga Khan University |
| AMUCTA | Archbishop Mihayo University College of Tabora |
| ARU | Ardhi University |
| CARUMUCo | Cardinal Rugambwa Memorial University College |
| CFR | Certificate of Full Registration |
| CoA | Certificate of Accreditation |
| CUHAS | Catholic University of Health and Allied Sciences |
| DA | Director of Accreditation |
| DAD | Director of Admission Coordination and Data Management |
| DAQ | Director of Accreditation and Quality Assurance |
| DCS | Director of Corporate Services |
| DQA | Directorate of Quality Assurance |
| DUCE | Dar es Salaam University College of Education |
| ES | Executive Secretary |
| ESDP | Education Sector Development Programme |
| ESPJ | Education and Skills for Productive Jobs |
| ESPJ-PforR | Education and Skills for Productive Jobs Programme for Results |
| ETU | Eckernforde Tanga University |
| GoT | Government of Tanzania |
| HEAC | Higher Education Accreditation Council |
| HESLB | Higher Education Students' Loan Board |
| HKMU | Hubert Kairuki Memorial University |
| HLIs | Higher Learning Institutions |
| HROs | Human Resource Officers |
| IAE | Institute of Adult Education |
| ICT | Information and Communication Technology Medical and Technological University |
| IFM | Institute of Finance Management |
| IMS | InTU |

IRDP Institute of Rural Development Planning
JKUAT Jomo Kenyatta University of Agriculture and Technology
JOKUCo Josiah Kibira University College
JUCo Jordan University College
KCMUCo Kilimanjaro Christian Medical University College
KIUT Kampala International University in Tanzania
MARUCo Marian University College
MCHAS Mbeya College of Health and Allied Sciences
MJNUAT Mwalimu Julius K. Nyerere University of Agriculture and Technology
MMU Mount Meru University
MoCU Moshi Cooperative University
MoEST Ministry of Education, Science and Technology
MU Mzumbe University
MUCE Mkwawa University College of Education
MUCHST Mbeya University College of Health Sciences and Technology
MUCU Moshi Cooperative University
MUHAS Muhimbili University of Health and Allied Sciences
MUM Muslim University of Morogoro
MUST Mbeya University of Science and Technology
MWECAU Mwenge Catholic University
NACTE National Council for Technical Education
$\begin{array}{ll}\text { NDV } & \text { National Development Vision } \\ \text { NMAIST } & \text { Nelson Mandela African Institute of Science and Technology }\end{array}$
OUT Open University of Tanzania
Personal Secretaries
RUCU Ruaha Catholic University
SAUT St. Augustine University of Tanzania
SD Standard Deviation
SEKOMU
SFUCHAS St. Francis University College of Health and Allied Sciences
SJUCAST St. Joseph University College of Agricultural Science and Technology

| SJUCET | St. Joseph University College of Engineering and Technology |
| :--- | :--- |
| SJUCHAS | St. Joseph University College of Health and Allied Sciences |
| SJUCMC | St. Joseph University College of Management and Commerce |
| SJUIT | St. Joseph University in Tanzania |
| SJUT | St. John's University of Tanzania |
| SMMUCo | Stefano Moshi Memorial University College |
| STeMMUCo | Stella Maris Mtwara University College |
| SUA | Sokoine University of Agriculture |
| SUZA | State University of Zanzibar |
| SWOC | Strengths, Weaknesses, Opportunities, and Challenges |
| TCU | Tanzania Commission for Universities |
| TEKU | Teofilo Kisanji University |
| TIA | Tanzania Institute of Accountancy |
| TIU | Tanzania International University |
| ToR | Terms of Reference |
| TUDARCo | Tumaini University Dar es Salaam College |
| TUMA | Tumaini University Makumira |
| TVTs | Technical Verification Teams |
| UAUT | United African University of Tanzania |
| UDOM | University of Dodoma |
| UDSM | University of Dar es salaam |
| UIMS | University Information Management System |
| UoA | University of Arusha |
| UoB | University of Bagamoyo |
| UoI | University of Iringa |
| UQF | University Qualifications Framework |
| URT | United Republic of Tanzania |
| VC | Vice Chancellor |
| WB | World Bank |
| ZU | Zanzibar University |

## Preface

University education in Tanzania has changed in many dimensions since independence in 1961. The number of university institutions has grown from one (1) University College at the time of independence to 34 Full-Fledged Universities, 15 University Colleges and eleven (11) University Campuses, Centres and Institutes in 2018. This is exclusive of non-university institutions, which have also increased tremendously in the past two decades. In the early 1990s, the Government of Tanzania (GoT) created an enabling environment for participation of the private sector in the Higher Education sub-sector. Consequently, many Higher Learning Institutions (HLIs) were established at that time with the intent to increase access to university education countrywide. The increase in the number of universities has accelerated growth in both the number of programmes and students' population enrolled in universities ${ }^{1}$.

Further, the immense investment in education and other strategic initiatives that the GoT through the Ministry of Education, Science and Technology (MoEST) has been undertaking at various levels within the country's education system has also been serving as another underlying catalyst for the observed increase in the demand for university education in the country. Such initiatives include the establishment of the Education Sector Development Programme (ESDP) in 1996. ESDP aimed among other things to address the existing problems in the education sector. Others include the development of the new Education and Training Policy in 2014, which among other things stresses the need for quality education and training the standards of which are recognized at national, regional and global levels, and production of human resources according to national development priorities.

For a developing economy like Tanzania, the provision of quality education is indispensable in order to produce well-trained human resources to respond not only to national development needs consistent with the National Development Vision (NDV) 2025 and other national development objectives, but also to existing and emerging regional and global labour market demands.

The observed increasing trend in the population of university institutions in Tanzania in the past recent decades requires corresponding concerted efforts by all stakeholders in order to ensure that indeed, graduates from these institutions are of acceptable quality to meet the labour market needs. The Tanzania Commission for Universities (TCU), which is charged with the responsibility of regulating the provision of university education in the country, will continue to provide relevant information regarding university education in the country, devising suitable instruments and monitor their implementation by user institutions consistent with the Universities Act, Cap 346 of the Laws of Tanzania.

[^0]This book on the State of University Education in Tanzania 2018 is the first of its kind in the sense that it puts together critical information on various aspects concerning university education in Tanzania to permit an understanding of the status of such education in the country. In producing this book, the most important aspects that characterize a university institution have been considered. These include profiles of academic and administrative staff, programmes on offer, students' admission and enrolment, and trends of graduates by field of specialization. Therefore, I appeal to all stakeholders (Government Ministries, Departments and Agencies, Development Partners, university institutions' management, staff, students, parents, the private sector and the general public) interested in university education to read this book carefully so that they can make evidence-based decisions when need arises.

Finally, I wish to stress that ensuring and enhancing quality in higher education institutions is a complex venture and hence, its success requires concerted efforts of various stakeholders. Let us continue working together with the common goal of producing graduates who are capable of solving societal problems for socio-economic transformation and sustainable development of our country in particular, and who are competitive regionally and globally. This can only be realized if we continue adhering to best practices, approved quality assurance guidelines and standards as well as other central instruments that govern the provision of university education in the country. It is my personal view that complying with set quality assurance standards is perhaps, the best alternative that an individual university should do in order to sustain its credibility within the changing higher education landscape in which stakeholders including employers are increasingly becoming sensitive to quality education.


Prof. Jacob P. Mtabaji
CHAIRMAN
The Tanzania Commission for Universities

Dar es Salaam
July 2019

## Acknowledgements

This book on the State of University Education in Tanzania 2018 has been made possible through determined efforts of various organisations and individuals. First and foremost, I would like to express my sincere gratitude to the Government of Tanzania (GoT) for financing university education in the country in various ways including through the Higher Education Students' Loan Board (HESLB) and other associated subventions.

Second, the data collection, analysis and production activities of this book were largely financed by the World Bank (WB) through the auspices of the Education and Skills for Productive Jobs Programme for Results (ESPJ-PforR) under the Ministry of Education, Science and Technology (MoEST). Accordingly, I would like to thank the WB for its support.

Third, I am grateful to the Chairman and members of the Commission (TCU) for their guidance and ensuring that TCU performs its functions commensurate with the mandates it was established for. Equally, I wish to thank the Chairpersons and members of the Accreditation Committee, Grants Committee and Admissions Committee for their enthusiasm and advice, which have always been geared towards ensuring that TCU achieves its vision and mission effectively and efficiently to meet the expectations of stakeholders at various levels.

Fourth, this book would have not been reached this level without optimal cooperation from the university institutions during the course of data collection. In this regard, the top management of all institutions, which were involved in the physical verification by the teams from TCU, staff and students from the institutions, are highly appreciated.

Fifth, I feel indebted to all Technical Verification Teams (TVTs) of TCU for their commitment and conforming to set data collection processes and standards throughout the entire data collection missions in the respective Universities. I am also grateful to the persons who reviewed and provided valuable comments and suggestions, which improved on the draft versions of this book.

Sixth, I wish to thank the team and all those who, in one way or the other, took part in the data processing, analysis and writing this book. In particular, I am grateful to Dr. Kokuberwa Katunzi-Mollel, Director of Admissions Coordination and Data Management (DAD) for conceiving the idea of producing this publication and spearheading the process of data collection, analysis and development of this book. Equally, I am indebted to Dr. Fulgence Matimbo, by then Acting Director of Accreditation and Quality Assurance (DAQ) and Mr. Mabula G. Mabula, Director of Corporate Services (DCS) for providing necessary technical and administrative support at various stages during the pursuit for production of this book.

Last, but not at all least, I am indebted to Dr. Telemu Kassile, by then serving as Principal Accreditation Officer, now Director of Accreditation (DA) for his tireless efforts in writing this book professionally and diligently.


Prof. Charles D. Kihampa
EXECUTIVE SECRETARY
The Tanzania Commission for Universities
Dar es Salaam
July 2019

## Introduction

Today's good decisions are driven by data. This has become a basic requirement in almost every area of activity ${ }^{2}$ at both micro and macro levels. Government bureaucrats, professionals and Chief Executive Officers (CEOs) of corporations are increasingly required to vindicate decisions they make (whether economic, social or political) based on data that come from credible sources. Increased public awareness on the dominant role that education plays in the future socio-economic development (ceteris paribus) of an individual and the nation at large, has made parents/guardians to become ever more demanding for information from various sources that are available at their disposal to facilitate their decisions about investments in the human capital development of their children or relatives. However, it must be stressed at this juncture that, not every source of information is reliable to permit drawing apt decisions without much considerations.

In recognition of the above facts, the Tanzania Commission for Universities (TCU) has decided to publish this book in order to inform stakeholders about the state of university education in Tanzania. This book gives important statistics covering a diversity of aspects that reflect a higher learning institution context. It serves as a one-stop source of basic statistics on university education, the prime objective being to provide a complete understanding of the status quo of university education in the country. This is consistent with the provisions of Section 5(1) (b) \& (d) of the Universities Act, Cap 346 of the Laws of Tanzania, which gives TCU inter alia, the mandate to collect, examine, store in databases or databanks and publish information relating to higher education, research and consultancy in the country.

The data used in this book were collected from university and non-university institutions between $5^{\text {th }}$ March and $2^{\text {nd }}$ June 2018. However, for non-university institutions, only statistics on some aspects, namely students' admission and enrolment are presented in this book. This restriction is made in recognition of the fact that TCU only coordinates admissions of students into various Bachelor degree programmes that are offered by non-university institutions, but the legal mandate to regulate the provision of technical education in the country is under the National Council for Technical Education (NACTE).

The data were collected using a standardized data collection checklist Institutional Regular Quality Audit Tool that was prepared and administered by the TCU Secretariat. Information sought from the institutions included administrative and academic staff registers and their employment statuses as well as a register of continuing students showing their programmes and years of study. Others were a list of graduates from the 2012/2013 to 2016/2017 academic years, inventories of all accredited programmes offered by the institution and a list of all students who dropped out of studies for whatever reasons.

[^1]Data processing and analysis involved a series of steps including consolidation of information collected from the various institutions; crosschecking validity and precision of the collected data aligned with the data available in the TCU's database. Furthermore, descriptive measures such as frequencies and corresponding percentages were estimated and used to summarize the data. Graphical presentations were also often used to summarize the data. The draft book was subjected to a one-day dissemination workshop that was attended by representatives of university institutions. Comments and suggestions raised during the workshop were incorporated into the final version of the book.

This book is structured into thirteen (13) chapters. Chapter One provides a succinct synopsis of the TCU, concentrating on its establishment and functions, vision and mission, motto, core values as well as legal and policy instruments that inform the Commission during the execution of its functions.

Chapter Two provides a list of university institutions that are recognized to operate in the United Republic of Tanzania (URT). The Chapter covers both public and private university institutions alongside their locations in the URT.

Chapters Three, Four and Five, respectively give statistics on governance and management in university institutions, number and qualifications of academic and administrative staff and their employment statuses. Information on academic programs that are offered in university institutions is provided in Chapter six.

Chapter Seven presents information on undergraduate students' admission in the institutions. Analysis of students' enrolment and trends of graduates in these institutions from the 2012/2013 to 2016/2017 academic years are presented in Chapters Eight and Nine, respectively.

Chapter Ten gives information on students' dropout in university institutions while Chapters Eleven and Twelve present information on undergraduate students' admission in higher learning institutions (considering both university and non-university institutions) and students' enrolment in non-university institutions, respectively.

Chapter Thirteen presents the conclusions based on the analysis results presented in Chapters two through twelve.

## CHAPTER 1

## About The Tanzania Commission for Universities

### 1.1 Establishment

The Tanzania Commission for Universities (TCU) is a body corporate that was established on $1^{\text {st }}$ July 2005 through the Universities Act, Cap 346 of the Laws of Tanzania with the mandate of recognizing, approving, registering and accrediting Universities operating in Tanzania, and local or foreign university level programmes that are offered by registered higher education institutions (HEIs) in the country. In addition, TCU coordinates the proper functioning of all university institutions in Tanzania so as to foster a harmonized higher education system in the country.

TCU succeeded the then Higher Education Accreditation Council (HEAC) which was established in 1995 through the Education Act with a legal mandate to regulate the establishment and subsequent accreditation of private university institutions in the country. The mandate of HEAC was narrow in scope as it was restricted to only regulate the establishment and accreditation of private universities. This was thus, considered not favourable for the promotion of a feasible Public-Private Partnership (PPP) in higher education as stipulated in the National Higher Education Policy of 1999, Cap 523.

### 1.2 Functions

The functions of the Commission are provided under Section 5(1) of the Universities Act, Cap 346 of the Laws of Tanzania. Unlike HEAC, TCU has a wider spectrum of mandates for it oversees institutional management processes for all Universities (public and private) in the country. Overall, TCU's legal mandates can be clustered into three broad and distinct categories, namely regulatory, advisory and supportive.

Regulatory: TCU conducts periodic evaluation of Universities, their systems and programmes so as to regulate the quality assurance systems at new and established Universities and in the process, institutions are registered and accredited to operate in Tanzania. TCU also validates programmes to ensure their credibility and evaluates for recognition university qualifications attained from local and foreign institutions for use in Tanzania.

Advisory: TCU advises the Government and the public on matters related to higher education in Tanzania as well as international issues pertaining to higher education, including advice on program and policy formulation and other best practices.

Supportive: TCU ensures the orderly conduct of university operations and management adherence to set standards and benchmarks by providing support to universities in terms of coordinating the admission of students, offering training and other sensitization interventions in key areas like quality assurance, university leadership and management, fund raising and resources mobilization, entrepreneurial skills and gender mainstreaming.

The above functions are integrated and reflected in the vision and mission statements as well as the core values of TCU.

### 1.3 Policy and Legal Frameworks

TCU executes its mandates based on two major legal instruments, namely The Universities Act, Cap 346 of the Laws of Tanzania and the Universities (General) Regulations, G.N. No. 226 of 2013. Regarding policy framework, the Education and Training Policy, 2014, inform the major policy directives on higher education. In addition, from time to time, the Commission has been issuing a number of policy guidelines to Universities and the public on all matters related to the provision of higher education in Tanzania.

### 1.4 Vision and Mission

TCU aspires "To become a leading regional higher education regulatory agency supporting systematic growth and excellence of university education" with a Mission "To promote accessible, equitable, harmonized and quality university education systems".

### 1.5 Motto

Universities for Prosperity.

### 1.6 Core Values

As a regulatory agency of university education in the country that envisions being a leading higher education regulatory agency in the region, in carrying out its mandates, TCU adheres to the following core values: transparency, efficiency, integrity, tolerance, accountability, and integrity.

### 1.7 Organization Structure

Administratively, TCU is headed by the Executive Secretary (ES) who is the CEO of the organisation. He /she is appointed by the Commission from amongst persons with qualifications, skills and competence through procedures involving public advertisement and interviews for the post. Accordingly, he is responsible to the Commission on routine running of the organisation. The roles of the ES are described in Section 13(2) of the Universities Act, Cap 346 of the Laws of Tanzania, which are to manage day-to-day operations of the Commission and its Committees, and to carry out such functions as the Commission shall prescribe. Further, policy decisions regarding the provision of university education in the country are made by the Commission, which is the highest decision-making body
of the institution as revealed in the organisation structure of the Commission presented in Figure 1.


Figure 1: Organisation structure of the Tanzania Commission for Universities

## CHAPTER 2

## University Institutions in Tanzania

### 2.1 Types of University Institutions

In Tanzania, university institutions are grouped into three main types, namely Full-Fledged Universities, University Colleges, and University Campuses, Centres and Institutes. Currently, there are thirty-four (34) Full-Fledged Universities, fifteen (15) University Colleges, and eleven (11) University Campuses, Centres and Institutes. Table 1 provides the types of university institutions that are recognized to operate in the United Republic of Tanzania (URT) and their corresponding percentages of the total number.

University institutions have increased tremendously - from one (1) University College in 1961 to the current 49 Universities (34 Full-Fledged University and 15 University Colleges) ${ }^{3}$.

Table 1: Total number of university institutions by type in the URT

| SN | Institution Type | Number | Percent |
| :---: | :--- | :---: | :---: |
| 1 | Full-Fledged Universities | 34 | 56.7 |
| 2 | University Colleges | 15 | 25.0 |
| 3 | University Campuses, Centres and | 11 |  |
|  | Institutes |  | 18.3 |
|  | Total | 60 | 100.0 |

Figure 2 provides a summary of university institutions in Tanzania by ownership (public versus private). Detailed analysis of the universities including year of establishment and location in Tanzania is provided in Sections 2.1.1 through 2.1.6.


Figure 2: University institutions recognized to operate in the United Republic of Tanzania by ownership

[^2]
### 2.1.1 Public Full-Fledged Universities

Out of the total 34 Full-Fledged Universities that are recognized to operate in Tanzania as presented in Table 1, 12 (35.3\%) are public universities. These are listed in Table 2. However, as indicated in Table 2, Mwalimu Julius K. Nyerere University of Agriculture and Technology (MJNUAT) is still in the preparatory stages thus, does not currently offer any academic programmes.

Table 2: Public Full-Fledged Universities recognized to operate in the URT

| SN | Name of University | Approved Acronym | Year <br> Founded ${ }^{4}$ | Head Office |
| :---: | :---: | :---: | :---: | :---: |
| 1 | University of Dar es salaam | UDSM | 1961 | Dar es Salaam |
| 2 | Mzumbe University | MU | 1972 | Morogoro |
| 3 | Sokoine University of Agriculture | SUA | 1984 | Morogoro |
| 4 | Open University of Tanzania | OUT | 1992 | Dar es Salaam |
| 5 | State University of Zanzibar | SUZA | 1999 | Zanzibar |
| 6 | Nelson Mandela African Institution of Science and Technology | NM-AIST | 2005 | Arusha |
| 7 | Muhimbili University of Health and Allied Sciences | MUHAS | 2007 | Dar es Salaam |
| 8 | Ardhi University | ARU | 2007 | Dar es Salaam |
| 9 | University of Dodoma | UDOM | 2007 | Dodoma |
| 10 | Mbeya University of Science and Technology | MUST | 2012 | Mbeya |
| 11 | Mwalimu Julius K. Nyerere University of Agriculture and Technology | MJNUAT | 2012 | Musoma |
| 12 | Moshi Cooperative University | MoCU | 2014 | Kilimanjaro |

[^3]
### 2.1.2 Private Full-Fledged Universities

Private Full-Fledged Universities account for the majority of universities in Tanzania. Twenty-two (64.7\%) of the total 34 universities in Tanzania as presented in Table 1 are privately owned. These are listed in Table 3 along with their location in Tanzania.

Table 3: Private Universities recognized to operate in the URT

| SN | Name of the Institution | Approved Acronym | Year Founded | Head Office |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Hubert Kairuki Memorial University | HKMU | 1996 | Dar es Salaam |
| 2 | International Medical and Technological University | IMTU | 1996 | Dar es Salaam |
| 3 | University of Iringa | UoI | 1996 | Iringa |
| 4 | St. Augustine University of Tanzania | SAUT | 1998 | Mwanza |
| 5 | Zanzibar University | ZU | 1998 | Zanzibar |
| 6 | Tumaini University Makumira | TUMA | 1999 | Arusha |
| 7 | Aga Khan University | AKU | 2000 | Dar es Salaam |
| 8 | Mount Meru University | MMU | 2002 | Arusha |
| 9 | Catholic University of Health and Allied Sciences | CUHAS | 2003 | Mwanza |
| 10 | University of Arusha | UoA | 2003 | Arusha |
| 11 | Eckernforde Tanga University | ETU | 2004 | Tanga |
| 12 | St. Joseph University in Tanzania | SJUIT | 2004 | Dar es Salaam |
| 13 | Teofilo Kisanji University | TEKU | 2004 | Mbeya |
| 14 | Muslim University of Morogoro | MUM | 2005 | Morogoro |
| 15 | Sebastian Kolowa Memorial University | SEKOMU | 2007 | Tanga |
| 16 | St. John's University of Tanzania | SJUT | 2007 | Dodoma |
| 17 | Kampala International University in Tanzania | KIUT | 2009 | Dar es Salaam |
| 18 | University of Bagamoyo | UoB | 2009 | Dar es Salaam |
| 19 | United African University of Tanzania | UAUT | 2011 | Dar es Salaam |
| 20 | AbdulRahman Al-Sumait Memorial University | SUMAIT | 2013 | Zanzibar |
| 21 | Mwenge Catholic University | MWECAU | 2014 | Kilimanjaro |
| 22 | Ruaha Catholic University | RUCU | 2014 | Iringa |

### 2.1.3 Public University Colleges

Out of the total 15 University Colleges, only 3 (20.0\%) are public owned. Table 4 presents a list of these University Colleges, their corresponding institution of affiliation and location in Tanzania.

Table 4: Public University/Campus Colleges recognized to operate in the URT

| SN | Name of the Institution | Approved Acronym | Affiliation | Year Founded | Head Office |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Mkwawa University College of Education | MUCE | University College under UDSM | 2005 | Iringa |
| 2 | Dar es Salaam University College of Education | DUCE | University College under UDSM | 2005 | Dar es Salaam |
| 3 | Mbeya College of Health and Allied Sciences ${ }^{5}$ | MCHAS | Campus College under UDSM | 2018 | Mbeya |

### 2.1.4 Private University Colleges

Out of the total 15 University Colleges presented in Table 1, 12 (80.0\%) are private owned. Table 5 presents a list of these private University Colleges, their corresponding institution of affiliation and location in Tanzania.

Table 5: Private University Colleges recognized to operate in the URT

| SN | Name of the Institution | Approved Acronym | Year Founded | Affiliation | Head Office |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Kilimanjaro Christian Medical University College | KCMUCo | 1996 | University College under TUMA | Kilimanjaro |
| 2 | Tumaini University Dar es Salaam College | TUDARCo | 1997 | University College under TUMA | Dar es Salaam |
| 3 | Stefano Moshi Memorial University College | SMMUCo | 2007 | University College under TUMA | Kilimanjaro |
| 4 | Archbishop Mihayo University College of Tabora | AMUCTA | 2010 | University College under SAUT | Tabora |
| 5 | Jordan University College | JUCo | 2010 | University College under SAUT | Morogoro |
| 6 | St. Francis University College of Health and Allied Sciences | SFUCHAS | 2010 | University College under SAUT | Morogoro |
| 7 | Cardinal Rugambwa Memorial University College | CARUMUCo | 2011 | University College under SAUT | Kagera |
| 8 | Stella Maris Mtwara University College | STeMMUCo | 2011 | University College under SAUT | Mtwara |
| 9 | Josiah Kibira University College | JOKUCo | 2012 | University College under TUMA | Kagera |
| 10 | ArchBishop James University College | AJUCo | 2013 | University College under SAUT | Ruvuma |
| 11 | Marian University College | MARUCo | 2015 | University College under SAUT | Coast |
| 12 | St. Joseph University College of Health and Allied Sciences | SJUCHAS | 2015 | University College under SJUIT | Dar es Salaam |

[^4]
### 2.1.5 Public University Campuses, Centres and Institutes

Out of the total eleven (11) University Campuses, Centres and Institutes, 3 (27.3\%) are public owned. Table 6 presents a list of these public University Campuses, Centres and Institutes, their corresponding institution of affiliation and location in Tanzania.

Table 6: Public University Campuses, Centres and Institutes recognized to operate in the URT

| SN | Name of the Institution | Approved <br> Acronym | Year <br> Founded | Affiliation | Head Office |
| :---: | :--- | :--- | :---: | :--- | :--- |
| 1 | Institute of Marine | IMS | - | University <br> institute under | Zanzibar |
|  | Sciences |  |  | UDSM |  |
| 2 | Mzumbe University | Pending | 2005 | University <br> Campus under | Dar es Salaam |
|  | Dar es Salaam Campus |  |  | MU |  |
| 3 | Mzumbe University <br> Mbeya Campus | Pending | 2006 | University <br> Campus under <br> MU | Mbeya |

### 2.1.6 Private University Campuses, Centres and Institutes

Out of the total eleven (11) University Campuses, Centres and Institutes, 8 (72.3\%) are private owned. Table 7 presents a list of these private University Campuses, Centres and Institutes, their corresponding institution of affiliation as well as location in Tanzania.

## Table 7: Private University Campuses, Centres and Institutes recognized to operate in the URT

| SN | Name of the Institution | Approved <br> Acronym | Year <br> Founded | Affiliation | Head Office |
| :---: | :--- | :---: | :---: | :--- | :---: |
| 1 | St. John's University of Tanzania <br> 2 | Pending <br> Jomo Kenyatta University of <br> Agriculture and Technology <br> (JKUAT) Arusha Centre | JKUAT | 2009 | University Centre under <br> SJUT |
| 3 | Teofilo Kisanji University <br> Dar es Salaam Centre | Pending | 2011 | University Centre under <br> Jomo Kenyatta University of <br> Mount Meru University Mwanza | Pending |

It is worthwhile mentioning herein that nine (9) private University Centres (not listed in Table 7) which were operating in the United Republic of Tanzania before December 2018, their establishments have been revoked by the Commission due to quality assurance issues. Names and dates of disestablishment of the institutions are listed in Table 8.

## Table 8: Disestablished university institutions

| SN | Name of institution | Date of disestablishment |
| :---: | :--- | :--- |
| 1 | Tanzania International University (TIU) | $5^{\text {th }}$ February, 2016 |
| 2 | St. Joseph University College of Agricultural Science and | $5^{\text {th }}$ February, 2016 |
|  | Technology (SJUCAST) |  |
| 3 | St. Joseph University <br>  <br> Technology (SJUCIT) | College of |
| 4 | St. Joseph University in Tanzania (SJUIT)-Arusha Campus | and |
| $55^{\text {th }}$ February, 2016 |  |  |
| 5 | Kenyatta University (KU) Arusha Centre | $3^{\text {st }}$ December, 2017 |
| 6 | Tumaini University Makumira (TUMA) Mbeya Centre | $5^{\text {th }}$ July, 2018 |
| 7 | Teofilo Kisanji University (TEKU) Tabora Centre | $12^{\text {th }}$ September, 2018 |
| 8 | St. John's University of Tanzania (SJUT) Msalato Centre | $12^{\text {th }}$ September, 2018 |
| 9 | Stefano Moshi Memorial University College (SMMUCo) | $25^{\text {th }}$ October, 2018 |
|  | Town Centre |  |

### 2.2 Summary

The present chapter provided an overview of the numbers and locations of university institutions that are recognized to operate in Tanzania. Statistics in this chapter have revealed that in Tanzania, both the public and the private sectors have a significant contribution in the provision of university education in the country. Additionally, a remarkable observation is that a significant proportion of university institutions in Tanzania are private owned. The analysis revealed that, of the total 60 university institutions, 41 (68.3\%) are private and the remaining 19 (31.7\%) are public owned. This difference is consistent across all types of university institutions. That is, the numbers of private Full-Fledged Universities ( $\mathrm{n}=22$; 64.7\%), University Colleges ( $\mathrm{n}=12$; 80.0\%), University Campuses, Centres and Institutes ( $\mathrm{n}=8 ; 72.7 \%$ ) are comparatively higher than that of their public counterparts.

The observations in this chapter have several policy implications. These include: First, the observed increased number of university institutions calls for more investment in quality assurance systems in order to ensure that indeed, there is equitable, harmonized and quality university education system that can contribute to the realization of the NDV 2025, which envisages to transform the country into a middle income country that is characterized among other things, by high quality livelihood and a well-educated and learning society. Second, the increased demand for university education is an apparent proxy for increased public awareness of the importance of higher education for socio-economic development ${ }^{6}$. Therefore, in a resource constrained environment, it is important that relevant and latest information on university education be made available to aid individuals' decision-making processes whenever it deems necessary.

[^5]
## CHAPTER 3

## Governance and Management in University Institutions

### 3.1 Introduction

In Chapter Two, the focus was on the number of university institutions that are recognized to operate in the URT and their associated registration statuses. In this chapter, the focus is on governance and management in university institutions. The quality of leadership in higher education institutions has been a subject of intense discussion since the $1980 \mathrm{~s}^{7}$. Increasing student population, changes in funding models for higher education students, increased marketization, and continuing globalization of the sector are among the key factors that have triggered the need for effective leadership of higher education institutions. In recognition of this fact, TCU has been among other things, monitoring qualities of top management of university institutions on the understanding that it plays a pivotal role in the smooth day-to-day operations, guiding the development process including management of institutional human and financial resources, policy-making (initiating policy change or formulation) and hence, ensuring growth and sustainable development consistent with the vision and mission of the institution.

In view of the above contextual information, assessment of governance and administration with reference to the top management as per set standards was considered indispensable in this publication. However, the analysis of adequacy of Top Management considered only Universities (Full-Fledged Universities and University Colleges).

As per Section 36 (3) of the Universities Act, Cap 346 of the Laws of Tanzania, a qualified Vice Chancellor must be a Full Professor, Associate Professor, or a Senior Academician. On the other hand, a Deputy Vice Chancellor is required to be a Full Professor or Associate Professor. The later requisite qualifications are also applicable to the position of Deputy Principal/Provost.

Based on the previously mentioned legal framework, the principal organs of governance in university institutions (Universities, University Colleges and Campuses) are described in details in Section 43 (1) of the Universities Act 2005. On the other hand, as revealed hitherto and consistent with Part V of the Universities Act 2005, administration of a university institution includes the Chancellor, Vice Chancellor, Deputy Vice Chancellor, Principal of a University College, Deputy Principals, Director, Deputy Director and Registrar. However, in the context of this book, university institutions' top management was restricted to the Vice Chancellor, Deputy Vice Chancellors, Principals/Provosts, and Deputy Principals/Provosts.

The analysis in this chapter used data collected from 45 University institutions (32 Full-Fledged Universities and 13 University Colleges). Two (2) Full-Fledged

[^6]Universities, namely University of Bagamoyo and Mwalimu Julius K. Nyerere University of Agriculture and Technology did not provide information, as they were not academically active at the time of execution of the academic audit in June 2018. Further, two University Colleges, namely Mbeya College of Health and Allied Sciences (MCHAS), and St. Joseph University College of Health and Allied Sciences (SJUCHAS) did not also provide data. The former (MCHAS), was in its early stages of establishment, thus, was considered not to have adequate information while information for the latter (SJUCHAS) was collected from the mother university (i.e., St. Joseph University in Tanzania).

### 3.2 Institutional Governance

Table 9 provides statistics on adequacy of qualified top management. As the table shows, at the time of data collection, some university institutions had inadequate qualified top management as per the set quality standards. Among Full-Fledged University institutions, private institutions were more likely to have at least one unqualified (as per the aforementioned requisite qualifications) top management staff compared to their counterpart public university institutions ( $76.2 \%$ private against $18.9 \%$ public). On the other hand, all two (100\%) public University Colleges had qualified top management as compared to only slightly more than a quarter (27.2\%) of the total private University Colleges.

Table 9: Adequacy of qualified top management in universities

|  | Institution type | Number of <br> University <br> institutions | Number of <br> University <br> institutions with <br> adequate qualified <br> top management | Percentage of <br> the total <br> institutions <br> within the type |
| :--- | :--- | :---: | :--- | :---: |
| 1 | Public Full-Fledged Universities | 11 | 9 | 81.8 |
| 2 | Private Full-Fledged Universities | 21 | 5 | 23.8 |
| 3 | Public University Colleges | 2 | 2 | 100.0 |
| 4 | Private University Colleges | 11 | 3 | 27.8 |
|  | Total | 45 | 19 | $42.2 \%$ |

It is expected that the statistics presented in Table 9 might have changed due to continued compliance (by the university institutions) to established quality assurance standards that are constantly being enforced by the Commission. Meanwhile, the fact that most of the privately owned institutions did not have qualified top management suggests that such institutions have perhaps failed to attract qualified senior academicians.

### 3.2.1 Institutional Governance Tools

The analysis aimed to assess the availability and validity of various governance tools. The governance tools assessed are listed in Box 1. These tools coupled with assessment of adequacy of top management were considered critical for effective and efficient operations and sustainability (ceteris paribus) of the institutions. These tools were considered as critical guiding principles for effective and efficient operations and sustainability (ceteris paribus) of Universities. For example, a Corporate Strategic Plan provides a strategic direction in which the
institution is heading through setting priorities and plans to implement them to meet the institution's goals consistent with its vision and mission.

## BOX 1: University governance tools

$\checkmark$ Admission Regulations
$\checkmark$ Consultancy Services Policy
$\checkmark$ Examination Regulations
$\checkmark$ Facilities' Inventory and Maintenance Policy/Manual
$\checkmark$ Financial Regulations
$\checkmark$ Human Resources Policy/Manual
$\checkmark$ ICT Policy
$\checkmark$ Land Use Master Plan
$\checkmark$ Online Admission System
$\checkmark$ Quality Assurance Office/Directorate
$\checkmark$ Quality Assurance Policy
$\checkmark$ Recent Prospectus
$\checkmark$ Research Policy
$\checkmark$ Rolling Strategic Plan
$\checkmark$ Staff Recruitment, Promotion and Development Policy/Manual
$\checkmark$ Student By-Laws/Handbook
$\checkmark$ Student Support Services Manual
$\checkmark$ Students' Association
$\checkmark$ Workers' Union

Table 10 presents the degree of existence of these tools in Full-Fledged Universities and their constituent colleges. Notable differences in terms of availability of governance tools were observed to exist between and within types of institution. Detailed analysis of the extent of existence of some of the tools is provided in the following subsections

### 3.2.1.1 Rolling strategic and land use master plans

The findings revealed that Rolling Strategic Plans were available in all public university institutions irrespective of type of institution. This was different from private university institutions. It was observed that some of them (14\% and 9\% for Full-Fledged Universities and University Colleges, respectively) lacked this important document while some of them had it in draft form ( $10 \%$ and $9 \%$ of all Full-Fledged Universities and University Colleges, respectively). Further to that, 5\% of the private Full-Fledged Universities had outdated Rolling Strategic Plans while the two (2) public University Colleges had no land use master plans (Table 10).

### 3.2.1.2 Admission and examination regulations

It was imperative to find out if universities had in place admission and examination regulations. These documents are considered critical in the determination of the quality of academic output. Whereas the later sets standards to measure the quality of admitted students, the presence of later determines the quality of assessment and ultimately the final product of a university. It was observed that all public institutions had in place admission and examination regulations. In contrast, only examination regulations were available in all private University Colleges. Of the total 21 private Full-Fledged Universities, 3 (about $14 \%$ ) and 1 (5\%) had no admission and examination regulations, respectively. Moreover, of the total 11 private University Colleges, 2 (18\%) had no evidence of existence of admission regulations. At that point in time, online admission systems were not available in some $24 \%$ and $9 \%$ of the private Full-Fledged Universities and University Colleges, respectively. Contrary to the previous finding, all public university institutions had online admission systems.

### 3.2.1.3 Quality assurance office/unit and policy

The findings showed that all public university institutions visited had a designated place or established a unit for quality assurance matters and had a quality assurance policy. Equally, all 11 University Colleges had a designated place or office for quality assurance. In contrast, $24 \%$ and $19 \%$ of the private Full-Fledged Universities had not established a quality assurance unit or directorate and they had not developed a quality assurance policy, respectively while $9 \%$ of the private University Colleges had not developed a quality assurance policy.

### 3.2.1.4 Financial regulations

Financial stability of an institution is essential for sustainability of services offered by the institution. This depends partly on the existence of effective financial regulations. In this regard, it was also considered important to gather information regarding existence of financial regulations in university institutions. The findings revealed that all public institutions and private University Colleges visited had financial regulations. However, 19\% of the total eleven (11) private Full-Fledged Universities had no financial regulations (Table 10).

### 3.2.1.5 Students' support services manual

Unlike the other governance tools, there were limited documentations to ascertain existence of support services to students during their academic stay at the institution. Of the total public and private Full-Fledged Universities, slight above half ( $55 \%$ and $57 \%$ for public and private, respectively) had students' support services manuals. Furthermore, about two-thirds (64\%) of the total private University Colleges had no students' support services manuals. Other details are as summarized in Table 10.

Table 10: Governance tools (percentage) available in university institutions

| Institution type | Status |  |  |  |  | $\begin{aligned} & \text { Staff Recruitment, Promotion and } \\ & \text { Development Policy/Manual } \end{aligned}$ |  |  | Examination Regulations |  |  |  |  |  | $\begin{aligned} & \text { 응 } \\ & \text { 는 } \end{aligned}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Public Institutions ( $\mathrm{n}=11$; 34.4\%) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Available | 100 | 64 | 82 | 91 | 91 | 100 | 100 | 100 | 55 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
|  | Not available | 0 | 36 | 18 | 9 | 9 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Draft | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Full-Fledged Universities | Outdated | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $(\mathrm{n}=32) \quad$ Private Institutions ( $\mathrm{n}=21 ; 65.6 \%$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Available | 71 | 48 | 48 | 67 | 90 | 76 | 86 | 95 | 57 | 95 | 76 | 76 | 90 | 76 | 86 | 52 | 71 | 48 | 90 |
|  | Not available | 14 | 52 | 52 | 24 | 5 | 24 | 14 | 5 | 43 | 0 | 24 | 19 | 10 | 14 | 5 | 38 | 19 | 52 | 10 |
|  | Draft | 10 | 0 | 0 | 10 | 5 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 10 | 10 | 10 | 10 | 0 | 0 |
|  | Outdated | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Public Institutions ( $\mathrm{n}=2 ; 15.4 \%$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Available | 100 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
|  | Not available | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Draft | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| University Colleges | Outdated | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $(\mathrm{n}=13) \quad$ Private Institutions ( $\mathrm{n}=11$; 84.6\%) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Available | 82 | 55 | 64 | 73 | 82 | 91 | 82 | 100 | 36 | 91 | 100 | 91 | 100 | 82 | 82 | 73 | 100 | 64 | 91 |
|  | Not available | 9 | 45 | 36 | 27 | 9 | 9 | 18 | 0 | 64 | 9 | 0 | 9 | 0 | 18 | 18 | 27 | 0 | 36 | 9 |
|  | Draft | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Outdated | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

### 3.3 Summary

The findings in this chapter demonstrate that governance in university institutions was adequate in a number of aspects. In terms of adequacy of top management (in the context defined in this book), at the time of implementation of the audit mission, some institutions had at least one top management staff who lacked the requisite qualifications (in line with established standards) for the post. Moreover, a number of governance tools were observed in several university institutions, though at varying rates between and within public and private institutions, with the later institutions exhibiting more variability between and within institutions and had fewer governance tools.

## CHAPTER 4

## Academic Staff Disposition in University Institutions

### 4.1 Introduction

In Chapter Three, the focus was on governance and management issues in university institutions. In this chapter, the focus is on the number and qualifications (or highest level of education attained) of academic staff in the reported institutions. Analyses in this chapter used data that were collected from 53 institutions.

As per the Second Edition of Quality Assurance General Guidelines and Minimum Standards for Provision of University Education in Tanzania, 2014, academic members of staff have qualifications ranging from PhD to Bachelor degrees. Their designations range from full Professors/ Library Professors/Research Professors, Associate Professors/ Associate Library Professors/Associate Research Professors, Senior Lecturers/ Senior Librarians/Senior Research Fellows, Lecturers/ Librarians/Research Fellows, Assistant Lecturers/ Assistant Librarians/Assistant Research Fellows to Tutorial Assistants/Assistant Library Trainees.

As per the referred Standards and Guidelines, the lowest employment entry point for teaching staff in universities is Tutorial Assistant/Assistant Library Trainee while for the research fellow cadre; the lowest entry point is Assistant Research Fellow. Moreover, the main duties of Tutorial Assistants/Assistant Library Trainees are to assist lecturers in their routine teaching activities especially overseeing tutorials, seminars, practicals and in marking scripts under the guidance of appointed mentors. Meanwhile, as per the Quality Assurance Guidelines and Standards, it is a requirement that all members of academic staff attain the highest qualification ( PhD ) in their profession except for medicine where an MMed or equivalent is acceptable. However, based on the job descriptions of technical staff in university institutions, it is not binding for them to have a PhD as long as one has the minimum qualifications required to effectively and efficiently perform his/her duties.

However, it is worthwhile mentioning here that while there are harmonized recruitment and promotion criteria for members of academic staff in public university institutions, the same are missing in private university institutions. The absence of harmonised criteria for recruitment and promotion of academic staff across universities has led to confusion and inconstancies in the employment and ranking of academic staff. This matter has for sometime been a major concern that needs to be addressed through development of guidelines to cover different aspects of human resources management practices in university institutions in order to overcome the existing discrepancies and misunderstanding. It is in this regard, that TCU through support from the World Bank under the Education and Skills for Productive Jobs Programme for Results (ESPJ-PforR) hosted by the

Ministry of Education, Sciences and Technology has embarked on the establishment of relevant guidelines and standards.

The analysis in this chapter used data collected from 53 university institutions ( $\mathrm{n}=15$ public university and $\mathrm{n}=38$ private university) of which 31 were FullFledged Universities, 12 were University Colleges and 10 were University Campuses, Centres and Institutes.

### 4.2 Number of Academic Staff

A total of 8,307 members of academic staff including 660 (7.9\%) technical staff were present in the various public and private university institutions as at $2^{\text {nd }}$ June 2018. This means that of the total 8,307 academic staff, 7,647 (92.1\%) were teaching staff. Technical staff included Laboratory Technicians, Workshop Instructors, Forest and Field Attendants and Laboratory Engineers, among others.

Table 11 presents some descriptive statistics of numbers of academic staff (teaching and technical staff) in university institutions. The mean (standard deviation or SD) number of total academic staff (combined for teaching and technical) per institution was 157 (243) with a range of 1,428 (minimum 21 and maximum 1,449 ) staff. The median number of academic staff was 76 , implying that $50 \%$ of the institutions had members of academic staff below 76 while the remaining $50 \%$ of the institutions had members of academic staff above the median value of 76 staff, that is, they had more than 76 academic staff. However, when teaching staff were considered separately, the mean (SD) number of teaching staff per institution was 144 (217) and ranged from a minimum of 21 to a maximum of 1,327 staff, and the median value was 72 staff.

On the other hand, the mean (SD) number of technical staff per institutions was 12 (34) and ranged from a minimum of 0 to a maximum of 214 staff and the median value was 2 staff. Overall, the distribution of academic members of staff (teaching and technical combined) in university institutions was found to be nonnormally distributed (Shapiro-Wilk test of normally, $\mathrm{p}<0.001$ ).

When considered separately, the distributions of teaching and technical staff were also individually found to be non-normally distributed, implying that university institutions had different number of teaching and technical staff. This is not unexpected in university institutions since one of the key determining factors of staff population in university institutions is size of the institution, which is determined largely by number of students, which in turn is determined by the number and nature of programmes that the institution runs. Some programmes require technical staff while others do not.

Table 11: Descriptive statistics of number of academic staff (teaching and technical)

|  | Estimated value |  |  |
| :--- | :---: | :---: | :---: |
| Summary statistic | Teaching staff | Technical staff | Overall |
| Mean | 144 | 12 | 157 |
| Standard Deviation | 217 | 34 | 243 |
| Range | 1,306 | 214 | 1,428 |
| Minimum | 21 | 0 | 21 |
| Maximum | 1,327 | 214 | 1,449 |
| Sum | 7,647 | 660 | 8,307 |
| Percentile |  |  |  |
|  |  | 43 | 0 |
|  |  |  |  |
|  | 50 | 72 | 2 |
|  |  |  |  |
| Skewness |  | 75 | 163 |

### 4.3 Academic Staff by Type of Institution and Sex

More than three-quarters ( $\mathrm{n}=6,309 ; 82.5 \%$ ) of the total 7,647 teaching staff (excluding technical staff) in university institutions were from Full-Fledged Universities. University Colleges, and University Campuses, Centres and Institutes accounted for $13.3 \%(n=1,015)$ and $4.2 \%(n=323)$, respectively of the total teaching staff in the institutions (Figure 3). A similar pattern was also observed for technical staff whereby 574 ( $87.0 \%$ ) of the staff were from Full-Fledged Universities. University Colleges, and University Campuses, Centres and Institutes accounted for $12.3 \%(\mathrm{n}=81)$ and $0.8 \%(\mathrm{n}=5)$, respectively of the total technical staff in the institutions.

In terms of sex, the analysis revealed that university institutions in the country are largely dominated by male teaching staff. Of the total 7,647 teaching staff in university institutions, about three-quarters ( $\mathrm{n}=5,766$; $75.4 \%$ ) were males and the remaining 1,881 ( $24.6 \%$ ) were females. Likewise, a significant proportion of the total technical staff ( $\mathrm{n}=526 ; 79.7 \%$ ) were males and the remaining 134 (20.3\%) were females. Overall, male academic staff (both teaching and technical) accounted for about three-quarters ( $\mathrm{n}=6,292$; 75.7\%) of the total academic staff while females accounted for the remaining proportion (i.e., $n=2,015 ; 24.3 \%$ ).


Figure 3: Academic staff by institution type and sex

### 4.4 Academic Staff by Cluster and Ownership of Institution

On award clusters or fields of specialization of academic members of staff (teaching and technical) in university institutions, the results revealed that a significant proportion of them were concentrated in seven (7) out of the total 18 fields of specialization or clusters. The said leading clusters (n; \%) are, namely Medicine, Veterinary and Health Sciences ( $\mathrm{n}=1,287$; 15.5\%), Social Sciences ( $\mathrm{n}=1,200$; 14.4\%), Education ( $\mathrm{n}=941$; 11.3\%), General ( $\mathrm{n}=775$; 9.3\%), Business ( $\mathrm{n}=708$; 8.5\%), Humanities and Arts ( $\mathrm{n}=611 ; 7.4 \%$ ), and Engineering ( $\mathrm{n}=605$; $7.3 \%)$. Altogether, these seven (7) clusters accounted for $73.8 \%(n=6,127)$ of the total staff population in the university institutions (Table 12). The last seven (7) clusters in terms of low number of staff (in decreasing order of magnitude of number of staff) were Agriculture ( $\mathrm{n}=248$; 3.0\%), Life Sciences ( $\mathrm{n}=206 ; 2.5 \%$ ), Architecture and Planning ( $\mathrm{n}=123$; 1.5\%), Mining and Earth Sciences ( $\mathrm{n}=102$; 1.2\%), Library, Archive and Museum Studies (n=92; 1.1\%), Journalism Media Studies and Communication ( $\mathrm{n}=66$; $0.8 \%$ ), and Tourism and Hospitality Studies ( $\mathrm{n}=47$; 0.5\%) (Table 12).

Table 12: Academic staff by award cluster and ownership of institution

| SN | Award cluster | Public University Institutions |  |  |  | Private University Institutions |  |  |  | Grand total | Percentage of the total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Female | Male | Total | Percent | Female | Male | Total | Percent |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | Medicine, Veterinary and Health Sciences | 125 | 575 | 700 | 54.4 | 122 | 465 | 587 | 45.6 | 1,287 | 15.5 |
| 2 | Social Sciences | 203 | 505 | 708 | 59.0 | 110 | 382 | 492 | 41.0 | 1,200 | 14.4 |
| 3 | Education | 180 | 377 | 557 | 59.2 | 107 | 277 | 384 | 40.8 | 941 | 11.3 |
| 4 | General | 135 | 398 | 533 | 68.8 | 44 | 198 | 242 | 31.2 | 775 | 9.3 |
| 5 | Business | 84 | 278 | 362 | 51.1 | 81 | 265 | 346 | 48.9 | 708 | 8.5 |
| 6 | Humanities and Arts | 97 | 228 | 325 | 53.2 | 68 | 218 | 286 | 46.8 | 611 | 7.4 |
| 7 | Engineering | 90 | 415 | 505 | 83.5 | 12 | 88 | 100 | 16.5 | 605 | 7.3 |
| 8 | Information and Communication Technology | 60 | 184 | 244 | 65.2 | 27 | 103 | 130 | 34.8 | 374 | 4.5 |
| 9 | Physical Sciences and Mathematics | 39 | 203 | 242 | 74.5 | 17 | 66 | 83 | 25.5 | 325 | 3.9 |
|  | Environmental Science or Studies and |  |  |  |  |  |  |  |  |  |  |
| 10 | Forestry | 69 | 175 | 244 | 78.7 | 17 | 49 | 66 | 21.3 | 310 | 3.7 |
| 11 | Law | 25 | 96 | 121 | 42.2 | 58 | 108 | 166 | 57.8 | 287 | 3.5 |
| 12 | Agriculture | 69 | 157 | 226 | 91.1 | 9 | 13 | 22 | 8.9 | 248 | 3.0 |
| 13 | Life Sciences | 41 | 108 | 149 | 72.3 | 19 | 38 | 57 | 27.7 | 206 | 2.5 |
| 14 | Architecture and Planning | 22 | 81 | 103 | 83.7 |  | 20 | 20 | 16.3 | 123 | 1.5 |
| 15 | Mining and Earth Sciences | 19 | 75 | 94 | 92.2 | 3 | 5 | 8 | 7.8 | 102 | 1.2 |
| 16 | Library, Archive and Museum Studies | 21 | 44 | 65 | 70.7 | 9 | 18 | 27 | 29.3 | 92 | 1.1 |
|  | Journalism Media Studies and |  |  |  |  |  |  |  |  |  |  |
| 17 | Communication | 9 | 24 | 33 | 50.0 | 7 | 26 | 33 | 50.0 | 66 | 0.8 |
| 18 | Tourism and Hospitality studies | 12 | 22 | 34 | 72.3 | 5 | 8 | 13 | 27.7 | 47 | 0.6 |
|  | Grand total | 1,300 | 3,945 | 5,245 | 63.1 | 715 | 2,347 | 3,062 | 36.9 | 8,307 | 100.0 |

When the data were disaggregated by university ownership (public against private) of the institution, variations were observed between the two category of institutions. The results revealed that more than half ( $n=5,245 ; 63.1 \%$ ) of the total academic staff were from public university institutions while the remaining 3,062 (36.9\%) were from private institutions (Table 12).

Private university institutions had more staff in only one (1) of the total 18 clusters. That is, there were more academic staff in the Law cluster (57.8\% private versus $42.2 \%$ public). With the exception of Journalism Media Studies and Communication cluster in which private and public institutions had equal proportions of staff, in all the remaining clusters, public university institutions had the highest proportions of staff. The proportions of staff in public university institutions was far much higher than that in private university institutions especially in the Mining and Earth Sciences (92.2\%\% public versus 7.8\% private), Agriculture ( $91.1 \%$ public versus $8.9 \%$ private), Architecture and Planning ( $83.7 \%$ public versus $16.3 \%$ private), Engineering ( $83.5 \%$ public versus $16.5 \%$ private), Environmental Science or Studies and Forestry (78.7\% public versus $21.3 \%$ private), Physical Sciences and Mathematics (74.5\% public versus 25.5\% private), Life Sciences ( $72.3 \%$ public versus $27.7 \%$ private), and Tourism and Hospitality Studies ( $72.3 \%$ public versus $27.7 \%$ private) and as revealed in Figure 4.


Figure 4: Academic staff in public and private university institutions

### 4.5 Academic Staff by Level of Education

Of the total 7,647 teaching staff (i.e., excluding technical staff) in university institutions, PhD holders accounted for $28.6 \%(\mathrm{n}=2,185)$ while Master and Bachelor degree holders accounted for $50.7 \%(n=3,875)$ and 20.8\% ( $n=1,587$ ), respectively. Cumulatively, PhD and Master degree holders accounted for more
than three-quarters ( $n=6,060 ; 79.2 \%$ ) of the total population of teaching staff in university institutions (Figure 5). On the other hand, of the total 660 technical staff in university institutions, PhD holders accounted for $1.8 \%$ ( $\mathrm{n}=12$ ) while Master and Bachelor degree holders accounted for $13.2 \%$ ( $\mathrm{n}=87$ ) and $25.3 \%$ ( $\mathrm{n}=167$ ), respectively of the total technical staff in university institutions. Other qualifications of technical staff are as shown in Figure 6.

Of the total PhD holders, Full-Fledged Universities accounted for 87.4\% ( $\mathrm{n}=1,908$ ) while University Colleges, and University Campuses, Centres and Institutes accounted for 9.9\% ( $\mathrm{n}=215$ ) and $2.7 \% ~(\mathrm{n}=59)$, respectively. Table 13 provides the number of academic staff by qualifications or level of education and type of institution disaggregated by sex.

Table 14 gives the number of academic staff by level of education and ownership of institution (public against private). From the table, it is clear that public university institutions were more likely to have PhD holders than private university institutions. Of the total PhD holders (i.e., 2,197), more than two-thirds ( $\mathrm{n}=1,499$; 68.2\%) were from public institutions while the corresponding proportion in private university institutions was $31.8 \%$ ( $n=698$ ).

On average, there were 100 staff with Doctoral degrees in each of the 15 public university institutions compared to 18 PhD holders in each of the 38 private university institutions considered for analysis in this chapter. Likewise, on the average, there were 156 and 74 academic members of staff with Master and Bachelor degrees, respectively in each of the 15 public university institutions compared to 43 and 17 staff with equivalent qualifications (Master and Bachelor's degrees, respectively) in each of the 38 private university institutions. However, given the fact that the distribution of staff was non-normally distributed (with extreme values), the information on average number of staff as described here should be interpreted with caution since simple average is affected by extreme values and hence, is not a good measure of central tendency or average in case there are extreme values in the dataset as it is in the present case.


Figure 5: Teaching staff by level of education


Figure 6: Technical staff by level of education
Table 13: Academic staff (teaching and technical) by level of education and type of institution

| Level of Education ${ }^{8}$ | Sex | Type of institution |  |  | Grand Total | \% qualification <br> (Teaching and Technical) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Full-Fledged Universities | University Colleges | University Campuses, Centres and Institutes |  |  |
| Doctorate <br> Degree | Female | 426 | 40 | 16 | 482 |  |
|  | Male | 1,501 | 168 | 46 | 1,715 |  |
|  | Total | 1,927 | 208 | 62 | 2,197 | 26.4 |
| Master Degree | Female | 784 | 137 | 53 | 974 |  |
|  | Male | 2,447 | 405 | 136 | 2,988 |  |
|  | Total | 3,231 | 542 | 189 | 3,962 | 47.7 |
| Bachelor <br> Degree | Female | 371 | 83 | 21 | 475 |  |
|  | Male | 1,018 | 210 | 51 | 1,279 |  |
|  | Total | 1,389 | 293 | 72 | 1,754 | 21.1 |
| Advanced Diploma | Female | 4 |  |  | 4 |  |
|  | Male | 10 | 4 |  | 14 |  |
|  | Total | 14 | 4 |  | 18 | 0.2 |
| Ordinary <br> Diploma | Female | 32 | 2 |  | 34 |  |
|  | Male | 108 | 29 |  | 137 |  |
|  | Total | 140 | 31 |  | 171 | 2.1 |
| Certificate | Female | 17 | 2 |  | 19 |  |
|  | Male | 71 | 16 | 5 | 92 |  |
|  | Total | 88 | 18 | 5 | 111 | 1.3 |
| Secondary <br> Education | Female | 16 |  |  | 16 |  |
|  | Male | 38 |  |  | 38 |  |
|  | Total | 54 |  |  | 54 | 0.7 |
| Primary Education | Female | 11 |  |  | 11 |  |
|  | Male | 29 |  |  | 29 |  |
|  | Total | 40 |  |  | 40 | 0.5 |
| Grand Total |  | 6,883 | 1,096 | 328 | 8,307 | 100 |

[^7]Table 14: Academic staff (teaching and technical) by level of education and ownership

|  | Ownership of institution |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage <br> Education level |  |  |  | Public |  |  |  |  | Percentage |  |
| Doctorate Degree | 1,499 | 68.2 | 698 | 31.8 | 2197 |  |  |  |  |  |  |
| Master Degree | 2,335 | 58.9 | 1,627 | 41.1 | 3962 |  |  |  |  |  |  |
| Bachelor Degree | 1,109 | 63.2 | 645 | 36.8 | 1754 |  |  |  |  |  |  |
| Advanced Diploma | 12 | 66.7 | 6 | 33.3 | 18 |  |  |  |  |  |  |
| Ordinary Diploma | 122 | 71.3 | 49 | 28.7 | 171 |  |  |  |  |  |  |
| Certificate | 80 | 72.1 | 31 | 27.9 | 111 |  |  |  |  |  |  |
| Secondary Education | 52 | 96.3 | 2 | 3.7 | 54 |  |  |  |  |  |  |
| Primary Education | 36 | 90.0 | 4 | 10.0 | 40 |  |  |  |  |  |  |
| Grand Total | 5,245 | 63.1 | 3,062 | 36.9 | 8,307 |  |  |  |  |  |  |

### 4.6 Academic Staff by Nationality

According to the data, most of the academic staff ( $\mathrm{n}=7,975$; 96.0\%) in university institutions in the country were Tanzanians. Indians and Kenyans each accounted for $0.9 \%(\mathrm{n}=80)$ and ( $\mathrm{n}=76$ ), respectively while Ugandans and Nigerians accounted for $0.4 \%(n=38)$ and $0.2 \%(n=21)$, respectively of the total population of academic staff in university institutions in the country. Others were from more than 20 countries and in sum accounted for about $1.4 \%$ of the total population of academic staff in the country (Figure 7).


Figure 7: Academic (teaching and technical) staff by nationality

### 4.7 Academic Staff by Employment Status

Employment status in university institutions can be on permanent, part-time or contract basis. The results revealed that $7,701(92.7 \%)$ of the total population of academic staff in university institutions were working on full-time basis. Staff who were working on part-time basis accounted for $4.9 \%(n=403)$ while $188(2.3 \%)$ were working on contractual basis.

A comparison between the different types of institutions was made and the results revealed that Full-Fledged Universities were more likely to have full-time staff (93.9\%) compared to University Colleges (89.8\%) or University Campuses, Centres and Institutes (78.4\%). In other words, University Campuses, Centres and Institutes
were more likely to have part-time lecturers (21.6\%) as opposed to Full-Fledged Universities (6.1\%) or University Colleges (10.2\%) as Table 15 shows.

Table 15: Academic staff by employment status and type of institution

|  | Employment status | Full-Fledged Universities |  |  | University Colleges |  |  | University Campuses, Centres and Institutes |  |  | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Female | Male | Total | Female | Male | Total | Female | Male | Total |  |
| 1 | Full-Time | 1,609 | 4,851 | 6,460 | 239 | 745 | 984 | 71 | 186 | 257 | 7,701 |
| 2 | Part-Time | 29 | 203 | 232 | 24 | 80 | 104 | 9 | 58 | 67 | 403 |
| 3 | Contract | 26 | 150 | 176 |  | 8 | 8 | 3 | 1 | 4 | 188 |
| 4 | Volunteer | 3 | 7 | 10 |  |  |  |  |  |  | 10 |
| 5 | Visiting Lecturer | 2 | 3 | 5 |  |  |  |  |  |  | 5 |
|  |  | 1,669 | 5,214 | 6,883 | 263 | 833 | 1,096 | 83 | 245 | 328 | 8,307 |

When the data on employment status were disaggregated by institution ownership (public against private), some notable differences were observed. In particular, 5,152 ( $98.2 \%$ ) of the total staff in public university institutions were working on full-time basis while the corresponding number in private university institutions was 2,549 (83.3\%). Furthermore, private university institutions were about 31 times more likely to have part-time staff than their counterpart public university institutions. The corresponding figures were $12.5 \%$ for private against $0.4 \%$ for public university institutions (Table 16).

Table 16: Academic staff by employment status and ownership of institution

| SN | Employment Status | Ownership of institution |  |  |  |  |  | Grand total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Public |  |  | Private |  |  |  |
|  |  | Female | Male | Total | Female | Male | Total |  |
| 1 | Full-Time | 1,364 | 3,788 | 5,152 | 538 | 2,011 | 2,549 | 7,701 |
| 2 | Part-Time | 6 | 15 | 21 | 76 | 306 | 382 | 403 |
| 3 | Contract | 34 | 38 | 72 | 25 | 91 | 116 | 188 |
| 4 | Volunteer | 0 | 0 | 0 | 3 | 7 | 10 | 10 |
| 5 | Visiting Lecturer | 0 | 0 | 0 | 2 | 3 | 5 | 5 |
|  | Grand total | 1,404 | 3,841 | 5,245 | 644 | 2,418 | 3,062 | 8,307 |

### 4.8 Summary

The analysis in this chapter revealed that 8,307 members of academic staff including 660 ( $7.9 \%$ ) technical staff were present in 53 university institutions in the country as at $2^{\text {nd }}$ June 2018. Alternatively speaking, of the total 8,307 members of academic staff, 7,647 (92.1\%) were teaching staff. Technical staff included Laboratory Technicians, Workshop Instructors, Forest and Field Attendants and Laboratory Engineers, among others. There were notable variations between institutions in terms of population of academic staff. The mean (SD) number of total academic staff was 157 (243) with a range of 1,428 (minimum 21 and maximum 1,449) staff. The median number of teaching staff was 76 , indicating that $50 \%$ of the institutions had members of academic staff below 76 while the remaining $50 \%$ of the institutions had members of academic staff above the median value of 76 staff. However, when teaching staff were considered separately, the mean (SD) number of teaching staff was 144 (217) and ranged from a minimum of 21 to a maximum of 1,327 staff, and the median value was 72 staff. On the other hand, the mean (SD) number of technical staff in university institutions was 12 (34) and ranged from a minimum of 0 to a maximum of 214 staff and the median value was 2 staff.

The results revealed further that more than three-quarters ( $n=6,309 ; 82.5 \%$ ) of the 7,647 teaching staff (excluding technical staff) in university institutions were from Full-Fledged Universities. University Colleges, and University Campuses, Centres and Institutes represented $13.3 \%$ and $4.2 \%$, respectively of the total teaching staff in the institutions. A similar pattern was also observed for technical staff whereby 574 ( $87.0 \%$ ) were from Full-Fledged Universities. University Colleges, and University Campuses, Centres and Institutes accounted for $12.3 \%$ and $0.8 \%$, respectively of the total technical staff in the institutions.

In terms of sex, the analysis revealed that of the total 7,647 teaching staff in university institutions, about three-quarters ( $\mathrm{n}=5,766$; 75.4\%) were males and 1,881 (24.6\%) were females. Likewise, a significant proportion of the total technical staff ( $\mathrm{n}=526 ; 79.7 \%$ ) were males and 134 (20.3\%) were females. Overall, male academic staff (both teaching and technical) accounted for about threequarters ( $n=6,292 ; 75.7 \%$ ) of the total academic staff while females accounted for the remaining proportion (i.e., $\mathrm{n}=2,015 ; 24.3 \%$ ).

On areas of specialization or clusters, members of academic staff in university institutions were distributed across 18 different clusters. However, the predominant clusters (by number of staff) were seven (7), which are Medicine, Veterinary and Health Sciences ( $\mathrm{n}=1,287$; 15.5\%), Social Sciences ( $\mathrm{n}=1,200$; $14.4 \%$ ), Education ( $\mathrm{n}=941$; 11.3\%), General ( $\mathrm{n}=775$; 9.3\%), Business ( $\mathrm{n}=708$; 8.5\%), Humanities and Arts ( $\mathrm{n}=611$; 7.4\%), and Engineering ( $\mathrm{n}=605$; 7.3\%). Altogether, these seven (7) clusters accounted for $73.8 \%$ ( $n=6,127$ ) of the total staff population in the university institutions. The last seven (7) clusters in terms of low number of staff (in decreasing order of magnitude of number of staff) were Agriculture ( $\mathrm{n}=248$; 3.0\%), Life Sciences ( $\mathrm{n}=206 ; 2.5 \%$ ), Architecture and Planning ( $\mathrm{n}=123$; 1.5\%), Mining and Earth Sciences ( $\mathrm{n}=102$; 1.2\%), Library, Archive and Museum Studies ( $\mathrm{n}=92$; 1.1\%), Journalism Media Studies and Communication ( $\mathrm{n}=66 ; 0.8 \%$ ), and Tourism and Hospitality Studies ( $\mathrm{n}=47 ; 0.5 \%$ ).

When the data were disaggregated by university ownership (public against private), the results revealed that more than half ( $n=5,245 ; 63.1 \%$ ) of the academic staff were from public university institutions while the remaining 3,062 (36.9\%) were from private institutions. Further analysis revealed that private university institutions had more staff in the Law cluster (57.8\% private versus $42.2 \%$ public) while with the exception of Journalism Media Studies and Communication cluster in which private and public institutions had equal proportions of staff, in all the remaining clusters, public university institutions had the highest proportions of staff. The proportions of staff in public university institutions was far much higher than that in private university institutions particularly in the Mining and Earth Sciences (92.2\%\% public versus 7.8\% private), Agriculture ( $91.1 \%$ public vs. $8.9 \%$ private), Architecture and Planning ( $83.7 \%$ public versus $16.3 \%$ private), Engineering ( $83.5 \%$ public versus $16.5 \%$ private), Environmental Science or Studies and Forestry ( $78.7 \%$ public versus $21.3 \%$ private), Physical Sciences and Mathematics (74.5\% public versus $25.5 \%$ private), Life Sciences ( $72.3 \%$ public versus $27.7 \%$ private), and Tourism and Hospitality Studies (72.3\% public versus 27.7\% private).

Of the total 7,647 teaching staff (i.e., excluding technical staff) in university institutions, PhD holders accounted for $28.6 \%(n=2,185)$ while Master and Bachelor degree holders accounted for $50.7 \%(n=3,875)$ and 20.8\% ( $n=1,587$ ), respectively. Cumulatively, PhD and Master degree holders accounted for more than three-quarters ( $n=6,060 ; 79.2 \%$ ) of the total population of teaching staff in university institutions. Further, of the total 660 technical staff in university institutions, PhD holders accounted for $1.8 \%$ ( $\mathrm{n}=12$ ) while Master and Bachelor degree holders accounted for $13.2 \%(n=87)$ and $25.3 \%(n=167)$, respectively of the total technical staff in university institutions.

Of the total PhD holders, Full-Fledged Universities accounted for 87.4\% ( $\mathrm{n}=1,908$ ) while University Colleges, and University Campuses, Centres and

Institutes accounted for 9.9\% ( $\mathrm{n}=215$ ) and $2.7 \%(\mathrm{n}=59)$, respectively. Further, public university institutions were more likely to have PhD holders than private university institutions. Of the total PhD holders (i.e., 2,197), more than two-thirds ( $\mathrm{n}=1,499$; 68.2\%) were from public institutions while the corresponding proportion in private university institutions was $31.8 \%$ ( $\mathrm{n}=698$ ).

Most of the academic staff ( $\mathrm{n}=7,975$; 96.0\%) in university institutions in the country were Tanzanians. Indians and Kenyans each accounted for $0.9 \%$ ( $\mathrm{n}=80$ ) and ( $\mathrm{n}=76$ ), respectively while Ugandans and Nigerians accounted for $0.4 \%$ ( $n=38$ ) and $0.2 \%(n=21)$, respectively of the total population of academic staff in university institutions in the country.

Regarding employment status, the results revealed that 7,701 (92.7\%) of the total population of academic staff in university institutions were working on fulltime basis. Staff who were working on part-time basis accounted for $4.9 \%$ ( $\mathrm{n}=403$ ) while 188 ( $2.3 \%$ ) were working on contractual basis.

When the data were disaggregated by type of institution (Full-Fledged Universities, University Colleges, and University Campuses, Centres, and Institutes), the results revealed that Full-Fledged Universities were more likely to have full-time staff (93.9\%) compared to University Colleges (89.8\%) or University Campuses, Centres and Institutes (78.4\%). In other words, University Campuses, Centres and Institutes were more likely to have Part-time Lecturers (21.6\%) as opposed to Full-Fledged Universities (6.1\%) or University Colleges (10.2\%).

On employment status by ownership of institution (public against private), the results revealed that 5,152 ( $98.2 \%$ ) of the total staff in public university institutions were working on full-time basis while the corresponding number in private university institutions was 2,549 ( $83.3 \%$ ). Furthermore, private university institutions were 31 times more likely to have part-time staff than their counterpart public university institutions. The corresponding figures were 12.5\% for private against $0.4 \%$ for public university institutions.

The findings in this chapter suggest that efforts to raise the population of academic members of staff in university institutions should go hand-in-hand with establishment of effective and sustainable staff development strategies that aim at training academic staff at PhD levels.

## CHAPTER 5

# Administrative Staff Disposition in University Institutions 

### 5.1 Introduction

In Chapter Four, the focus was on the numbers and qualifications of academic staff only (including technicians) in university institutions although staff in university institutions include administrative staff. For that reason, this chapter provides statistics on numbers and qualifications (also measured by highest level of education attained) of administrative staff disaggregated by different variables including sex and type of institution.

Administrative staff in university institutions in Tanzania include but not limited to Human Resources Officers (HROs), Accountants, Planning Officers, Estates Managers, Librarians, Personal Secretaries (PS), Drivers, Cleaners, Security Officers, Messengers etc. The number and highest education level of administrative staff varies depending on the institutional requirements. However, for Government or public university institutions, the development of the administrative staff cadre is guided by existing government policies and standardized procedures that govern their recruitment, promotion and retention. On the other hand, the number and highest level of education of administrative staff cadre in private university institutions depend largely on an individual institution's set policies and procedures. Similarly, the analysis on the number and level of education of administrative staff was based on data from 53 university institutions (30 Full-Fledged Universities, 12 University Colleges and 11 University Campuses, Centres and Institutes).

### 5.2 Number of Administrative Staff

A total of 5,799 members of administrative staff were available in the 53 university institutions as at $2^{\text {nd }}$ June 2018. The mean (SD) number of administrative staff was 109 (177) staff per institution with a range of 890 (minimum 2 and maximum 892) staff. The median number of administrative staff was 40 , indicating that $50 \%$ of the institutions had administrative staff below 40 while the remaining $50 \%$ of the institutions had administrative staff above the median value of 40 staff (Table 17). As was the case for academic staff, the distribution of administrative staff in university institutions was also found to be non-normally distributed (Shapiro-Wilk test of normally, $\mathrm{p}<0.001$ ).

Table 17: Descriptive statistics of number of administrative staff

| Summary statistic | Estimated value |
| :--- | :---: |
| Mean | 109 |
| Standard deviation | 177 |
| Range | 890 |
| Minimum | 2 |
| Maximum | 892 |
| Sum | 5,799 |
| Percentile |  |
| 5 |  |
|  | 20 |
| 70 | 40 |
| Skewness | 110 |

On the gender dimension, as it was for academic members of staff, male administrative staff were the majority in most university institutions. Overall, males accounted for $53.2 \%(\mathrm{n}=3,088)$ while females accounted for the remaining proportion ( $n=2,711 ; 46.8 \%$ ) of the total population of administrative staff in the institutions.

### 5.3 Administrative Staff by Type of Institution

The analysis revealed that Full-Fledged Universities had the highest proportion of administrative staff than the other types of institutions. In particular, Full-Fledged Universities accounted for about $84.6 \%(n=4,906)$ of all administrative staff in the university institutions. University Colleges, and University Campuses, Centres and Institutes accounted for $11.6 \%(\mathrm{n}=671)$ and $3.8 \%(\mathrm{n}=222)$, respectively (Figure 8).


Figure 8: Administrative staff by type of institution and sex

The analysis on the composition of administrative staff between public and private university institutions revealed that public institutions represented about $76.0 \%(n=4,406)$ while private university institutions accounted for only $24.0 \%$ ( $\mathrm{n}=1,393$ ) of the population of administrative staff in university institutions in the country. Whereas private Full-Fledged Universities had 19.4\% ( $\mathrm{n}=952$ ) of the total administrative staff in all Full-Fledged Universities, public Full-Fledged Universities had $80.6 \%(\mathrm{n}=3,954)$ as Table 18 shows. On average (number of staff/number of institutions), public Full-Fledged Universities, University Colleges and Campuses had 360, 191 and 35 staff, respectively. The equivalent average numbers of staff in private university institutions were 50, 29 and 17, respectively.

Table 18: Administrative staff by type and ownership of institution

| SN | Type of institution | Number of institutions | Ownership of institution |  |  |  |  |  | Grand total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Public |  |  | Private |  |  |  |
|  |  |  | Number of staff | Number of institutions | Percent (Public) | Number of staff | Number of institutions | Percent (Private) |  |
| 1 | Full-Fledged Universities | 30 | 3,954 | 11 | 80.6 | 952 | 19 | 19.4 | 4,906 |
| 2 | University Colleges | 12 | 382 | 2 | 56.9 | 289 | 10 | 43.1 | 671 |
| 3 | University Campuses, Centres and Institutes | 11 | 70 | 2 | 31.5 | 152 | 9 | 68.5 | 222 |
|  | Grand total | 53 | 4,406 | 15 | 76.0 | 1,393 | 38 | 24.0 | 5,799 |

### 5.4 Administrative Staff by Cadre and Type of Institution

A significant part of the administrative staff in university institutions were Attendants, Accountants, Librarians, and Personal Secretaries. These cadres accounted for $10.5 \%(n=655), 9.0 \%(n=520), 8.9 \%(n=475)$ and $8.3 \%(n=441)$, respectively of the total population of administrative staff in university institutions. Other cadres and their respective number of staff are as shown in Table 19.

Table 19: Administrative staff by institution type and cadre

| SN | Name of the cadre | Institution type |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Full-Fledged Universities | University Colleges | University Campuses, Centres and Institutes |  |
| 1 | Attendant | 611 | 36 | 8 | 655 |
| 2 | Librarian | 404 | 78 | 38 | 520 |
| 3 | Accountant | 388 | 60 | 27 | 475 |
| 4 | Personal Secretary | 395 | 36 | 10 | 441 |
| 5 | Security Officer | 270 | 16 | 4 | 290 |
| 6 | Driver | 241 | 26 | 15 | 282 |
| 7 | Office Assistant | 234 | 8 | 15 | 257 |
| 8 | Artisan | 223 | 21 | 7 | 251 |
| 9 | Administrative Officer | 203 | 36 | 4 | 243 |
| 10 | Nurse | 189 | 34 | 1 | 224 |
| 11 | ICT | 187 | 28 | 6 | 221 |
| 12 | Human Resources Officer | 159 | 9 | 6 | 174 |
| 13 | Procurement Officer | 133 | 18 | 6 | 157 |
| 14 | Medical Officer | 106 | 23 | 2 | 131 |
|  | Records Management |  |  |  |  |
| 15 | Officer | 104 | 5 | 2 | 111 |
| 16 | Warden | 84 | 12 | 1 | 97 |
| 17 | Janitor | 84 | 2 | 1 | 87 |
| 18 | Dean of Students | 58 | 13 | 4 | 75 |
| 19 | Admissions Officer | 47 | 12 | 8 | 67 |
| 20 | Internal Auditor | 58 | 4 | 0 | 62 |
| 21 | Cleaner | 38 | 12 | 11 | 61 |
| 22 | Planning Officer | 53 | 7 | 1 | 61 |
| 23 | Not Disclosed | 56 | 0 | 4 | 60 |
| 24 | Education Officer | 0 | 58 | 0 | 58 |
| 25 | Teacher | 37 | 19 | 0 | 56 |
| 26 | Estates Officer | 40 | 13 | 2 | 55 |
| 27 | Examination Officer | 27 | 5 | 5 | 37 |
| 28 | Legal Officer | 24 | 9 | 0 | 33 |
| 29 | Public Relations Officer | 29 | 1 | 3 | 33 |
| 30 | Receptionist | 30 | 1 | 1 | 32 |
| 31 | Marketing Officer | 20 | 0 | 1 | 21 |
| 32 | Pharmacist | 16 | 3 | 0 | 19 |
| 33 | Health Officer | 16 | 2 | 0 | 18 |
| 34 | Cook | 7 | 5 | 0 | 12 |
| 35 | Academic Officer | 11 | 0 | 0 | 11 |
| 36 | Engineering | 11 | 0 | 0 | 11 |
| 37 | Transport Officer | 7 | 1 | 0 | 8 |
| 38 | Others | 306 | 58 | 29 | 393 |
|  | Total | 4,906 | 671 | 222 | 5,799 |

### 5.5 Qualification of Administrative Staff

s Figure 9 shows, 1,529 (12.37\%) of the total population of administrative staff were holders of certificates. About $8.3 \%(n=1,113)$ and $6.0 \% ~(n=765)$ were holders of Bachelor and Master's degrees, respectively while about $12.0 \%$ ( $\mathrm{n}=1051$ ) were holders of Ordinary Diploma. Secondary and primary education represented $4.5 \%(n=563)$ and $2.2 \%(n=391)$, respectively of the total population of administrative staff in university institutions. Only sixty-six ( $0.2 \%$ ) of the total administrative staff were PhD holders and varied between males and females (Figure 9).


Figure 9: Administrative staff by education level and sex

### 5.6 Summary

A total of 5,799 members of administrative staff were employed in 53 university institutions. The mean (SD) number of administrative staff was about 109 (177) and ranged from a minimum 2 and maximum of 892 staff.

On the gender dimension, male staff accounted for $53.2 \%$ while females accounted for the remaining proportion (46.8\%) of the total population of administrative staff in university institutions. Further analysis showed that FullFledged Universities had the highest proportion of administrative staff than the other types of institutions. In particular, Full-Fledged Universities accounted for about $84.6 \%$ of all administrative staff in the university institutions. University Colleges, and University Campuses, Centres and Institutes accounted for $11.6 \%$ and $3.8 \%$, respectively of the total number of administrative staff in the institutions.

Public institutions represented $76.0 \%$ while private university institutions accounted for only $24.0 \%$ of the population of administrative staff in university institutions in the country. Whereas private Full-Fledged Universities had 19.4\%
of the total administrative staff in all Full-Fledged Universities, public Full-Fledged Universities had 80.6\%. In contrast, private University Campuses, Centres and Institutes had more administrative staff (68.5\%) than public University Campuses, Centres and Institutes (43.1\%).

Regarding their positions, a significant part of the administrative staff in university institutions were Attendants, Accountants, Librarians, and Personal Secretaries. These cadres accounted for $10.5 \%, 9.0 \%, 8.9 \%$ and $8.3 \%$, respectively of the total population of administrative staff.

The results showed further that members of administrative staff had diverse qualifications. However, a significant proportion of them ( $n=1,529 ; 12.37 \%$ ) had a Certificate in various disciplines. About 8.3\% ( $\mathrm{n}=1,113$ ) and $6.0 \%(\mathrm{n}=765)$ were holders of Bachelor and Master Degrees, respectively while about $12.0 \%$ ( $\mathrm{n}=1,051$ ) were holders of Ordinary Diploma. Secondary and primary education represented $4.5 \%(n=563)$ and $2.2 \%(n=391)$, respectively of the total population of administrative staff in university institutions. Less than $1 \%(n=66)$ of the total administrative staff were PhD holders.

## CHAPTER 6

## Academic Programmes in University Institutions

### 6.1 Introduction

Chapters Four and Five, respectively looked at numbers and qualifications of academic and administrative staff in university institutions. In this Chapter, the focus is on the academic programmes that were offered in university institutions during the 2017/2018 academic year disaggregated by various aspects or analysis domains including programme clusters, type of institution and ownership of institution. The main purpose of this chapter is to inform stakeholders on the various programmes that university institutions offer in Tanzania, with the intention of uncovering most popular and least popular programmes in university institutions in relation to development objectives of the nation.

Programmes on offer in university institutions range from PhD to certificates and vary in number from one institution to another. Furthermore, programmes cover a wide range of areas or clusters. Other programmes are specific to particular institutions and aim to promote a particular field of study consistent with the vision and mission of the concerned institution.

This chapter provides an analysis of programmes that were on offer during the 2017/2018 academic year disaggregated by various aspects or analysis domains including award level, type of institution and ownership of institution. Data from 53 university institutions were analysed.

### 6.2 Number of Programmes

A total of 1,582 programmes were on offer in the 53 university institutions during the $2017 / 2018$ academic year. The mean (SD) number of programmes per institution was about 30 (34) programmes with a range of 171 (minimum 2 and maximum 173) programmes. The median number of programmes was 17 (Table 20).

Table 20: Descriptive statistics of programmes on offer 2017/2018

| Summary statistic | Estimated value |
| :--- | :---: |
| Mean | 30 |
| Standard deviation | 34 |
| Range | 171 |
| Minimum | 2 |
| Maximum | 173 |
| Sum | 1,582 |
| Percentile |  |
|  | 25 |
|  |  |
|  | 70 |

### 6.3 Programmes by Award Level and Type of Institution

Table 21 gives a summary of programmes that were on offer per award level and type of institutions during the 2017/2018 academic year. Of the total programmes that were on offer, 556 (35.1\%) were Bachelor's degree programmes while 377 (23.8\%) were Master degree programmes. Diplomas and Certificates accounted for $18.0 \%(\mathrm{n}=285)$ and $15.4 \%(\mathrm{n}=243)$, respectively.

The results show further that Full-Fledged Universities offered largely Bachelor ( $\mathrm{n}=465 ; 37.0 \%$ ) and Master ( $\mathrm{n}=335 ; 26.7 \%$ ) degree programmes, followed by Diplomas ( $\mathrm{n}=189$; 15.0\%) and Certificates ( $\mathrm{n}=151$; 12.0\%). On the other hand, University Campuses, Centres and Institutes offered mainly Diplomas and Certificates. Besides Bachelor degree programmes, Certificates and Diplomas were also widespread in University Colleges (Table 21).

Table 21: Programmes by award level and type of institution

| Type of institution | Number of Institutions | Programmes by award level or level of education |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Certificate | Diploma | Higher Diploma | Advanced Diploma | Bachelor Degree | Postgradua te Diploma | Master <br> Degree | Doctorat <br> e Degree |  |
| Full-Fledged Universities | 31 | 151 | 189 | 4 | 1 | 465 | 38 | 335 | 74 | 1,257 |
| University Colleges | 15 | 54 | 63 | 0 | 0 | 76 | 2 | 33 | 1 | 229 |
| University Campuses, Centres and Institutes | 7 | 38 | 33 | 0 | 0 | 15 | 1 | 9 | 0 | 96 |
| Total | 53 | 243 | 285 | 4 | 1 | 556 | 41 | 377 | 75 | 1,582 |

### 6.4 Programmes on Offer by Cluster

As per Section 3.1.2.1 of the Second Edition of the Quality Assurance Guidelines and Minimum Standards for Provision of University Education in Tanzania, 2014, and academic cluster means "a group of academic programmes organized around thematic and related academic or professional disciplines".

In total, there were 1,582 programmes that were on offer during the period under reference and these were grouped into eighteen (18) clusters based on the above description of an academic cluster. Table 22 provides the total number of programmes per cluster. As seen from the table, the most popular (top five) clusters (number of programmes in braces) were Business ( $\mathrm{n}=290$ ), Medicine, Veterinary and Health Sciences ( $\mathrm{n}=244$ ), Education ( $\mathrm{n}=218$ ), Social Sciences ( $\mathrm{n}=178$ ) and Information and Communication Technology or ICT ( $\mathrm{n}=120$ ). These five (5) clusters accounted for about $66.0 \%$ of the total programmes that were on offer during 2017/2018 academic year. The last five (5) clusters in terms of number of programmes (in decreasing order of magnitude of number of programmes) that were on offer were Tourism and Hospitality Studies ( $\mathrm{n}=28$ ), Library, Archive and Museum Studies ( $\mathrm{n}=27$ ), Life Sciences ( $\mathrm{n}=20$ ), Mining and Earth Sciences ( $\mathrm{n}=17$ ), and General ( $\mathrm{n}=6$ ).

Table 22: Programmes by cluster in university institutions

| SN | Programme Cluster | Total |
| :---: | :--- | ---: |
| 1 | Business | 290 |
| 2 | Medicine, Veterinary and Health Sciences | 244 |
| 3 | Education | 218 |
| 4 | Social Sciences | 178 |
| 5 | Information and Communication Technology | 120 |
| 6 | Law | 85 |
| 7 | Engineering | 81 |
| 8 | Humanities and Arts | 73 |
| 9 | Agriculture | 44 |
| 10 | Architecture and planning | 42 |
| 11 | Environmental Science or Studies and Forestry | 42 |
| 12 | Journalism Media Studies and Communication | 35 |
| 13 | Physical Sciences and Mathematics | 32 |
| 14 | Tourism and Hospitality Studies | 28 |
| 15 | Library, Archive and Museum Studies | 27 |
| 16 | Life Sciences | 20 |
| 17 | Mining and Earth Sciences | 17 |
| 18 | General | 6 |
|  | Total | 1,582 |

### 6.5 Programmes by Field of Study and Ownership of Institution

Variations were observed between public and private university institutions in terms of number of programmes per cluster. In general, of the total 1,582 programme that were on offer during the period under reference (2017/2018), 863 (54.6\%) programmes were offered in public university institutions while the remaining 719 (45.4\%) programmes were offered in private university institutions (Table 23). Further analysis revealed that private institutions had more programmes compared to public university institutions that were on offer during the $2017 / 2018$ academic year in four (4) clusters, namely Business, Education, Law, and Journalism Media Studies and Communication. In all the remaining programme clusters, public university institutions had more programmes that were on offer. In particular, public university institutions had relatively large number of programmes compared to that of private university institutions in Mining and Earth Sciences, Agriculture, Environmental Science or Studies and Forestry, Life Sciences, Physical Sciences and Mathematics, and Engineering clusters as shown in Table 23.

Table 23: Programmes by cluster and ownership of institution

| SN | Programme Cluster | Ownership of University institutions |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \% |  | \% |  |  |
|  |  | Public | Public | Private | Private |  |
| 1 | Business | 106 | 36.6 | 184 | 63.4 | 290 |
| 2 | Medicine, Veterinary and Health Sciences | 130 | 53.3 | 114 | 46.7 | 244 |
| 3 | Education | 86 | 39.4 | 132 | 60.6 | 218 |
| 4 | Social Sciences | 95 | 53.4 | 83 | 46.6 | 178 |
| 5 | Information and Communication Technology | 67 | 55.8 | 53 | 44.2 | 120 |
| 6 | Law | 23 | 27.1 | 62 | 72.9 | 85 |
| 7 | Engineering | 64 | 79.0 | 17 | 21.0 | 81 |
| 8 | Humanities and Arts | 56 | 76.7 | 17 | 23.3 | 73 |
| 9 | Agriculture | 42 | 95.5 | 2 | 4.5 | 44 |
| 10 | Architecture and Planning | 40 | 95.2 | 2 | 4.8 | 42 |
| 11 | Environmental Science or Studies and Forestry Journalism Media Studies and | 40 | 95.2 | 2 | 4.8 | 42 |
| 12 | Communication | 13 | 37.1 | 22 | 62.9 | 35 |
| 13 | Physical Sciences and Mathematics | 28 | 87.5 | 4 | 12.5 | 32 |
| 14 | Tourism and Hospitality Studies | 19 | 67.9 | 9 | 32.1 | 28 |
| 15 | Library, Archive and Museum Studies | 14 | 51.9 | 13 | 48.1 | 27 |
| 16 | Life Sciences | 18 | 90.0 | 2 | 10.0 | 20 |
| 17 | Mining and Earth Sciences | 17 | 100.0 | 0 | 0.0 | 17 |
| 18 | General | 5 | 83.3 | 1 | 16.7 | 6 |
|  | Total | 863 | 54.6 | 719 | 45.4 | 1,582 |

### 6.6 Programmes by Cluster and Type of Institution

More than three-quarter ( $\mathrm{n}=1,257$; 79.5\%) of the total programmes that were on offer in university institutions during the 2017/2018 academic year were from Full-Fledged Universities. University Colleges accounted for $14.5 \%(\mathrm{n}=229)$ while University Campuses, Centres and Institutes contributed 6.1\% ( $\mathrm{n}=96$ ) of the total programmes that were on offer in the 2017/2018 academic year (Table 24).

Detailed information on number of programmes in each cluster per award level for each institution type is given in Tables 25 through 27.

Table 24：Programme by award level and institution type

|  |  | Programmes by level of education |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SN | Type of Institution |  |  |  |  |  |  |  |  |  | त⿹⿺㇉一⿰口口 |
|  | Full－Fledged |  |  |  |  |  |  |  |  |  |  |
| 1 | Universities | 31 | 151 | 189 | 4 | 1 | 465 | 38 | 335 | 74 | 1，257 |
| 2 | University Colleges | 15 | 54 | 63 | 0 | 0 | 76 | 2 | 33 | 1 | 229 |
|  | University |  |  |  |  |  |  |  |  |  |  |
| 3 | Campuses，Centres and Institutes | 7 | 38 | 33 | 0 | 0 | 15 | 1 | 9 | 0 | 96 |
|  | Total | 53 | 243 | 285 | 4 | 1 | 556 | 41 | 377 | 75 | 1，582 |

Table 25：Programme by field of education in Full－Fledged Universities

| SN | Field of education | Award level or level of education |  |  |  |  |  |  |  | \＃ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \pi \\ & \tilde{\pi} \\ & \text { II } \end{aligned}$ |  |  |  |  |  |  |  |
|  | Medicine，Veterinary and Health |  |  |  |  |  |  |  |  |  |
| 1 | Sciences | 19 | 36 | 0 | 1 | 36 | 0 | 108 | 3 | 203 |
| 2 | Business | 43 | 40 | 3 | 0 | 71 | 6 | 24 | 2 | 189 |
| 3 | Education | 13 | 30 | 0 | 0 | 74 | 11 | 25 | 4 | 157 |
| 4 | Social Sciences | 11 | 14 | 0 | 0 | 55 | 4 | 50 | 9 | 143 |
|  | Information and Communication |  |  |  |  |  |  |  |  |  |
| 5 | Technology | 20 | 24 | 1 | 0 | 34 | 2 | 12 | 4 | 97 |
| 6 | Engineering | 0 | 9 | 0 | 0 | 34 | 2 | 14 | 11 | 70 |
| 7 | Humanities and Arts | 1 | 1 | 0 | 0 | 47 | 0 | 11 | 5 | 65 |
| 8 | Law | 11 | 10 | 0 | 0 | 14 | 4 | 17 | 3 | 59 |
| 9 | Agriculture | 5 | 2 | 0 | 0 | 19 | 1 | 15 | 2 | 44 |
| 10 | Architecture and planning | 2 | 2 | 0 | 0 | 14 | 5 | 9 | 10 | 42 |
| 11 | Environmental Science or Studies and Forestry | 0 | 2 | 0 | 0 | 14 | 2 | 18 | 6 | 42 |
| 12 | Physical Sciences and Mathematics Journalism Media Studies and | 1 | 1 | 0 | 0 | 14 | 0 | 11 | 4 | 31 |
| 13 | Communication | 7 | 5 | 0 | 0 | 9 | 1 |  | 2 | 28 |
| 14 | Tourism and Hospitality Studies | 11 | 5 | 0 | 0 | 8 | 0 | 1 | 0 | 25 |
| 15 | Life Sciences | 0 | 1 | 0 | 0 | 7 | 0 | 9 | 3 | 20 |
|  | Library，Archive and Museum |  |  |  |  |  |  |  |  |  |
| 16 | Studies | 5 | 5 | 0 | 0 | 4 | 0 | 5 | 0 | 19 |
| 17 | Mining and Earth Sciences | 1 | 2 | 0 | 0 | 11 | 0 | 2 | 1 | 17 |
| 18 | General | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 6 |
|  | Total | 151 | 189 | 4 | 1 | 465 | 38 | 335 | 74 | 1，257 |

Table 26: Programme by field of education in University Colleges

| SN Field of education |  | Award level |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{aligned} & \stackrel{\vdots}{0} \\ & \text { d } \\ & \text { U } \\ & \tilde{0} \\ & \end{aligned}$ |  |  |  | - |
| 1 | Business | 21 | 17 | 10 | 0 | 4 | 0 | 52 |
| 2 | Education | 1 | 10 | 26 | 2 | 7 | 0 | 46 |
| 3 | Medicine, Veterinary and Health Sciences | 6 | 6 | 9 | 0 | 19 | 1 | 41 |
| 4 | Social Sciences | 4 | 8 | 7 | 0 | 2 | 0 | 21 |
| 5 | Information and Communication Technology | 7 | 6 | 3 | 0 | 0 | 0 | 16 |
| 6 | Law | 6 | 5 | 5 | 0 | 0 | 0 | 16 |
| 7 | Engineering | 0 | 5 | 6 | 0 | 0 | 0 | 11 |
| 8 | Humanities and Arts | 1 | 2 | 4 | 0 | 1 | 0 | 8 |
| 9 | Library, Archive and Museum Studies | 4 | 3 | 1 | 0 | 0 | 0 | 8 |
| 10 | Journalism Media Studies and Communication | 3 | 1 | 3 | 0 | 0 | 0 | 7 |
| 11 | Tourism and Hospitality Studies | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 12 | Physical Sciences and Mathematics | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 13 | Agriculture | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | Architecture and planning | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | Environmental Science or Studies and Forestry | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | General | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | Life Sciences | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | Mining and Earth Sciences | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Total | 54 | 63 | 76 | 2 | 33 | 1 | 229 |

Table 27: Programme by field of education in University Campuses, Centres and Institutes

| SN | Field of education | Award level |  |  |  |  | 픙 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| 1 | Business | 20 | 18 | 6 | 0 | 5 | 49 |
| 2 | Education | 3 | 4 | 6 | 1 | 1 | 15 |
| 3 | Social Sciences | 6 | 4 | 1 | 0 | 3 | 14 |
| 4 | Law | 5 | 4 | 1 | 0 | 0 | 10 |
| 5 | Information and Communication Technology | 4 | 3 | 0 | 0 | 0 | 7 |
| 6 | Tourism and Hospitality Studies | 0 | 0 | 1 | 0 | 0 | 1 |
| 7 | Agriculture | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Architecture and planning | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | Engineering | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | Environmental Science or Studies and Forestry | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | General | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | Humanities and Arts | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 | Journalism Media Studies and Communication | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | Library, Archive and Museum Studies | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | Life Sciences | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | Medicine, Veterinary and Health Sciences | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | Mining and Earth Sciences | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | Physical Sciences and Mathematics | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Total | 38 | 33 | 15 | 1 | 9 | 96 |

### 6.7 Summary

More than one thousand five hundred programmes (i.e., 1,582) were on offer from among 53 university institutions during the 2017/2018 academic year. The mean (SD) number of programmes per institution was about 30 (34) programmes with a range of 171 (minimum 2 and maximum 173) programmes. The median number of programmes was 17 programmes. Of the total programmes that were on offer, 556 (35.1\%) were Bachelor degree programmes while 377 (23.8\%) were Master degree programmes. Diplomas and Certificates accounted for 18.0\% ( $\mathrm{n}=285$ ) and $15.4 \%$ ( $\mathrm{n}=243$ ), respectively. Seventy-five ( $4.7 \%$ ) of the total programmes in university institutions were PhD programmes, which were offered mainly in Full-Fledged Universities, which had 74 (99.7\%) of the PhD programmes in these Universities.

The analysis revealed that Full-Fledged Universities had 1,257 (79.5\%) programmes, University Colleges had 229 (14.5\%) programmes while University Campuses, Centres and Institutes had 96 (6.1\%) programmes. Moreover, Full-Fledged Universities offered largely Bachelor ( $\mathrm{n}=465$; 37.0\%) and Master ( $\mathrm{n}=335$; 26.7\%) degree programmes, followed by Diplomas ( $\mathrm{n}=189$; 15.0\%) and Certificates ( $\mathrm{n}=151$; 12.0\%). University Campuses, Centres and Institutes offered mainly Certificates ( $\mathrm{n}=38 ; 39.6 \%$ ) and Diplomas ( $\mathrm{n}=33$; 34.4\%). Besides Bachelor's degree programmes, which were 76 (33.2\%), Certificates ( $\mathrm{n}=54 ; 23.6 \%$ ) and Diplomas ( $\mathrm{n}=63 ; 27.5 \%$ ) were also widespread in University Colleges.

In terms of programme cluster, the total 1,582 programmes that were on offer during the period under reference were grouped into eighteen (18) clusters, the leading clusters in terms of number of programmes were Business ( $\mathrm{n}=290$ ), Medicine, Veterinary and Health Sciences ( $\mathrm{n}=244$ ), Education ( $\mathrm{n}=218$ ), Social Sciences ( $\mathrm{n}=178$ ) and Information and Communication Technology or ICT ( $\mathrm{n}=120$ ). These clusters cumulatively accounted for about $66.0 \%$ of the total programmes that were on offer during $2017 / 2018$ academic year. On the other hand, the five (5) clusters that had the least number of programmes were Tourism and Hospitality Studies ( $\mathrm{n}=28$ ), Library, Archive and Museum Studies ( $\mathrm{n}=27$ ), Life Sciences ( $\mathrm{n}=20$ ), Mining and Earth Sciences ( $\mathrm{n}=17$ ), and General ( $\mathrm{n}=6$ ).

Further, of the total 1,582 programme that were on offer, 863 (54.6\%) were offered in public university institutions while the remaining 719 (45.4\%) programmes were offered in private university institutions. Additionally, private institutions had more programmes compared to public university institutions that were on offer during 2017/2018 academic year in four (4) clusters, namely Business (n=184; 63.4\% private vs. $\mathrm{n}=106 ; 36.6 \%$ public), Education ( $\mathrm{n}=132$; $60.6 \%$ private vs. $\mathrm{n}=86 ; 39.4 \%$ public), Law ( $\mathrm{n}=62 ; 72.9 \%$ private vs. $\mathrm{n}=23 ; 27.1 \%$ public), and Journalism Media Studies and Communication ( $\mathrm{n}=22 ; 62.9 \%$ private vs. $\mathrm{n}=13 ; 37.1 \%$ public). In all the remaining programme clusters, public university institutions had more programmes that were on offer. In particular, public university institutions had relatively more programmes compared to that of private university institutions in the following clusters: Mining and Earth Sciences ( $\mathrm{n}=17$; 100.0\% public vs. $\mathrm{n}=0$; 0\% private), Agriculture ( $\mathrm{n}=42$; $95.5 \%$ public vs. $\mathrm{n}=2 ; 4.5 \%$ private), Environmental Science or Studies and Forestry ( $\mathrm{n}=40$; $95.2 \%$ public vs. $\mathrm{n}=2 ; 4.8 \%$ private), Life Sciences ( $\mathrm{n}=18$; $90.0 \%$ public vs. $\mathrm{n}=2 ; 10.0 \%$ private), Physical Sciences and Mathematics ( $\mathrm{n}=28$; $87.5 \%$ public vs. $n=4 ; 12.5 \%$ private), and Engineering ( $n=64 ; 79.0 \%$ public vs. $\mathrm{n}=17 ; 21.0 \%$ private).

## CHAPTER 7

## Undergraduate Students' Admission in University Institutions

### 7.1 Introduction

Having seen the population of academic and administrative staff, and number of programmes on offer in university institutions (i.e., Full-Fledged Universities, University Colleges, University Campuses, Centres and Institute), it is now suitable to have a look at students' admission in these institutions. Therefore, this chapter looks at trends in undergraduate students' admission in university institutions from the 2012/2013 to 2017/2018 academic years or admission cycles, the main aim being to reveal profiles of admission of students in various undergraduate degree programmes in public and private university institutions in the country. In this chapter, data on undergraduate students' admissions from 66 university institutions were analysed.

### 7.2 Total Students' Admission in University Institutions

Admission of students into various academic programmes in university institutions has been varying from year to year. Overall, there has been an increasing demand for higher education in the country. Between 2012/2013 and 2016/2017 academic years, the number of students admitted into various degree and non-degree programmes in university institutions increased by about $36 \%$ (from 38,610 students admitted during the 2012/2013 academic year to 52,467 students admitted during the 2016/2017 academic year). However, the number of admitted students decreased by $5.0 \%$ (from 52,467 students admitted during the $2016 / 2017$ academic year to 49,818 students admitted during 2017/2018 academic year. The decline in total students' admission observed during the $2017 / 2018$ academic year is mainly due to the admission ban, which suspended admission of students into nineteen (19) institutions that was issued by the Commission during the 2017/2018 academic year. Further, some institutions, which were still running were forbidden not to admit students in several degree programmes. The decision was informed by the Report on Special Academic Audit, which was conducted in all higher learning institutions in the country in 2016. The Audit Report identified a number of shortfalls, which were to be addressed by the concerned institutions to the satisfaction of the Commission.

When the data were broken down by sex, the results revealed that the total number of male students admitted into various academic programmes in university institutions has been consistently large than their counterpart female students as Figure 10 displays. Further analysis revealed that the ratio of female to male (in percent) in total admission has been fluctuating from time to time, sometimes increasing and sometimes decreasing, but generally displays an increasing trend as Figure 11 shows.


Figure 10: Students' admission in university institutions 2012/13-2017/18


Figure 11: Female to male ratio of students' admission in university institutions 2012/13-2017/18

### 7.3 Students' Admission by Ownership of Institution

### 7.3.1 Students' Admission in Public University Institutions

Admission of students in public university institutions displays an overall increasing trend (Figure 12). Between the 2012/2013 and the 2017/2018 academic years, the number of students admitted into various academic programmes in public university institutions increased nearly twofold (increased from 18,910 students admitted during 2012/2013 academic year to 36,474 students admitted during the 2017/2018 academic year).

In order to understand the magnitude of gender disparity in students' admission in public university institutions, the data were further broken down by sex of students. According to the results (Figure 12), the profile of number of
female students admitted into various academic programmes was constantly lower than that of male students. A profile of female to male ratio (percent) is given in Figure 13 from which it is clear that the female to male ratio of admission in public university institutions generally displays an increasing trend, though when individual academic years are considered, there seems to be a random pattern.


Figure 12: Trends in students' admission in public university institutions 2012/13-2017/18


Figure 13: Female to male ratio of admission in public university institutions 2012/13-2017/18

### 7.3.2 Students' Admission in Private University Institutions

Unlike in public university institutions, admission of students in private university institutions displays an overall decreasing trend for the period under reference. Students' total admission dropped from 19,700 students admitted during the $2016 / 2017$ academic year to 13,444 students who were admitted during the
$2017 / 2018$ academic year (Figure 14). This is equivalent to about $32.3 \%$ reduction in total admission between the 2012/2013 and the 2017/2018 admission cycles, but a reduction of about $46.0 \%$ between the $2016 / 2017$ and $2017 / 2018$ admission cycles. As noted hitherto, the observed overall significant reduction in total students' admission that occurred during the 2017/2018 academic year was caused by the ban in admission that was issued by the Commission to several institutions due to quality issues.


Figure 14: Trends in admission in private university institutions 2012/132017/18

As was the case in public university institutions, female students who were admitted into various academic programmes in private university institutions were also consistently lower than male students. However, the magnitude of the gap displayed a decreasing trend from the 2012/2013 to the 2014/2015 academic years and an increasing trend in the remaining subsequent academic years for the period under reference (Figure 15). In addition, the ratio (percent) between female and male students is much higher in private university institutions than is the case in public university institutions. This suggests that female students were more likely to be admitted in private university institutions than in corresponding public university institutions. Table 29 gives a list of individual private university institutions and their corresponding number of students who were admitted into these institutions between the 2012/2013 and the 2017/2018 admission cycles.


Figure 15: Female to male ratio of admission in private university institutions 2012/13-2017/18

### 7.4 Students' Admission by Type of Institution

In this chapter as is the case in the other chapters in this book, it was also considered necessary to provide associated statistics by type of institutions (i.e., Full-Fledged Universities, University Colleges, University Campuses, Centres and Institute) in order to inform readers how the profile of students' admission behaves over time in each type of institution. Therefore, the following sections give students admission statistics in the different types of institutions between the 2012/2013 and the 2017/2018 admission cycles.

### 7.4.1 Students' Admission in Public Full-Fledged Universities

Table 28 gives a list of the individual public Full-Fledged University institutions and the corresponding number of students who were admitted into these institutions between the 2012/2013 and the 2017/2018 admission cycles. These include students who were admitted into various public foreign universities in Algeria and Mozambique through scholarships. Trends in students' admission (total and disaggregated by sex) for these institutions are provided in Figure 16, which shows an overall increasing trend. Between the 2012/2013 and the $2017 / 2018$ admission cycles, the number of students admitted into various academic programmes in public universities increased from 16,563 students admitted during the 2012/2013 admission cycle to 30,596 students admitted during the $2017 / 2018$ admission cycle. This is equivalent to $85.0 \%$ increase between the two time points, that is, between the 2012/2013 and the 2017/2018 admission cycles. The profile of female to male ratio (percent) is given in Figure 17, which also shows an overall increasing trend for the period under reference, suggesting that, generally, relative to male students, admission of female students
in public universities has been gradually increasing. That is, as evidenced in Table 28, the total number of female students admitted into public universities has been increasing at a reasonably high rate compared to that of male students over the entire period under reference.


Figure 16: Trends in admission in public Full-Fledged Universities 2012/132017/18


Figure 17: Female to male ratio of admission in public Full-Fledged Universities 2012/13-2017/18

Table 28: Students admitted into public Full-Fledged Universities 2012/13-2017/18 admission cycles


Note: $F=$ female; $M=$ Male; $T=$ Total

### 7.4.2 Students' Admissions in Private Full-Fledged Universities

In Section 7.4.1, it noted that of the total 32 universities, which are analysed in this chapter, ten (10) are public universities. Accordingly, the remaining twenty-two (22) are private universities. Table 29 gives a list of these individual private Universities and their corresponding number of students who were admitted into these Universities between the 2012/2013 and the 2017/2018 admission cycles disaggregated by sex. Trends in students' admission (total and disaggregated by sex) for these Universities are provided in Figure 18, which shows an overall decreasing trend. Between the 2012/2013 and the 2017/2018 admission cycles, the total number of students (top profile) admitted into various academic programmes in private universities decreased from 14,425 students admitted during the 2012/2013 admission cycle to 10,919 students admitted during the $2017 / 2018$ admission cycle. This is equivalent to $24.3 \%$ decrease between the two time points, that is, between the 2012/2013 and the $2017 / 2018$ admission cycles.

The profile of female to male ratio (in percent) is given in Figure 19, which shows a decreasing trend in the first four admission cycles and an increasing trend in the last two years. Overall, the profile is somewhat flatter and that across all admission cycles, the ratio between females and males is larger in private universities than in public universities. This suggests that female students were more likely to be admitted in private universities than were in public universities.

| 20,000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Figure 18: Trends in admission in private Full-Fledged Universities 2012/132017/18


Figure 19: Female to male ratio of admission in private Full-Fledged Universities 2012/13-2017/18

Table 29: Students admitted into private Full-Fledged Universities 2012/13-2017/18 admission cycles

|  |  | 2012/2013 |  |  | 2013/2014 |  |  | 2014/2015 |  |  | 2015/2016 |  |  | 2016/2017 |  |  | 2017/2018 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SN | Name of University institution | F | M | T | F | M | T | F | M | T | F | M | T | F | M | T | F | M | T |
| 1 | AbdulRahman Al-Sumait University | 434 | 255 | 689 | 393 | 275 | 668 | 208 | 127 | 335 | 154 | 111 | 265 | 223 | 126 | 349 | 75 | 72 | 147 |
| 2 | Aga Khan University Catholic University of Health and Allied | 15 | 3 | 18 | 22 | 5 | 27 | 17 | 3 | 20 | 25 | 3 | 28 | 11 | 8 | 19 | 31 | 6 | 37 |
| 3 | Sciences | 76 | 116 | 192 | 109 | 177 | 286 | 203 | 269 | 472 | 211 | 294 | 505 | 184 | 278 | 462 | 116 | 183 | 299 |
| 4 | Eckernforde Tanga University | 135 | 195 | 330 | 80 | 177 | 257 | 18 | 53 | 71 | 26 | 43 | 69 | 163 | 272 | 435 |  | - | - |
| 5 | Hubert Kairuki Memorial University International Medical and Technological | 72 | 100 | 172 | 124 | 101 | 225 | 160 | 112 | 272 | 138 | 136 | 274 | 122 | 184 | 306 | 138 | 146 | 284 |
| 6 | University <br> Jomo Kenyatta University of Agriculture and | 102 | 160 | 262 | 196 | 238 | 434 | - | - | - | 98 | 223 | 321 | - | ${ }^{-}$ | ${ }^{-}$ |  | - | - |
| 7 | Technology | 6 | 6 | 12 | 7 | 20 | 27 | 9 | 17 | 26 | 8 | 7 | 15 | 17 | 30 | 47 | - | - | - |
| 8 | Kampala International University in Tanzania | 66 | 77 | 143 | 273 | 422 | 695 | 401 | 721 | 1,122 | 382 | 783 | 1,165 | 474 | 1,009 | 1,483 | - | - |  |
| 9 | Mount Meru University | 172 | 239 | 411 | 158 | 243 | 401 | 122 | 214 | 336 | 76 | 136 | 212 | 134 | 230 | 364 | 16 | 9 | 25 |
| 10 | Muslim University of Morogoro | 348 | 508 | 856 | 307 | 538 | 845 | 225 | 459 | 684 | 273 | 681 | 954 | 255 | 530 | 785 | 271 | 478 | 749 |
| 11 | Mwenge Catholic University | 272 | 635 | 907 | 364 | 811 | 1,175 | 294 | 687 | 981 | 315 | 848 | 1,163 | 593 | 818 | 1,411 | 685 | 1,339 | 2,024 |
| 12 | Ruaha Catholic University | 339 | 695 | 1,034 | 308 | 627 | 935 | 267 | 761 | 1,028 | 241 | 656 | 897 | 382 | 633 | 1,015 | 417 | 562 | 979 |
| 13 | Sebastian Kolowa Memorial University | 66 | 97 | 163 | 179 | 355 | 534 | 143 | 244 | 387 | 179 | 412 | 591 | 238 | 353 | 591 | - | - | - |
| 14 | St. Augustine University in Tanzania | 1,062 | 1,910 | 2,972 | 769 | 1,421 | 2,190 | 1,068 | 1,847 | 2,915 | 640 | 1,218 | 1,858 | 1,145 | 1,440 | 2,585 | 1,523 | 2,149 | 3,672 |
| 15 | St. Johns University of Tanzania | 612 | 946 | 1,558 | 474 | 638 | 1,112 | 404 | 662 | 1,066 | 529 | 880 | 1,409 | 751 | 962 | 1,713 | 461 | 714 | 1,175 |
| 16 | Teofilo Kisanji University | 375 | 622 | 997 | 462 | 1,172 | 1,634 | 244 | 579 | 823 | 190 | 451 | 641 | 336 | 592 | 928 | - | - | - |
| 17 | Tumaini University Makumira | 419 | 427 | 846 | 503 | 813 | 1,316 | 259 | 461 | 720 | 311 | 645 | 956 | 535 | 719 | 1,254 | 347 | 408 | 755 |
| 18 | United African University of Tanzania | - | - | - | - | - | - | - | - | - | 10 | 49 | 59 |  | 26 | 26 | - | - | - |
| 19 | University of Arusha | 521 | 830 | 1,351 | 478 | 736 | 1,214 | 203 | 321 | 524 | 134 | 165 | 299 | 251 | 290 | 541 | 111 | 90 | 201 |
| 20 | University of Bagamoyo | 80 | 162 | 242 | 120 | 326 | 446 | 81 | 228 | 309 | 80 | 158 | 238 | - | - | - | - | - | - |
| 21 | University of lringa | 309 | 411 | 720 | 216 | 320 | 536 | 287 | 479 | 766 | 351 | 553 | 904 | 373 | 523 | 896 | 234 | 263 | 497 |
| 22 | Zanzibar University | 270 | 280 | 550 | 711 | 511 | 1,222 | 582 | 428 | 1,010 | 416 | 324 | 740 | 703 | 551 | 1,254 | 49 | 26 | 75 |
|  | Grand total | 5,751 | 8,674 | 14,425 | 6,253 | 9,926 | 16,179 | 5,195 | 8,672 | 13,867 | 4,787 | 8,776 | 13,563 | 6,890 | 9,574 | 16,464 | 4,474 | 6,445 | 10,919 |

Note: F=female; $M=$ Male; $T=$ Total

### 7.4.3 Students' Admission in Public University Colleges

In this section, data from two public University Colleges were analysed. Table 30 lists these University Colleges and their corresponding number of students (broken down by sex) who were admitted into these Colleges between the 2012/2013 and the 2017/2018 admission cycles. Trends in students' admission (total and disaggregated by sex) for these Colleges are provided in Figure 21, which shows an overall increasing trend. Between the $2012 / 2013$ and the $2017 / 2018$ admission cycles, the total number of students (top profile) admitted into various academic programmes in public University Colleges increased from 2,347 students admitted during 2012/2013 admission cycle to 4,560 students admitted during the $2017 / 2018$ admission cycle. This is equivalent to $94.3 \%$ increase between the two time points, that is, between the 2012/2013 and the 2017/2018 admission cycles.

The profile of female to male ratio (percent) is given in Figure 22, which shows a decreasing trend in the first four admission cycles and an increasing trend in the last two years. This suggests that relative to male students, the number of female students admitted into various academic programmes in public University Colleges has been fluctuating periodically - at times decreases while occasionally increases.


Figure 20: Trends in admission in public University Colleges 2012/13-2017/18


Figure 21: Female to male ratio of admission in public University Colleges 2012/13-2017/18

### 7.4.4 Students' Admission in Private University Colleges

In section 7.4.3, we noted that of the total 19 University Colleges, which are analysed in this chapter, only two (2) are public University Colleges (Table 30). Accordingly, the remaining seventeen (17) are private University Colleges. Table 31 gives a list of these individual private University Colleges and their corresponding number of students who were admitted into these Universities between the 2012/2013 and the 2017/2018 admission cycles. Trends in students' admission (total and disaggregated by sex) for these Colleges are provided in Figure 22, which shows an overall decreasing trend of population of students. Between the 2012/2013 and the 2017/2018 admission cycles, the total number of students (top profile) admitted into various academic programmes in private University Colleges decreased from 5,275 students admitted during 2012/2013 admission cycle to 1,621 students admitted during 2017/2018 admission cycle. This is equivalent to $69.3 \%$ decrease between the two time points, that is, between 2012/2013 and 2017/2018 admission cycles.

The profile of female to male ratio (percent) is given in Figure 23, which shows an overall increasing trend, though decreased in the first three academic years and increased in the last three years. The magnitude of the gap between females and males is more visible in the 2017/2018 admission cycle in which compared to previous admission cycles, the rate of increase of female students is relatively higher than that of male students.


Figure 22: Trends in admission in private University Colleges 2012/13-2017/18


Figure 23: Female to male ratio of admission in private University Colleges 2012/13-2017/18

Table 30: Students admitted into public University Colleges 2012/13-2017/18 admission cycles

| SN | Name of University institution | 2012/2013 |  |  | 2013/2014 |  |  | 2014/2015 |  |  | 2015/2016 |  |  | 2016/2017 |  |  | 2017/2018 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | M | T | F | M | T | F | M | T | F | M | T | F | M | T | F | M | T |
| 1 | Dar es Salaam University College of Education | 407 | 896 | 1,303 | 392 | 891 | 1,283 | 560 | 1,161 | 1,721 | 527 | 1,441 | 1,968 | 682 | 1,223 | 1,905 | 708 | 1,209 | 1,917 |
| 2 | Mkwawa University College of Education | 300 | 744 | 1,044 | 264 | 763 | 1,027 | 342 | 1,036 | 1,378 | 337 | 1,179 | 1,516 | 469 | 1,085 | 1,554 | 950 | 1,693 | 2,643 |
|  | Grand total | 707 | 1,640 | 2,347 | 656 | 1,654 | 2,310 | 902 | 2,197 | 3,099 | 864 | 2,620 | 3,484 | 1,151 | 2,308 | 3,459 | 1,658 | 2,902 | 4,560 |

Note: $F=$ female; $M=$ Male; $T=$ Total
Table 31: Students admitted into private University Colleges 2012/13-2017/18 admission cycles

| SN |  | 2012/2013 |  |  | 2013/2014 |  |  | 2014/2015 |  |  | 2015/2016 |  |  | 2016/2017 |  |  | $2017 / 2018$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Name of University institution | F | M | T | F | M | T | F | M | T | F | M | T | F | M | T | F | M | T |
| 1 | Archbishop James University College | - | - | - | - | - | - | 162 | 402 | 564 | 161 | 524 | 685 | 348 | 760 | 1,108 | - | - | - |
| 2 | Archbishop Mihayo University College of Tabora | 91 | 197 | 288 | 247 | 781 | 1,028 | 113 | 350 | 463 | 121 | 291 | 412 | 343 | 686 | 1,029 | - | - | - |
| 3 | Cardinal Rugambwa Memorial University College | - | - | - | - | - | - | - | - | - | - | - | - | 74 | 173 | 247 | - | - | - |
| 4 | Jordan University College | 248 | 477 | 725 | 361 | 557 | 918 | 256 | 422 | 678 | 293 | 431 | 724 | 434 | 618 | 1,052 | 108 | 155 | 263 |
| 5 | Josiah Kibira University College | 156 | 366 | 522 | 91 | 280 | 371 | 34 | 94 | 128 | 61 | 286 | 347 | 66 | 183 | 249 | 6 | 30 | 36 |
| 6 | Kilimanjaro Christian Medical College | 114 | 222 | 336 | 112 | 152 | 264 | 183 | 213 | 396 | 248 | 383 | 631 | 144 | 238 | 382 | - | - | - |
| 7 | Marian University College | - | - | - | - | - | - | - | - | - | 92 | 282 | 374 | 204 | 355 | 559 | - | - | - |
| 8 | St. Francis University College of Health and Allied Sciences St. Joseph University College of Agricultural Science and | 20 | 62 | 82 | 26 | 94 | 120 | 53 | 141 | 194 | 70 | 162 | 232 | - | - | - | - | - | - |
| 9 | Technology | ${ }^{-}$ | $\stackrel{-}{-}$ | $77^{\circ}$ | 150 | 469 | 619 | 122 | 453 | 575 | 125 | 355 | 480 | - | - | - | - | - | - |
| 10 | St. Joseph University College of Engineering and Technology | 215 | 532 | 747 | 199 | 859 | 1,058 | 497 | 1,635 | 2,132 | 349 | 1,313 | 1,662 | - | - | - | - | - | - |
| 11 | St. Joseph University College of Health and Allied Sciences | - | - | - | - | - | - | - | - | - | 173 | 307 | 480 | 64 | 143 | 207 | 35 | 106 | 141 |
| 12 | St. Joseph University College of Information Technology | - | - | - | 53 | 169 | 222 | 47 | 230 | 277 | 46 | 163 | 209 | - | - | - | - | - | - |
| 13 | St. Joseph University College of Management and Commerce | - | - | - | 18 | 46 | 64 | 1 | 6 | 7 | 1 |  | 1 | - | 1 | 1 | - | - | - |
| 14 | Stefano Moshi Memorial University College | 317 | 696 | 1,013 | 326 | 535 | 861 | 60 | 102 | 162 | 85 | 116 | 201 | 71 | 116 | 187 | 70 | 93 | 163 |
| 15 | Stella Maris Mtwara University College | 42 | 146 | 188 | 150 | 498 | 648 | 78 | 197 | 275 | 124 | 140 | 264 | 113 | 280 | 393 | 92 | 206 | 298 |
| 16 | Teofilo Kisanji University Dar es Salaam College | - | - | - | - | - | - | - | - | - | 68 | 46 | 114 | 82 | 112 | 194 | 11 | 17 | 28 |
| 17 | Tumaini University Dar es Salaam College | 530 | 844 | 1,374 | 341 | 319 | 660 | 261 | 235 | 496 | 375 | 290 | 665 | 404 | 396 | 800 | 368 | 324 | 692 |
|  | Grand total | 1,733 | 3,542 | 5,275 | 2,074 | 4,759 | 6,833 | 1,867 | 4,480 | 6,347 | 2,392 | 5,089 | 7,481 | 2,347 | 4,061 | 6,408 | 690 | 931 | 1,621 |

8 Note: $F=$ female; $M=$ Male; $T=$ Total

### 7.4.5 Students' Admission in Public and Private University Campuses, Centres and Institutes

In this section, data from one (1) public University Campus and twelve (12) private University Centres were analysed. Trends in students' admission in the public University Campus are presented in Figure 24 from which it is evident that that has been an overall increase in the number of students admitted into the Campus. A similar pattern is displayed by private University Campuses and Centres between the 2012/2013 until the 2015/2016 admission cycles. Afterwards, the number of admitted students demonstrates a decreasing trend as Figure 25 shows. The overall decreasing trend demonstrated in Figure 25 is largely due to the admission ban discussed previously.

Table 32 provides a list of the public and private University Campuses and Centres and their corresponding number of students (broken down by sex) who were admitted into these institutions between the 2012/2013 and the 2017/2018 admission cycles. As the table shows, several private University Centres did not admit students during the $2017 / 2018$ academic year.


Figure 24: Trends in admission in the public University Campus 2012/13-2017/18


Figure 25: Trends in admission in private University Campuses and Centres 2012/13-2017/18

Table 32: Students admitted into public and private University Campuses, Centres and Institutes 2012/13-2017/18 admission cycles

| SN | Name of University institution | 2012/2013 |  |  | 2013/2014 |  |  | 2014/2015 |  |  | 2015/2016 |  |  | 2016/2017 |  |  | 2017/2018 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | M | T | F | M | T | F | M | T | F | M | T | F | M | T | F | M | T |
| 1 | Mzumbe University Mbeya Campus* | - | - | - | 91 | 84 | 175 | 185 | 245 | 430 | 456 | 480 | 936 | 428 | 441 | 869 | 625 | 693 | 1,318 |
|  | Grand total | - | - | - | 91 | 84 | 175 | 185 | 245 | 430 | 456 | 480 | 936 | 428 | 441 | 869 | 625 | 693 | 1,318 |
| 1 | Kenyatta University Arusha Centre | - | - | - | - | - | - | - | - | - | - | - | - | 2 |  | 2 |  |  |  |
| 2 | Mount Meru University Mwanza Centre | - | - | - | - | - | - | - | - | - | 27 | 49 | 76 | 105 | 183 | 288 |  |  |  |
| 3 | St John's University of Tanzania Msalato Centre | - | - | - | - | - | - | - | - | - | 1 | 2 | 3 | - | - | - |  |  |  |
| 4 | St John's University of Tanzania St. Mark's Centre | - | - | - | 86 | 108 | 194 | 6 | 23 | 29 | 29 | 30 | 59 | 71 | 67 | 138 |  |  |  |
| 5 | St. Joseph University in Tanzania Arusha Campus | - | - | - | 120 | 358 | 478 | 163 | 664 | 827 | 144 | 619 | 763 | - | - | - |  |  |  |
| 6 | St. Augustine University in Tanzania Mbeya Centre | - | - | - | 33 | 99 | 132 | 107 | 304 | 411 | 113 | 265 | 378 | 195 | 317 | 512 | 242 | 452 | 694 |
| 7 | St. Augustine University of Tanzania Arusha Centre | - | - | - | - | - | - | - | - | - | 108 | 209 | 317 | 190 | 296 | 486 | 43 | 67 | 110 |
| 8 | St. Augustine University of Tanzania Bukoba Centre | - | - | - | - | - | - | - | - | - | 29 | 101 | 130 | - | - | - |  |  |  |
| 9 | Teofilo Kisanji University Tabora Centre | - | - | - | - | - | - | - | - | - | 3 | 10 | 13 | 19 | 36 | 55 |  |  |  |
| 10 | Tumaini University Mbeya Centre | - | - | - | - | - | - | 12 | 42 | 54 | 33 | 125 | 158 | 100 | 145 | 245 |  |  |  |
| 11 | University of Arusha Mbeya Centre | - | - | - | 1 | 7 | 8 | - | - | - | - | - | - | - | - | - |  |  |  |
| 12 | University of Arusha Buhare Centre | - | - | - | 5 | 3 | 8 | - | - | - | 8 | 12 | 20 | 8 | 25 | 33 |  |  |  |
|  | Grand total | - | - | - | 245 | 575 | 820 | 288 | 1,033 | 1,321 | 495 | 1,422 | 1,917 | 690 | 1,069 | 1,759 | 285 | 519 | 804 |

Note: $F=$ female; $M=$ Male; T=Total; *Public University Campus

### 7.5 Summary

The analysis in this chapter has revealed several key issues. First, admission of students into various academic programmes in university institutions has been varying from year to year. Overall, there has been an increasing demand for higher education in the country, which is demonstrated by an overall increasing trend of total students' admission into university institutions. For example, between the $2012 / 2013$ and the $2016 / 2017$ admission cycles, the number of students admitted into various degree and non-degree programmes in university institutions increased by about $36 \%$ (increased from 38,610 students admitted during the 2012/2013 admission cycle to 52,467 students admitted during the 2016/2017 admission cycle). However, the number of admitted students dropped by an amount equivalent to $5.0 \%$ (dropped from 52,467 students admitted during the 2016/2017 academic year to 49,818 students admitted during the 2017/2018 academic year. The reduction in total students' admission observed during the 2017/2018 admission cycle is predominantly due to the admission ban that was issued by the Commission to some university institutions following a Special Academic Audit that was conducted by TCU in 2016.

Second, for the admission cycles under reference, students admitted into various academic programmes in university institutions varied between females and males and between public and private university institutions. The total number of male students admitted into various academic programmes in university institutions has been consistently large than their counterpart female students. Whereas students' admission in public university institutions increased by about two times (increased from 18,910 students admitted during the $2012 / 2013$ academic year to 36,474 students admitted during the 2017/2018 academic year), students' admission in private university institutions dropped from 19,700 students admitted during the 2016/2017 academic year to 13,444 students who were admitted during the $2017 / 2018$ academic year. This is equivalent to about $32.3 \%$ reduction in total students' admission between the $2012 / 2013$ and the 2017/2018 admission cycles, but a reduction of about $46.0 \%$ between the 2016/2017 and the 2017/2018 admission cycles.

Third, students admitted into various academic programmes varied between types of institutions - Universities, University Colleges, and University Campuses, Centres and Institutes. For example, between the 2012/2013 and 2017/2018 admission cycles, the number of students admitted into various academic programmes in public Universities increased from 16,563 students admitted during the 2012/2013 admission cycle to 30,596 students admitted during the $2017 / 2018$ admission cycle - equivalent to $85.0 \%$ increase between the two time points. On the other hand, students' admission in private universities decreased from 14,425 students admitted during the $2012 / 2013$ admission cycle to 10,919 students admitted during 2017/2018 admission cycle - equivalent to $33.7 \%$ decrease between the two time points. Further, whereas students' admission in public University Colleges displays an overall increasing trend - increased from 2,347 students admitted during the 2012/2013 admission cycle to 4,560 students admitted during the 2017/2018 admission cycle - equivalent to $94.3 \%$ increase between the two time points; total students' admission in private University Colleges decreased from 5,275 students admitted during the 2012/2013
admission cycle to 1,621 students admitted during the $2017 / 2018$ admission cycle - equivalent to $69.3 \%$ decrease between the two time points, that is, between the 2012/2013 and the 2017/2018 admission cycles.

Profiles of admission of students into University Campuses and Centres varied between public and private institutions. In particular, the number of students admitted into the public University Campus demonstrated an overall increasing trend across all admission cycles. In contrast, number of students admitted into private University Campuses and Centres demonstrated an increasing trend until the 2015/2016, afterwards, decreased significantly.

## CHAPTER 8

## Students' Enrolment in University Institutions

### 8.1 Introduction

Chapter seven presented statistics on students' admission into various academic programmes (degree and non-degree) in public and private university institutions between the 2012/2013 and the 2017/2018 admission cycles in Tanzania. Having looked at students' admission over the past six years in Chapter seven, in this chapter, the focus is at the population of students in university institutions, that is, total number of students who were enrolled into various academic programmes (degree and non-degree) during the 2017/2018 academic year in university institutions. The analysis in this chapter was based on data collected from 55 university institutions - Universities, University Colleges, and University Campuses, Centres and Institutes.

### 8.2 Total Enrolled Students

During the period under reference, there were in total 177,963 students who were enrolled in various academic programmes across years of study in public and private university institutions in the country. The mean (SD) number of students per institution was about $3,236(4,783)$ students with a range of 25,900 (minimum 104 and maximum 26,004 ) students. The median number of students was 1,815 (Table 33).

Table 33: Descriptive statistics of students' enrolment 2017/18

| Summary statistic | Estimated value |
| :--- | :---: |
| Mean | 3,236 |
| Standard deviation | 4,783 |
| Range | 25,900 |
| Minimum | 104 |
| Maximum | 26,004 |
| Sum | 177,963 |
| Percentile |  |
| 25 | 856 |
|  | 50 |
| 75 | 1,815 |
| Skewness | 3,640 |

### 8.3 Students' Enrolment by Award Level by Sex

Of the total students who were enrolled, 109,407 ( $61.5 \%$ ) were males and the remaining 68,556 (38.5\%) were females. Overall, most of the students ( $\mathrm{n}=144,770$; $81.3 \%$ ) were enrolled in various Bachelor degree programmes followed by Diploma ( $\mathrm{n}=17,881$; 10.0\%) and Master's degree ( $\mathrm{n}=8,762$; 4.6\%) while PhD accounted for only $0.6 \%(\mathrm{n}=1,052)$ of the total population of enrolled students in all university institutions during the 2017/2018 academic year. Table 34 provides more details regarding the proportion of students who were enrolled in other various award levels by sex.

Table 34: Students' enrolment by award level and sex 2017/18

|  |  | Award level |  |  |  |  |  |  |
| :---: | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  | Certificate | Diploma | Bachelor <br> Degree | Postgraduate <br> Diploma | Master <br> Degree | Doctorate <br> Degree | Total |
| 1 | Sex |  |  | 9,456 | 90,982 | 290 | 5,293 | 781 |
| 2 | Female | 2,497 | 8,425 | 53,788 | 109 | 3,407 |  |  |
|  | Total | 5,102 | 17,881 | 144,770 | 396 | 8,762 | 1,052 | 177,963 |

### 8.4 Students' Enrolment by Ownership of Institution

When the data were broken down by ownership of institutions (public versus private), it was revealed that most of the students were enrolled in public ( $\mathrm{n}=108,012$; 60.7\%) as compared to private ( $\mathrm{n}=69,951 ; 39.3 \%$ ) university institutions. Figure 26 gives a graphical representation of students' enrolment by sex of student and type of institution during the 2017/18 academic year.


Figure 26: Students' enrolment by sex and institution ownership 2017/18

Further analysis of the data revealed that with the exception of certificate and diploma levels of education, the number of enrolled male students in university institutions was consistently higher than that of their counterpart female students in public university institutions than was the case in private university institutions. The observed gender differential in enrolment between male and female students was especially high for PhD studies ( $\mathrm{n}=781$; 74.2\% male versus $\mathrm{n}=271$; 25.8\% female students), Postgraduate Diploma ( $\mathrm{n}=290 ; 73.2 \%$ male versus $\mathrm{n}=106 ; 26.8 \%$ female students), Bachelor degree studies ( $\mathrm{n}=90,982 ; 62.8 \%$ male versus $\mathrm{n}=53,788 ; 37.2 \%$ female students) and Master's degree studies ( $\mathrm{n}=5,293 ; 60.4 \%$ male versus $\mathrm{n}=3,469 ; 39.6 \%$ female students). This is reflected in the overall bars in Figure 27. Further details regarding students' enrolment by sex in public and private university institutions per award level or level of education are provided in Table 35.


Figure 27: Students enrolment by sex and award level

### 8.5 Students' Enrolment by Type of Institution

Figure 28 gives students' enrolment rates by type of institution (Full-Fledged Universities, University Colleges, and University Campuses, Centres and Institutes). As the figure shows, a large proportion of the students ( $n=143,270$; 80.5\%) were enrolled in Full-Fledged Universities as compared to University Colleges ( $\mathrm{n}=26,194$; 14.7\%) and University Campuses, Centres and Institutes ( $\mathrm{n}=8,499 ; 4.8 \%$ ). Table 36 gives more details especially with respect to gender differentials in enrolment within and between types of institution for each level of education in the various university institutions.


Figure 28: Students' enrolment by type of institution 2017/18

Table 35: Students' enrolment by sex in public and private university institutions 2017/18

| Institution ownership | Enrolment by institution ownership and level of education or award level |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Certificate |  |  | Diploma |  |  | Bachelor Degree |  |  | Postgraduate Diploma |  |  | Master's Degree |  |  | Doctorate Degree |  |  |  |
|  |  | $\frac{\otimes}{\sum_{\sum}^{\pi}}$ | $\begin{gathered} \overline{\mathrm{O}} \\ \stackrel{1}{\circ} \end{gathered}$ | $$ | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | $\stackrel{\overline{\mathrm{O}}}{\stackrel{\circ}{\circ}}$ |  | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | $\begin{aligned} & \overline{\boxed{\circ}} \\ & \stackrel{0}{\circ} \end{aligned}$ |  | $\frac{\otimes}{\frac{0}{N}}$ | $\begin{aligned} & \overline{\mathrm{I}} \\ & \stackrel{\text { N }}{2} \end{aligned}$ |  | $\frac{0}{\sum_{2}^{01}}$ | $\begin{aligned} & \overline{\bar{\circ}} \\ & \stackrel{\text { N }}{2} \end{aligned}$ |  | $\frac{\mathbb{Q}}{\frac{0}{10}}$ | $\begin{aligned} & \text { 픙 } \\ & \hline \end{aligned}$ | Grand total |
| Public University institutions | 226 | 245 | 471 | 3,061 | 3,454 | 6,515 | 33,601 | 59,081 | 92,682 | 96 | 260 | 356 | 2,789 | 4,225 | 7,014 | 242 | 732 | 974 | 108,012 |
| Private University institutions | 2,271 | 2,360 | 4,631 | 5,364 | 6,002 | 11,366 | 20,187 | 31,901 | 52,088 | 10 | 30 | 40 | 680 | 1,068 | 1,748 | 29 | 49 | 78 | 69,951 |
| Grand total | 2,497 | 2,605 | 5,102 | 8,425 | 9,456 | 17,881 | 53,788 | 90,982 | 144,770 | 106 | 290 | 396 | 3,469 | 5,293 | 8,762 | 271 | 781 | 1,052 | 177,963 |

Table 36: Students' enrolment by type of institution and award level 2017/18

| SN | Award level | Institution type |  |  |  |  |  |  |  |  | Grand total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Full-Fledged Universities |  |  | University Colleges |  |  | University Campuses, Centres and Institutes |  |  |  |
|  |  | Female | Male | Total | Female | Male | Total | Female | Male | Total |  |
| 1 | Certificate | 1,862 | 1,898 | 3,760 | 310 | 276 | 586 | 325 | 431 | 756 | 5,102 |
| 2 | Diploma | 7,009 | 7,551 | 14,560 | 870 | 1,232 | 2,102 | 546 | 673 | 1,219 | 17,881 |
| 3 | Bachelor Degree | 44,063 | 72,448 | 116,511 | 7,410 | 15,585 | 22,995 | 2,315 | 2,949 | 5,264 | 144,770 |
| 4 | Postgraduate Diploma | 90 | 251 | 341 | 13 | 31 | 44 | 3 | 8 | 11 | 396 |
| 5 | Master Degree | 2,693 | 4,381 | 7,074 | 153 | 286 | 439 | 623 | 626 | 1,249 | 8,762 |
| 6 | Doctorate Degree | 263 | 761 | 1,024 | 8 | 20 | 28 |  |  |  | 1,052 |
|  | Grand total | 55,980 | 87,290 | 143,270 | 8,764 | 17,430 | 26,194 | 3,812 | 4,687 | 8,499 | 177,963 |

### 8.6 Students' Enrolment by Programme Cluster and Level of Education

The different programme clusters or field of education in university institutions in Tanzania are reproduced in Table 37 for easy of reference. Figure 29 gives enrolment rates in each of the different 18 programme clusters in public and private university institutions during the 2017/2018 academic year. As the figure displays, more than one-third ( $\mathrm{n}=66,888 ; 37.6 \%$ ) of the total population of students who were enrolled in various degree and non-degree programmes during the period under reference were pursuing Education related programmes at different levels. Medicine, Veterinary and Health Sciences; Business; Social Sciences; Law; and Engineering accounted for 13.8\% ( $\mathrm{n}=24,616$ ); 11.6\% ( $\mathrm{n}=20,591$ ); $9.1 \%(\mathrm{n}=16,258)$; $5.7 \%(\mathrm{n}=10,077)$; and $5.4 \%(\mathrm{n}=9,670)$, respectively of the total population of enrolled students. However, the enrolment rate of students in the Medicine, Veterinary and Health Sciences cluster was boosted by enrolment in certificate and diploma programmes. Life Sciences; Journalism Media Studies and Communication; Tourism and Hospitality Studies; Library, Archive and Museum Studies; Mining and Earth Sciences; and General were the last six (6) programme clusters in terms of number of enrolled students. Each one of these five clusters accounted for less than $1 \%$ of the total number of students who were enrolled in university institutions during the $2017 / 2018$ academic year. Enrolment of students in other programme clusters and their associated number of students are as shown in Figure 30. Table 38 provides simultaneously, a summary of enrolment of students per programme cluster and award level disaggregated by sex.

Table 37: Programme clusters in university institutions in Tanzania

| SN | Programme cluster |
| :---: | :--- |
| 1 | Agriculture |
| 2 | Architecture and Planning |
| 3 | Business |
| 4 | Education |
| 5 | Engineering |
| 6 | Environmental Science or Studies and Forestry |
| 7 | General |
| 8 | Humanities and Arts |
| 9 | Information and Communication Technology |
| 10 | Journalism Media Studies and Communication |
| 11 | Law |
| 12 | Library, Archive and Museum Studies |
| 13 | Life Sciences |
| 14 | Medicine, Veterinary and Health Sciences |
| 15 | Mining and Earth sciences |
| 16 | Physical Sciences and Mathematics |
| 17 | Social Sciences |
| 18 | Tourism and Hospitality Studies |



Figure 29: Students' enrolment by programme cluster 2017/18

### 8.7 Association between Number of Programmes and Students' Enrolment

Further analysis of the data revealed that there was a highly significant overall positive association between number of programmes and students' population in each programme cluster. That is, the large the number of programmes, the large (cumulatively) the number of students enrolled into the programmes. This is revealed in Figure 30 in which the number of enrolled students increases with increasing number of programmes per cluster. However, as observed earlier, the number of programmes in the Business cluster ( $\mathrm{n}=290$ programmes) was higher than that in the Education cluster ( $\mathrm{n}=218$ programmes), but the number of enrolled students was higher in the Education cluster ( $\mathrm{n}=66,888$ students) than it was in the Business cluster ( $\mathrm{n}=20,591$ students). Additionally, the Medicine, Veterinary and Health Sciences cluster had relatively more programmes ( $\mathrm{n}=244$ ) than the Education cluster, but it had considerably fewer enrolled students ( $\mathrm{n}=24,616$ ) than that of the Education cluster.


Figure 30: Number of programmes and enrolled students by programme cluster

Table 38: Students' enrolment by programme cluster and award level 2017/18

| SN | Programme cluster | Enrolment per cluster per award level |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Grand <br> total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Certificate |  |  | Diploma |  |  | Bachelor Degree |  |  | Postgraduate Diploma |  |  | Master Degree |  |  | Doctorate Degree |  |  |  |
|  |  | $\begin{aligned} & \frac{\mathbb{Q}}{\stackrel{0}{0}} \\ & \stackrel{=}{\mathbb{N}} \end{aligned}$ | $\frac{\mathbb{0}}{\frac{\pi}{2}}$ | $\begin{aligned} & \text { 픙 } \\ & \hline \end{aligned}$ |  | $\frac{\otimes}{\sqrt{0}}$ | $\begin{aligned} & \overline{\bar{\circ}} \\ & \stackrel{0}{\circ} \end{aligned}$ |  | $\frac{\otimes}{\sqrt{\pi}}$ | $\begin{aligned} & \stackrel{\bar{N}}{\circ} \\ & \stackrel{1}{0} \end{aligned}$ | $\begin{aligned} & \stackrel{\mathbb{D}}{\mathbb{N}} \\ & \stackrel{\sim}{W} \\ & \hline \end{aligned}$ | $\frac{0}{\frac{0}{2}}$ | 등 | $\begin{aligned} & \frac{0}{\omega} \\ & \stackrel{0}{\mathbb{N}} \\ & \text { L } \end{aligned}$ | $\frac{0}{\frac{0}{2}}$ | $\begin{aligned} & \overline{\boxed{\circ}} \\ & \stackrel{\circ}{\circ} \end{aligned}$ | $\begin{aligned} & \frac{0}{\mathbb{N}} \\ & \stackrel{N}{0} \\ & \hline \end{aligned}$ | $\frac{ \pm}{\text { ® }}$ | $\stackrel{\text { ¢0 }}{\circ}$ |  |
| 1 | Education | 139 | 102 | 241 | 1,466 | 1,523 | 2,989 | 22,276 | 39,564 | 61,840 | 85 | 195 | 280 | 554 | 858 | 1,412 | 44 | 82 | 126 | 66,888 |
| 2 | Medicine, Veterinary and Health Sciences | 748 | 851 | 1,599 | 2,975 | 3,886 | 6,861 | 5,284 | 9,466 | 14,750 | 1 | 1 | 2 | 579 | 799 | 1,378 | 12 | 14 | 26 | 24,616 |
| 3 | Business | 634 | 574 | 1,208 | 1,350 | 1,234 | 2,584 | 6,748 | 7,293 | 14,041 | 9 | 31 | 40 | 1,104 | 1,539 | 2,643 | 6 | 69 | 75 | 20,591 |
| 4 | Social Sciences | 327 | 277 | 604 | 832 | 525 | 1,357 | 6,243 | 7,132 | 13,375 |  |  |  | 328 | 487 | 815 | 26 | 81 | 107 | 16,258 |
| 5 | Law | 340 | 346 | 686 | 698 | 714 | 1,412 | 3,118 | 4,292 | 7,410 | 2 | 14 | 16 | 216 | 271 | 487 | 21 | 45 | 66 | 10,077 |
| 6 | Engineering |  |  |  | 28 | 246 | 274 | 1,700 | 7,367 | 9,067 | 2 | 18 | 20 | 51 | 189 | 240 | 8 | 61 | 69 | 9,670 |
| 7 | Information and Communication Technology | 117 | 298 | 415 | 532 | 843 | 1,375 | 1,310 | 2,858 | 4,168 |  | 8 | 8 | 33 | 87 | 120 | 2 | 20 | 22 | 6,108 |
| 8 | Agriculture | 21 | 33 | 54 | 76 | 84 | 160 | 1,460 | 3,039 | 4,499 |  |  |  | 41 | 79 | 120 | 6 | 12 | 18 | 4,851 |
| 9 | Humanities and Arts | 24 | 16 | 40 | 9 | 7 | 16 | 1,243 | 2,068 | 3,311 |  |  |  | 146 | 221 | 367 | 44 | 104 | 148 | 3,882 |
| 10 | Architecture and Planning | 4 | 6 | 10 | 29 | 28 | 57 | 1,146 | 1,807 | 2,953 | 2 | 11 | 13 | 191 | 297 | 488 | 12 | 49 | 61 | 3,582 |
| 11 | Environmental Science or Studies and Forestry |  |  |  | 29 | 55 | 84 | 781 | 1,212 | 1,993 | 1 | 3 | 4 | 84 | 168 | 252 | 8 | 29 | 37 | 2,370 |
| 12 | Physical Sciences and Mathematics |  |  |  | 10 | 14 | 24 | 518 | 1,502 | 2,020 |  |  |  | 53 | 141 | 194 | 14 | 28 | 42 | 2,280 |
| 13 | Life Sciences |  |  |  |  |  |  | 518 | 901 | 1,419 |  |  |  | 43 | 83 | 126 | 13 | 24 | 37 | 1,582 |
| 14 | Journalism Media Studies and Communication | 45 | 43 | 88 | 135 | 119 | 254 | 395 | 609 | 1,004 |  | 4 | 4 | 16 | 24 | 40 | 1 | 5 | 6 | 1,396 |
| 15 | Tourism and Hospitality Studies | 9 | 13 | 22 | 19 | 38 | 57 | 441 | 810 | 1,251 |  |  |  | 5 | 15 | 20 |  |  |  | 1,350 |
| 16 | Library, Archives and Museum Studies | 88 | 43 | 131 | 210 | 72 | 282 | 421 | 297 | 718 |  |  |  | 20 | 24 | 44 | 7 | 5 | 12 | 1,187 |
| 17 | Mining and Earth sciences |  |  |  | 18 | 59 | 77 | 186 | 765 | 951 |  |  |  | 5 | 11 | 16 | 3 | 1 | 4 | 1,048 |
| 18 | General | 1 | 3 | 4 | 9 | 9 | 18 |  |  |  | 4 | 5 | 9 |  |  |  | 44 | 152 | 196 | 227 |
|  | Grand total | 2,497 | 2,605 | 5,102 | 8,425 | 9,456 | 17,881 | 53,788 | 90,982 | 144,770 | 106 | 290 | 396 | 3,469 | 5,293 | 8,762 | 271 | 781 | 1,052 | 177,963 |

When the data were grouped according to programme cluster or field of education and sex, the results revealed that females were likely to enrol in the Library, Archives and Museum Studies cluster compared to their male counterpart. Further, the difference between females and males in the proportion of enrolment is less pronounced in the Business, Social Sciences, Law and Journalism Media Studies and Communication clusters, though the proportions of male students were more than that of females (Table 39).

Table 39: Students' enrolment by programme cluster and sex 2017/18

|  | Female | Percent |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Programme cluster | Male | Percent <br> Male | Total |  |  |
| Education | 24,564 | 36.7 | 42,324 | 63.3 | 66,888 |
| Medicine, Veterinary and Health Sciences | 9,599 | 39.0 | 15,017 | 61.0 | 24,616 |
| Business | 9,851 | 47.8 | 10,740 | 52.2 | 20,591 |
| Social Sciences | 7,756 | 47.7 | 8,502 | 52.3 | 16,258 |
| Law | 4,395 | 43.6 | 5,682 | 56.4 | 10,077 |
| Engineering | 1,789 | 18.5 | 7,881 | 81.5 | 9,670 |
| Information and Communication Technology | 1,994 | 32.6 | 4,114 | 67.4 | 6,108 |
| Agriculture | 1,604 | 33.1 | 3,247 | 66.9 | 4,851 |
| Humanities and Arts | 1,466 | 37.8 | 2,416 | 62.2 | 3,882 |
| Architecture and Planning | 1,384 | 38.6 | 2,198 | 61.4 | 3,582 |
| Environmental Science or Studies and Forestry | 903 | 38.1 | 1,467 | 61.9 | 2,370 |
| Physical Sciences and Mathematics | 595 | 26.1 | 1,685 | 73.9 | 2,280 |
| Life Sciences | 574 | 36.3 | 1,008 | 63.7 | 1,582 |
| Journalism Media Studies and Communication | 592 | 42.4 | 804 | 57.6 | 1,396 |
| Tourism and Hospitality Studies | 474 | 35.1 | 876 | 64.9 | 1,350 |
| Library, Archives and Museum Studies | 746 | 62.8 | 441 | 37.2 | 1,187 |
| Mining and Earth Sciences | 212 | 20.2 | 836 | 79.8 | 1,048 |
| General | 58 | 25.6 | 169 | 74.4 | 227 |
| Total | 68,556 | 38.5 | 109,407 | 61.5 | 177,963 |

### 8.8 Summary

This chapter provides enrolment statistics in degree and non-degree programmes in university institutions - Full-Fledged Universities, University Colleges, and University Campuses, Centres and Institutes. The findings revealed that, on average (SD), there was about $3,236(4,783)$ students per institution ranging from a minimum of 104 and a maximum of 26,004 students. In total, during the $2017 / 2018$ academic year, there were 177,963 students who were enrolled in various programme clusters or fields of education in different years of study in public and private university institutions. Of the total students who were enrolled, 109,407 ( $61.5 \%$ ) were males and the remaining 68,556 (38.5\%) were females.

Overall, most of the students ( $\mathrm{n}=144,770 ; 81.3 \%$ ) were enrolled in various Bachelor degree programmes followed by Diploma ( $\mathrm{n}=17,881$; 10.0\%) and

Master's degree ( $\mathrm{n}=8,762$; 4.6\%) while students enrolled into various PhD programmes accounted for only $0.6 \%(\mathrm{n}=1,052)$ of the total population of enrolled students in all university institutions during the 2017/2018 academic year.

During the period under reference, public university institutions had 108,012 ( $60.7 \%$ ) students as compared to private university institutions which accounted for the remaining proportion of the total enrolled students (i.e., $n=69,951 ; 39.3 \%$ ).

A comparison among the various types of university institutions showed that a significantly large proportion of the students ( $\mathrm{n}=143,270 ; 80.5 \%$ ) were enrolled in Full-Fledged Universities as compared to University Colleges ( $\mathrm{n}=26,194$; 14.7\%) and University Campuses, Centres and Institutes ( $\mathrm{n}=8,499$; 4.8\%).

Regarding enrolment per programme cluster or field of education, the findings have shown that more than one-third ( $n=66,888 ; 37.6 \%$ ) of the total students who were enrolled in various degree and non-degree programmes in university institutions were pursuing Education related programmes at different levels. Medicine, Veterinary and Health Sciences; Business; Social Sciences; Law; and Engineering accounted for 13.8\% ( $\mathrm{n}=24,616$ ); 11.6\% ( $\mathrm{n}=20,591$ ); 9.1\% ( $\mathrm{n}=16,258$ ); $5.7 \%$ ( $\mathrm{n}=10,077$ ); and $5.4 \%(\mathrm{n}=9,670)$, respectively of the total population of enrolled students. On the other hand, Life Sciences; Journalism Media Studies and Communication; Tourism and Hospitality Studies; Library, Archive and Museum Studies; Mining and Earth Sciences; and General were the last six (6) programme clusters in terms of number of enrolled students. Each one of these five clusters accounted for less than $1 \%$ of the total number of students who were enrolled in university institutions during the 2017/2018 academic year.

A strong positive association between number of programmes and enrolled students per cluster was found to exist. However, this association was not for all programme clusters or fields of education. For instance, the number of programmes in the Business cluster ( $\mathrm{n}=290$ programmes) was higher than that in the Education cluster ( $\mathrm{n}=218$ programmes), but the number of enrolled students was higher in the Education cluster ( $\mathrm{n}=66,888$ students) than it was in the Business cluster ( $\mathrm{n}=20,591$ students). Furthermore, the Medicine, Veterinary and Health Sciences cluster had relatively more programmes ( $\mathrm{n}=244$ ) than the Education cluster, but it (Medicine, Veterinary and Health Sciences cluster) had slightly fewer enrolled students ( $\mathrm{n}=24,616$ ) than that of the Education cluster.

The results in this chapter implies that although private university institutions are relatively many in number compared to public university institutions, their enrolment capacity is lower than that of public university institutions. That is, on average, the number of students per programme cluster in private university institutions is less than that in the public university institutions.

## CHAPTER 9

## Graduates in University Institutions

### 9.1 Introduction

Having seen the status of students' admission and enrolment in university institutions in Chapter Seven and Chapter Eight, respectively. This chapter presents information on state of graduation at all levels of the education hierarchy in university institutions (from Certificate to PhD ) in the various programme clusters in public and private university institutions (Full-Fledged Universities, University Colleges, and University Campuses, Centres and Institutes) over a fiveyear period (from 2013 to 2017). The analysis was based on data collected from 53 university institutions that had produced graduates in various programme clusters and at different award levels. As it was the case in the previous chapters, the analysis in this chapter also disaggregated the data by various variables including award level, type of institution, sex and programme cluster.

### 9.2 Number of Graduates in University Institutions

The analysis revealed that, cumulatively, 231,728 students have graduated in various programme clusters and university institutions between 2013 and 2017. Significant variations were observed between institutions in terms of number of graduates. The mean (SD) number of graduates per institution was $4,372(5,510)$ with a range of 26,561 (minimum 13 and maximum 26,574 ) graduates. The median number of graduates was 2,694 (Table 40). The results revealed further that 138,404 (59.7\%) of the total graduates were males and the remaining 93,324 ( $40.3 \%$ ) were females. There seems to be a strong association between the number of female and male graduates and enrolled students. In Chapter Eight we saw that of the total enrolled students in various programme clusters, $61.5 \%$ were males and the remaining $38.5 \%$ were females.

Table 40: Descriptive statistics of students' graduation 2013-2017

| Summary statistic | Estimated value |
| :--- | :---: |
| Mean | 4,372 |
| Standard deviation | 5,510 |
| Range | 26,561 |
| Minimum | 13 |
| Maximum | 26,574 |
| Sum | 231,728 |
| Percentile |  |
|  |  |
|  | 25 |
|  | 50 |
|  | 881 |
| Skewness | 2,694 |

### 9.3 Trends in Students' Graduation in University Institutions

During the period under reference, the number of graduates varied from year to year, showing an overall gradual decreasing trend over the five-year period (i.e., between 2013 and 2015). The number of graduates decreased from 46,892 in 2013 to 44,871 graduates in 2015. It increased abruptly in 2016 reaching 48,089 graduates, before it decreased again in 2017 to reach 46,294 graduates (Figure 31). Overall, the number of graduates exhibits a somewhat flat trend over the fiveyear period under reference. In particular, there was a $1.3 \%$ reduction in the number of graduates between 2013 and 2017 (Figure 31). On average, 46,346 students graduated each year over the past five years under reference in this chapter. Further, there appears to be a strong association between students' graduation and students' admission in university institutions. In Chapter six, we noted that on average, 49,185 students were admitted each year over the same period (2013/2014 to $2017 / 2018$ ). This finding is not expected since under normal state of affairs the number of graduates is anticipated to be less or equal to the number of students admitted into various academic programmes. This is the case because some students drop out of their studies or postpone studies for various reasons as discussed in Chapter Ten.


Figure 31: Trends in students' graduation in university institutions 2013-2017

### 9.4 Trends in Students' Graduation by Sex

As revealed in other aspects in the previous chapters, students' graduation in university institutions also varied between female and male students. Figure 32 provides a visual presentation of the trend in total students' graduation by sex in public and private university institutions over the five-year period under reference. Over the entire five-year period under reference, the number of female graduate students was consistently lower than that of male students. Moreover, the profiles of graduate students for both male and female students display an overall horizontal trend, though at different rates between males and females. For
example, for female students, in 2013, the number of graduates was 19,485 students, but dropped to 18,035 students in 2017 . This is equivalent to a $7.4 \%$ decrease in number of graduates. In contrast, the number of male graduating students increased from 27,407 in 2013 to 28,259 in 2017. This is equivalent to a $3.1 \%$ increase in the number of male graduates between 2013 and 2017 (Figure 32).


Figure 32: Trends in students'graduation by sex 2013-2017

### 9.5 Trends in Students' Graduation by Ownership of Institution

More than half ( $\mathrm{n}=131,817$; 55.5\%) of the total graduates between 2013 and 2017 were from public university institutions while the remaining 105,822 (44.5\%) graduated from private university institutions. Across the five-year period under reference, the profile of graduates displays an overall declining trend in public university institutions, but somewhat an increasing trend in private university institutions. The corresponding decrease and increase in number of graduates in public and private university institutions are from 27,643 in 2013 to 24,000 in 2017 (13.2 percentage point decrease in number of graduates) and from 20,443 in 2013 to 21,733 in 2017 (about 6.3 percentage point increase in number of graduates), respectively (Figure 33).


Figure 33: Trends in students' graduation by ownership of institution 20132017

### 9.6 Students' Graduation by Programme Cluster

Total graduates varied significantly between programme clusters. This variation largely reflects the number of students' enrolment in the various programme clusters as noted in Chapter seven. Figure 34 gives the distribution of students' graduation in various programme clusters in public and private university institutions for 2013-2017.

The first three leading programme clusters in having many graduates are Education, Business and Social Sciences. These three programme clusters accounted for $39.4 \%, 18.7 \%$ and $9.4 \%$ (cumulatively $67.5 \%$ ) of the total population of graduates for 2013-2017, respectively. Medicine, Veterinary and Health Sciences, Law, and Engineering were the next clusters that had produced a significant number of graduates within the period under reference. Proportionally, these last three clusters accounted for $7.0 \%, 6.0 \%$ and $3.9 \%$, of the total graduates, respectively.

On the other hand, Mining and Earth sciences, Life Sciences, Library, Archive and Museum Studies, Physical Sciences and Mathematics, Architecture and Planning, and Tourism and Hospitality Studies are the last six (6) clusters in ascending order of magnitude of number of graduates that each cluster has produced. That is, Mining and Earth Sciences was the last in having less graduates. Each one of these six clusters contributes less than 1\% of the total graduates over the period under reference (Figure 34).


Figure 34: Graduates by programme cluster 2013-2017

### 9.7 Students' Graduation by Programme Cluster and Sex

Table 41 provides summary statistics concerning number of graduates by sex (females against males). As evident from the table, with the exception of Journalism Media Studies and Communication, and Library, Archive and Museum Studies clusters in which the proportion of female graduates was larger than that of their counterpart male graduates, in all the remaining clusters, the proportion of male graduates was consistently larger than that of female graduates (Table 41). In particular, the proportion of female graduates in the fields of Engineering, Physical Sciences and Mathematics, Mining and Earth Sciences, Information and Communication Technology, Agriculture, Life Sciences and Architecture and Planning was comparatively lower than that of their counterpart male graduates. The data revealed further that the difference between male and female in the number of graduates was less noticeable in the Social Sciences, Business, General and Law clusters (Table 41).

The findings in this section are largely consistent to the earlier findings which indicated noticeable differences between male and female in terms of preference of programmes in which to enrol in. Chapter eight revealed for example, that females were more likely to enrol in the Journalism Media Studies and Communication cluster than males.

Table 41: Graduates by programme cluster and sex 2013-2017

| Programme cluster | Female $\begin{gathered}\text { Percent } \\ \text { Female }\end{gathered}$ |  | Percent |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Male | Male | Total |
| Education | 35,610 | 39.0 | 55,672 | 61.0 | 91,282 |
| Business | 20,010 | 46.2 | 23,297 | 53.8 | 43,307 |
| Social Sciences | 10,304 | 47.3 | 11,479 | 52.7 | 21,783 |
| Medicine, Veterinary and Health |  |  |  |  |  |
| Sciences | 6,442 | 39.9 | 9,720 | 60.1 | 16,162 |
| Law | 5,787 | 41.8 | 8,053 | 58.2 | 13,840 |
| Engineering | 1,346 | 14.9 | 7,688 | 85.1 | 9,034 |
| General | 2,983 | 43.3 | 3,905 | 56.7 | 6,888 |
| Information and Communication |  |  |  |  |  |
| Technology | 1,263 | 25.1 | 3,776 | 74.9 | 5,039 |
| Journalism Media Studies and |  |  |  |  |  |
| Communication | 2,639 | 54.9 | 2,165 | 45.1 | 4,804 |
| Environmental Science or Studies and |  |  |  |  |  |
| Forestry | 1,297 | 34.8 | 2,425 | 65.2 | 3,722 |
| Agriculture | 1,173 | 32.9 | 2,388 | 67.1 | 3,561 |
| Humanities and Arts | 1,023 | 39.0 | 1,597 | 61.0 | 2,620 |
| Tourism and Hospitality Studies | 792 | 38.8 | 1,251 | 61.2 | 2,043 |
| Architecture and Planning | 602 | 30.3 | 1,384 | 69.7 | 1,986 |
| Physical Sciences and Mathematics | 405 | 21.7 | 1,458 | 78.3 | 1,863 |
| Library, Archive and Museum Studies | 1,041 | 68.6 | 476 | 31.4 | 1,517 |
| Life Sciences | 363 | 28.2 | 925 | 71.8 | 1,288 |
| Mining and Earth Sciences | 244 | 24.7 | 745 | 75.3 | 989 |
| Total | 93,324 | 40.3 | 138,404 | 59.7 | 231,728 |

### 9.8 Students' Graduation by Programme Cluster and ownership of Institution

Table 42 presents statistics on number of graduates by programme cluster and ownership of institution (public against private). For the period under reference (2013-2017), no students have graduated from private university institutions in Agriculture, Life Sciences, and Mining and Earth Sciences programme clusters. In contrast, more than half of the graduates in the Education cluster graduated from private university institutions: $56.6 \%$ private vs. $43.4 \%$ public university institutions. Slightly above half of the graduates in Law graduated from private university institutions: $52.9 \%$ private vs. $47.1 \%$ public university institutions. The data show further that, for the period under reference, more than half of the graduates in Journalism Media Studies and Communication, Library, Archive and Museum Studies, and Medicine, Veterinary and Health Sciences clusters have graduated from private university institutions. In all the remaining programme clusters, public university institutions have produced significantly more graduates than private university institutions (Table 42).

Table 42: Students' graduation by programme cluster and ownership of institution 2013-2017

|  | Ownership of institution |  |  |  | $\begin{aligned} & \text { T® } \\ & 0 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { \# } \\ \stackrel{\pi}{D} \\ \hline \end{gathered}$ |  | $\frac{0}{3}$ |  |  |
| Agriculture | 0 | 0.0 | 3,561 | 100.0 | 3,561 |
| Architecture and Planning | 57 | 2.9 | 1,929 | 97.1 | 1,986 |
| Business | 18,892 | 43.6 | 24,415 | 56.4 | 43,307 |
| Education | 51,655 | 56.6 | 39,627 | 43.4 | 91,282 |
| Engineering | 2,963 | 32.8 | 6,071 | 67.2 | 9,034 |
| Environmental Science or Studies and Forestry | 106 | 2.8 | 3,616 | 97.2 | 3,722 |
| General | 26 | 0.4 | 6,862 | 99.6 | 6,888 |
| Humanities and Arts | 225 | 8.6 | 2,395 | 91.4 | 2,620 |
| Information and Communication Technology | 2,294 | 45.5 | 2,745 | 54.5 | 5,039 |
| Journalism Media Studies and Communication | 3,928 | 81.8 | 876 | 18.2 | 4,804 |
| Law | 7,328 | 52.9 | 6,512 | 47.1 | 13,840 |
| Library, Archive and Museum Studies | 860 | 56.7 | 657 | 43.3 | 1,517 |
| Life Sciences | 0 | 0.0 | 1,288 | 100.0 | 1,288 |
| Medicine, Veterinary and Health Sciences | 9,132 | 56.5 | 7,030 | 43.5 | 16,162 |
| Mining and Earth Sciences | 0 | 0.0 | 989 | 100.0 | 989 |
| Physical Sciences and Mathematics | 309 | 16.6 | 1,554 | 83.4 | 1,863 |
| Social Sciences | 7,384 | 33.9 | 14,399 | 66.1 | 21,783 |
| Tourism and Hospitality Studies | 663 | 32.5 | 1,380 | 67.5 | 2,043 |
| Total | 105,822 | 45.7 | 125,906 | 54.3 | 231,728 |

### 9.9 Students' Graduations by Award Level and Programme Cluster

In terms of students' graduation per award level, the data show that more than seventy percent ( $\mathrm{n}=164,608 ; 71.0 \%$ ) of those who graduated from 2013 to 2017 graduated at Bachelor's level. This rate is consistent with the finding that most students who are enrolled in university institutions are enrolled in various Bachelor degree programmes. Master's level represented the second highest proportion ( $\mathrm{n}=25,950 ; 11.2 \%$ ) of the graduates from university institutions over the five-year period under reference. Graduates at Diploma and Certificate levels, respectively represented $8.8 \%(n=20,479)$ and $7.7 \% ~(n=17,891)$ of the total graduates for 2013 to 2017. Less than $1 \%$ of the total graduates for the period under reference graduated at PhD ( $\mathrm{n}=760$; 0.3\%) and Postgraduate Diploma ( $\mathrm{n}=$ 2,040; 0.9\%) levels in various fields of study in university institutions (Tables 43 and 44).

Table 43: Students' graduation by award level 2013-2017

|  |  | 2013 |  |  | 2014 |  |  | 2015 |  |  | 2016 |  |  | 2017 |  |  | Grand total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SN | Award level | Female | Male | Total | Female | Male | Total | Female | Male | Total | Female | Male | Total | Female | Male | Total |  |
| 1 | Certificate | 2,243 | 2,197 | 4,440 | 1,618 | 1,711 | 3,329 | 1,402 | 1,740 | 3,142 | 1,863 | 2,402 | 4,265 | 1,366 | 1,349 | 2,715 | 17,891 |
| 2 | Diploma | 1,475 | 1,370 | 2,845 | 1,933 | 1,777 | 3,710 | 2,067 | 1,913 | 3,980 | 2,511 | 2,680 | 5,191 | 2,212 | 2,541 | 4,753 | 20,479 |
| 3 | Bachelor degree | 13,800 | 20,308 | 34,108 | 13,218 | 19,941 | 33,159 | 11,870 | 19,712 | 31,582 | 12,113 | 20,386 | 32,499 | 12,072 | 21,188 | 33,260 | 164,608 |
| 4 | Postgraduate Diploma | 149 | 273 | 422 | 152 | 249 | 401 | 230 | 264 | 494 | 214 | 244 | 458 | 134 | 131 | 265 | 2,040 |
| 5 | Master degree | 1,802 | 3,189 | 4,991 | 1,895 | 2,942 | 4,837 | 2,231 | 3,275 | 5,506 | 2,371 | 3,127 | 5,498 | 2,198 | 2,920 | 5,118 | 25,950 |
| 6 | Doctorate degree | 16 | 70 | 86 | 34 | 112 | 146 | 41 | 126 | 167 | 41 | 137 | 178 | 53 | 130 | 183 | 760 |
|  | Grand total | 19,485 | 27,407 | 46,892 | 18,850 | 26,732 | 45,582 | 17,841 | 27,030 | 44,871 | 19,113 | 28,976 | 48,089 | 18,035 | 28,259 | 46,294 | 231,728 |

Table 44: Students'graduation by programme cluster and sex 2013-2017

| SN | Programme Cluster | 2013 |  |  | 2014 |  |  | 2015 |  |  | 2016 |  |  | 2017 |  |  | Grand total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $$ | $\frac{0}{\frac{0}{\Sigma}}$ | $\begin{aligned} & \text { 등 } \\ & \vdash \end{aligned}$ |  | $\frac{0}{\frac{0}{N}}$ | $\begin{aligned} & \text { 픙 } \\ & \stackrel{0}{0} \end{aligned}$ | $\stackrel{0}{0}$ <br> $\stackrel{1}{0}$ <br> $\stackrel{0}{0}$ | $\frac{\mathbb{0}}{\frac{0}{\Sigma}}$ | $\begin{aligned} & \text { 픙 } \\ & \stackrel{1}{2} \end{aligned}$ |  | $\frac{\Phi}{\frac{\infty}{N}}$ | $\begin{aligned} & \text { 등 } \\ & \stackrel{0}{2} \end{aligned}$ |  | $\frac{\otimes}{\frac{0}{N}}$ | $\stackrel{\text { ¢ }}{\stackrel{\text { ® }}{\circ}}$ |  |
| 1 | Education | 6,920 | 9,766 | 16,686 | 7,376 | 9,925 | 17,301 | 7,242 | 11,555 | 18,797 | 7,303 | 12,148 | 19,451 | 6,769 | 12,278 | 19,047 | 91,282 |
| 2 | Business | 3,764 | 4,964 | 8,728 | 4,273 | 5,119 | 9,392 | 3,719 | 4,511 | 8,230 | 4,246 | 4,505 | 8,751 | 4,008 | 4,198 | 8,206 | 43,307 |
| 3 | Social Sciences | 2,851 | 3,201 | 6,052 | 2,193 | 2,546 | 4,739 | 1,764 | 1,935 | 3,699 | 1,704 | 1,833 | 3,537 | 1,792 | 1,964 | 3,756 | 21,783 |
| 4 | Medicine, Veterinary and Health Sciences | 916 | 1,287 | 2,203 | 905 | 1,510 | 2,415 | 1,302 | 1,961 | 3,263 | 1,613 | 2,441 | 4,054 | 1,706 | 2,521 | 4,227 | 16,162 |
| 5 | Law | 1,047 | 1,551 | 2,598 | 1,198 | 1,764 | 2,962 | 1,225 | 1,693 | 2,918 | 1,122 | 1,512 | 2,634 | 1,195 | 1,533 | 2,728 | 13,840 |
| 6 | Engineering | 155 | 1,125 | 1,280 | 234 | 1,399 | 1,633 | 206 | 1,416 | 1,622 | 304 | 1,610 | 1,914 | 447 | 2,138 | 2,585 | 9,034 |
| 7 | General | 1,335 | 1,419 | 2,754 | 414 | 584 | 998 | 486 | 674 | 1,160 | 735 | 1,208 | 1,943 | 13 | 20 | 33 | 6,888 |
| 8 | Information and Communication Technology | 192 | 700 | 892 | 248 | 809 | 1,057 | 171 | 493 | 664 | 381 | 992 | 1,373 | 271 | 782 | 1,053 | 5,039 |
| 9 | Journalism Media Studies and Communication | 799 | 639 | 1,438 | 730 | 616 | 1,346 | 467 | 391 | 858 | 339 | 278 | 617 | 304 | 241 | 545 | 4,804 |
| 10 | Environmental Science or Studies and Forestry | 235 | 543 | 778 | 250 | 449 | 699 | 221 | 428 | 649 | 321 | 521 | 842 | 270 | 484 | 754 | 3,722 |
| 11 | Agriculture | 223 | 494 | 717 | 203 | 334 | 537 | 189 | 501 | 690 | 197 | 456 | 653 | 361 | 603 | 964 | 3,561 |
| 12 | Humanities and Arts | 400 | 558 | 958 | 172 | 364 | 536 | 164 | 309 | 473 | 122 | 189 | 311 | 165 | 177 | 342 | 2,620 |
| 13 | Tourism and Hospitality studies | 271 | 388 | 659 | 134 | 322 | 456 | 113 | 183 | 296 | 149 | 192 | 341 | 125 | 166 | 291 | 2,043 |
| 14 | Architecture and Planning | 87 | 277 | 364 | 112 | 299 | 411 | 115 | 254 | 369 | 131 | 310 | 441 | 157 | 244 | 401 | 1,986 |
| 15 | Physical Sciences and Mathematics | 37 | 135 | 172 | 88 | 310 | 398 | 79 | 350 | 429 | 72 | 276 | 348 | 129 | 387 | 516 | 1,863 |
| 16 | Library, Archive and Museum Studies | 151 | 46 | 197 | 213 | 87 | 300 | 225 | 86 | 311 | 269 | 147 | 416 | 183 | 110 | 293 | 1,517 |
| 17 | Life Sciences | 62 | 202 | 264 | 72 | 183 | 255 | 104 | 184 | 288 | 66 | 173 | 239 | 59 | 183 | 242 | 1,288 |
| 18 | Mining and Earth sciences | 40 | 112 | 152 | 35 | 112 | 147 | 49 | 106 | 155 | 39 | 185 | 224 | 81 | 230 | 311 | 989 |
|  | Grand total | 19,485 | 27,407 | 46,892 | 18,850 | 26,732 | 45,582 | 17,841 | 27,030 | 44,871 | 19,113 | 28,976 | 48,089 | 18,035 | 28,259 | 46,294 | 231,728 |

### 9.10 Summary

The analysis in this chapter has revealed that 231,728 students graduated in various university institutions in several programme clusters from 2013 to 2017. The mean (SD) number of graduates was about $4,372(5,510)$ with a range of 26,561 (minimum 13 and maximum 26,574 ) graduates. The results revealed further that 138,404 (59.7\%) of the total graduates were males and the remaining 93,324 (40.3\%) were females.

The number of graduates varied from year to year - first decreased from 46,892 in 2013 to 44,871 graduates in 2015. Then, it increased abruptly in 2016 reaching 48,089 graduates, before it decreased again in 2017 to reach 46,294 graduates. Generally, over the five-year period under reference, number of graduates demonstrates a fairly horizontal trend. Specifically, there was a $1.3 \%$ reduction in the number of graduates between 2013 and 2017. Further, the fiveyear period, on average, a total of 46,346 students graduated per year.

Across the five-year period under reference, the profile of female graduates was consistently lower than that of male students. Further, the profiles of graduate students for both male and female students appear to be more or less the same as that of the overall profile. That is, they display a horizontal trend, though at different rates between males and females. In 2013 for example, the number of female graduates was 19,485, but decreased to 18,035 graduates in 2017 (equivalent to $7.4 \%$ reduction in the number of graduates). During the same period, the number of male graduates increased from 27,407 graduates in 2013 to 28,259 graduates in 2017 (equivalent to $3.1 \%$ increase in the number of male graduates between 2013 and 2017).

Significant variations were observed in terms of number of graduates across programme clusters. The three leading programme clusters or fields of education in terms of number of graduates were Education, Business and Social Sciences. These three programme clusters accounted for $39.4 \%, 18.7 \%$ and $9.4 \%$, which overall, represented $67.5 \%$ of the total graduates for 2013-2017, respectively. The next clusters were Medicine, Veterinary and Health Sciences, Law, and Engineering, which accounted for $7.4 \%, 5.7 \%$ and $4.2 \%$, respectively of the total graduates. Further, the clusters that had the least number (in ascending order of magnitude) of graduates are Mining and Earth sciences, Life Sciences, Library, Archive and Museum Studies, Physical Sciences and Mathematics, Architecture and Planning, and Tourism and Hospitality Studies. Each one of these six clusters contributes less than $1 \%$ of the total graduates over the period under reference.

With regards to graduates per programme cluster by sex, the results revealed that with the exception of Journalism Media Studies and Communication, and Library, Archive and Museum Studies clusters in which the proportion of female graduates was larger than that of their counterpart male graduates, in all the remaining clusters, the proportion of male graduates was consistently larger than that of female graduates. Expressly, the proportion of female graduates in the fields of Engineering, Physical Sciences and Mathematics, Mining and Earth Sciences, Information and Communication Technology, Agriculture, Life Sciences and Architecture and Planning was reasonably lower than that of their counterpart male graduates. Further, the analysis revealed that the difference
between male and female graduates was less significant in the Social Sciences, Business, General and Law clusters.

Concerning graduates per programme cluster and institution ownership, the data revealed that for the period under reference, no students have graduated from private university institutions in some programme clusters. These are Agriculture, Life Sciences, and Mining and Earth Sciences. In contrast, more than half of the graduates in the Education cluster graduated from private university institutions: $56.6 \%$ private vs. $43.4 \%$ public university institutions. Slightly above half of the graduates in Law graduated from private university institutions: 52.9\% private vs. $47.1 \%$ public university institutions. Further, for the period under reference, more than half of the graduates in Journalism Media Studies and Communication, Library, Archive and Museum Studies, and Medicine, Veterinary and Health Sciences clusters have graduated from private university institutions. In all the remaining programme clusters, public university institutions have produced significantly more graduates than private university institutions.

In terms of graduates per award level, the data showed that more than seventy percent ( $\mathrm{n}=164,608 ; 71.0 \%$ ) of those who have graduated from 2013 to 2017 have graduated at Bachelor's level. Graduates at Master's level represented the second highest proportion ( $\mathrm{n}=25,950 ; 11.2 \%$ ) of the graduates from university institutions over the five-year period under reference. Graduates at the level of Diploma and Certificate, respectively each represented $8.8 \%$ and $7.7 \%$ of the total graduates for 2013 to 2017. Less than $1 \%$ of the total graduates for the period under reference graduated at PhD and Postgraduate Diploma levels in various fields of study in university institutions.

## CHAPTER 10

## Students' Dropout in University Institutions

### 10.1 Introduction

In Chapter Nine, the focus was on the number of graduates in public and private university institutions over a five-year period. However, it is uncommon to have all students who were admitted into a particular degree or non-degree programme graduating after the life cycle of the programme. That is, zero dropout rates in university institutions are rarely observed.

The drop out category of students in an education environment are those who terminate studies due to several reasons including discontinuation due to reasons such as examination irregularities and disciplinary actions. In this regard therefore, the analysis in this chapter aimed at uncovering among other things, the most pronounced reason(s) for dropping out of studies and the programme cluster(s) or fields of education in which there was a significantly high proportion of dropouts among students in public and private university institutions. However, the analysis disaggregated the data on dropouts by such other variables as sex, award level and institution type and considered students who dropped out of studies in university institutions between 2012/2013 and 2017/2018.

### 10.2 Number of Dropouts in University Institutions

A total of 8,572 students terminated their studies between 2013 and 2017 in university institutions. The results revealed further that 6,149 (71.7\%) of the total students who dropped out of studies were males and the remaining 2,423 (28.3\%) were females. These rates fundamentally reflect differences in number of students' admission and enrolment between males and females as observed in the previous chapters.

### 10.3 Dropouts by Award Level and Sex

The highest dropout rate was among students who were pursuing Bachelor's degree. This accounted for $81.6 \%$ of the total students who dropped out of studies for the period under reference. Students at Masters and PhD degree levels accounted for $10.6 \%$ and $0.3 \%$, respectively (Table 45). However, the high dropout rate at Bachelor degree level largely mirrors the larger number of students who are admitted at this level as revealed earlier.

Table 45: Dropout rates by programme cluster and sex between 2012/2013 and 2017/2018

|  | Award level |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  | Bachelor | Postgraduate | Master | Doctorate |
| Sex | Certificate | Diploma | Degree | Diploma | Degree | Degree | Total |
| Female | 78 | 139 | 1,876 | 9 | 314 | 7 | 2,423 |
| Male | 108 | 246 | 5,121 | 61 | 598 | 15 | 6,149 |
| Total | 186 | 385 | 6,997 | 70 | 912 | 22 | 8,572 |
| Percent | 2.2 | 4.5 | 81.6 | 0.8 | 10.6 | 0.3 | 100.0 |

### 10.4 Dropouts by Type of Institution and Award Level

Table 46 provides a summary of number of students who dropped out of studies by type of institution (i.e., Full-Fledged Universities, University Colleges, and University Campuses, Centres and Institutes) and award level or level of education. As seen from the table, dropout rates varied within and between types of institution and award levels, with students pursuing Bachelor degree in FullFledged Universities ( $\mathrm{n}=5,694$; 81.4\%) being more likely to drop out of studies than in other levels of studies and types of institutions. On the other hand, students who were studying Master's programmes in University Campuses, Centres and Institutes ( $\mathrm{n}=445$; 48.8\%) were more likely to drop out of studies than in other types of institutions. Likewise, as pointed out earlier, the high rate of dropout of students in Full-Fledged Universities also mostly mirrors the number of students admitted into various institutions whereby, total admission of students in Full-Fledged Universities is normally high compared to other types of institutions.

### 10.5 Dropouts by Programme Cluster and Institution Ownership

Figure 35 gives number of students who dropped out of studies per programme cluster. As the figure shows, dropout rates also reflect the number of students in each programme cluster. For example, the Education and Business clusters were found to have the highest number of students who dropped out of studies. This is simply because these fields usually have the highest total number of students who are admitted into these clusters and thus, cumulatively, more number of students drop out of studies in these fields. On the other hand, the Library, Archive and Museum Studies cluster had the lowest number of students who dropped out of studies.

Of the total 8,572 students who dropped out of studies, 5,932 (69.2\%) were from public university institutions while the remaining 2,640 (30.8\%) were from private university institutions. A comparison of dropout rates in the Business and Education clusters that had the highest number of students who dropped out of studies between public and private university institutions revealed that students were more likely to drop out of studies in the Business cluster in public university institutions ( $\mathrm{n}=846$; 14.3\%) than in private university institutions ( $\mathrm{n}=309$; $11.7 \%)$. In contrast, students were more likely to drop out of studies in the Education cluster in private university institutions ( $n=1,250 ; 47.3 \%$ ) than in public university institutions ( $\mathrm{n}=2,013 ; 33.9 \%$ ) as summarized in Table 47.


Figure 35: Number of dropouts by programme cluster between 2012/2013 and 2017/2018

Table 46: Dropout rates by institution type and award level between 2012/2013 and 2017/2018

| SN | Award level | Institution type and sex |  |  |  |  |  |  |  |  | Grand total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Full-Fledged Universities |  |  | University Colleges |  |  | University Campuses, Centres and Institutes |  |  |  |
|  |  | Female | Male | Total | Female | Male | Total | Female | Male | Total |  |
| 1 | Certificate | 52 | 62 | 114 | 11 | 33 | 44 | 15 | 13 | 28 | 186 |
| 2 | Diploma | 116 | 185 | 301 | 9 | 38 | 47 | 14 | 23 | 37 | 385 |
| 3 | Bachelor Degree | 1,603 | 4,091 | 5,694 | 246 | 947 | 1,193 | 27 | 83 | 110 | 6,997 |
| 4 | Postgraduate Diploma | 9 | 61 | 70 | 0 | 0 | 0 | 0 | 0 | 0 | 70 |
| 5 | Master Degree | 88 | 268 | 356 | 39 | 72 | 111 | 187 | 258 | 445 | 912 |
| 6 | Doctorate Degree | 6 | 15 | 21 | 1 | 0 | 1 | 0 | 0 | 0 | 22 |
|  | Grand total | 1,874 | 4,682 | 6,556 | 306 | 1,090 | 1,396 | 243 | 377 | 620 | 8,572 |

Table 47: Dropout rates by programme cluster and institution ownership between 2012/2013 and 2017/2018

| SN | Programme Cluster | Public University institutions |  |  |  | Private University institutions |  |  |  | $\begin{gathered} \text { Grand } \\ \text { total } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Female | Male | Total | Percent | Female | Male | Total | Percent |  |
| 1 | Agriculture | 34 | 62 | 96 | 1.6 |  |  |  |  | 96 |
| 2 | Architecture and Planning | 37 | 114 | 151 | 2.5 |  |  |  |  | 151 |
| 3 | Business | 292 | 554 | 846 | 14.3 | 112 | 197 | 309 | 11.7 | 1,155 |
| 4 | Education | 583 | 1,430 | 2,013 | 33.9 | 361 | 889 | 1,250 | 47.3 | 3,263 |
| 5 | Engineering | 38 | 396 | 434 | 7.3 | 14 | 112 | 126 | 4.8 | 560 |
| 6 | Environmental Science or Studies and Forestry | 20 | 52 | 72 | 1.2 | 1 | 4 | 5 | 0.2 | 77 |
| 7 | General | 21 | 52 | 73 | 1.2 | 1 | 7 | 8 | 0.3 | 81 |
| 8 | Humanities and Arts | 76 | 128 | 204 | 3.4 | 6 | 14 | 20 | 0.8 | 224 |
| 9 | Information and Communication Technology | 91 | 399 | 490 | 8.3 | 13 | 42 | 55 | 2.1 | 545 |
| 10 | Journalism Media Studies and Communication |  | 1 | 1 | 0.0 | 22 | 27 | 49 | 1.9 | 50 |
| 11 | Law | 55 | 162 | 217 | 3.7 | 127 | 162 | 289 | 10.9 | 506 |
| 12 | Library, Archive and Museum Studies | 3 | 2 | 5 | 0.1 | 2 | 1 | 3 | 0.1 | 8 |
| 13 | Life Sciences | 6 | 34 | 40 | 0.7 |  |  |  |  | 40 |
| 14 | Medicine, Veterinary and Health Sciences | 122 | 274 | 396 | 6.7 | 107 | 317 | 424 | 16.1 | 820 |
| 15 | Mining and Earth Sciences | 11 | 81 | 92 | 1.6 |  |  |  |  | 92 |
| 16 | Physical Sciences and Mathematics | 20 | 136 | 156 | 2.6 |  |  |  |  | 156 |
| 17 | Social Sciences | 204 | 397 | 601 | 10.1 | 30 | 67 | 97 | 3.7 | 698 |
| 18 | Tourism and Hospitality studies | 14 | 31 | 45 | 0.8 |  | 5 | 5 | 0.2 | 50 |
|  | Grand total | 1,627 | 4,305 | 5,932 | 100.0 | 796 | 1,844 | 2,640 | 100.0 | 8,572 |

### 10.6 Reason for Termination of Studies

Regarding reasons for termination of studies in university institutions, the analysis revealed several reasons (Table 48). These were discontinuation based on various reasons: academic grounds (that is, failing to meet pre-determined academic standards), abscondment, examination irregularities, and disciplinary action; deregistration, and death. However, the most pronounced reasons across university institutions were discontinuation based on academic standards, which accounted for most of the total students (66.1\%) who dropped out of studies, followed by deregistration (17.1\%) and discontinuation on abscondment grounds (10.8\%).

Table 48: Reason for termination of studies between 2012/2013 and 2017/2018

| Reason for termination of studies | Number of students | Percent |
| :--- | :---: | ---: |
| Discontinued on academic grounds | 5,663 | 66.1 |
| Deregistration | 1,462 | 17.1 |
| Discontinuation on abscondment grounds | 925 | 10.8 |
| Death | 409 | 4.8 |
| Discontinuation on examination irregularities | 107 | 1.2 |
| Discontinuation on disciplinary grounds | 6 | 0.1 |
| Total | 8,572 | 100.0 |

### 10.7 Summary

In this chapter we have seen that in total, 8,572 students terminated their studies between 2013 and 2017 in university institutions. The results revealed further that $6,149(71.7 \%)$ of the total students who dropped out of studies were males and the remaining 2,423 ( $28.3 \%$ ) were females.

The results revealed that the highest dropout rate was among students who were pursuing Bachelor degree. This accounted for $81.6 \%$ of the total students who dropped out of studies for the period under reference. Students at Masters and PhD degree levels accounted for $10.6 \%$ and $0.3 \%$, respectively of the total students who dropped out of studies.

Students who were pursuing Bachelor degree in Full-Fledged Universities ( $\mathrm{n}=5,694$; 81.4\%) were more likely to drop out of studies than in other levels of studies and types of institutions. Further, students who were studying Master's programmes in University Campuses, Centres and Institutes ( $\mathrm{n}=445$; 48.8\%) were more likely to drop out of studies than in other types of institutions.

Dropout rate was observed to be proportional to the number of students admitted or enrolled into the various programme clusters. For example, the Education and Business clusters were found to have the highest number of students who dropped out of studies. This observation is largely because these fields usually have the highest students' admission or enrolment rates and hence, generally, more number of dropout from studies in these fields. Students were less likely to drop out of studies in the Library, Archive and Museum Studies cluster.

The findings in this chapter have also shown that of the total 8,572 students who dropped out of studies, 5,932 (69.2\%) were from public university institutions while the remaining 2,640 (30.8\%) were from private university institutions. A comparison of dropout rates in the Business and Education clusters that had the highest number of students who dropped out of studies between public and private university institutions revealed that students were more likely to drop out of studies in the Business cluster in public university institutions ( $\mathrm{n}=846$; 14.3\%) than in private university institutions ( $\mathrm{n}=309$; 11.7\%). In contrast, students were more likely to drop out of studies in the Education cluster in private university institutions ( $\mathrm{n}=1,250 ; 47.3 \%$ ) than in public university institutions ( $\mathrm{n}=2,013$; 33.9\%).

On the reasons for dropping out of studies in university institutions, the analysis revealed that students do drop out of studies due to several reasons. These are discontinuation on academic grounds, examination irregularities, and disciplinary grounds; and deregistration; and death. Based on the data, the most prominent reason for termination of studies was discontinuation based on academic standards, which accounted for most of the students (66.1\%) who terminated studies, followed by deregistration (17.1\%) and discontinuation for absconding studies.

## CHAPTER 11

# Undergraduate Students' Admission in Higher Learning Institutions in Tanzania 

### 11.1 Introduction

Chapters Two through Ten presented statistics on various aspects focusing on University institutions (i.e., Full-Fledged Universities, University Colleges, and University Campuses, Centres and Institutes) only. Indeed, as explained in the introductory chapter, the focus of this book is on university education in the country. However, given the fact mentioned in the introductory chapter that TCU also coordinates admission of students into various degree programmes in nonuniversity institutions in the country, which offer Bachelor degree programmes, in order to provide a complete picture of the state of university education in the country, this chapter provides summary statistics combining both university and non-university institutions in some aspects. In particular, the chapter provides statistics on admission considering all higher learning institutions (university and non-university) that were offering degree programmes in the country during the 2012/2013 and the 2017/2018 admission cycles.

The analysis provides first, overall (total) trends of undergraduate students' admissions in the country, which is, combining both university and non-university institutions that were offering degree programmes for the period under reference and second providing the same statistics but focusing on non-university institutions only. The second analysis is meant to provide a picture of trends of undergraduate students' admission in non-university institutions offering degree programmes in the country, however, covering the same period as for university institutions.

### 11.2 Total Students' Admission in Higher Learning Institutions

The demand for higher education has been increasing over time in the country. Between the 2012/2013 and the 2016/2017 admission cycles, total number of students who were admitted in various higher learning institutions in the country increased from 44,715 admitted during the 2012/2013 admission cycle to 63,737 students who were admitted during the 2016/2017 admission cycle (Figure 36). This is equal to an increase of 24,824 students or $55.5 \%$ increase over a five-year period - equivalent to an annual increase of 4,965 students. However, as Figure 37 shows, between the $2016 / 2017$ and the $2017 / 2018$ admission cycles, total undergraduate students' admission decreased from 69,539 students who were admitted during the $2016 / 2017$ admission cycle to 63,737 students admitted during the $2017 / 2018$ admission cycle. This is equivalent to a decrease of 5,802 students or 8.3\% decrease. As elucidated previously, the decline between the two admission cycles ( $2016 / 2017$ and $2017 / 2018$ ) was largely attributed to the admission ban in some institutions because of quality assurance issues.


Figure 36: Total students' admission in higher learning institutions by sex 2012/13-2017/18

### 11.3 Students' Admission in Higher Learning Institutions by Type of Institutions and Sex

The demand for higher education by both males and females has been increasing over time. Between the 2012/2013 and the 2016/2017 admission cycles, total number of male students who were admitted in various higher learning institutions increased from 29,327 students admitted during the 2012/2013 admission cycle to 42,180 students who were admitted during the 2016/2017 admission cycle (Figure 37). This is equal to an increase of 12,853 students or $43.8 \%$ increase over a five-year period - equivalent to an annual increase of 2,571 students. On the other hand, for the same period (i.e., between 2012/2013 and $2016 / 2017$ admission cycles), total number of female students who were admitted in various higher learning institutions increased from 15,388 students admitted during the $2012 / 2013$ admission cycle to 27,359 students who were admitted during the 2016/2017 admission cycle (Figure 37). This is equal to an increase of 11,971 students or $77.8 \%$ increase over a five-year period - equivalent to an annual increase of 2,394 students. Overall, as Figure 37 shows, the profile of total admitted male student is consistently above that of female students, implying that more male students were admitted during the period under reference than their counterpart female students. Table 49 provides statistics on total admitted students into higher learning institutions by type of institutions and sex for the 2012/2103-2017/2018 admission cycles. Overall, the proportion of students admitted in public institutions has increased from 55.5\% during the 2012/2013 to $78.9 \%$ during the 2018/2019 admission cycles. On the other hand, the proportion of students admitted in private institutions decreased from $44.5 \%$ during the $2012 / 2013$ to $21.1 \%$ during the 2018/2019 admission cycles.


Figure 37: Students' admission in higher learning institutions by sex 2012/132017/18

Table 49: Total admitted students into higher learning institutions by type of institutions and sex 2012/2103-2017/2018

|  | Admission Cycle |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012-2013 |  |  | 2013-2014 |  |  | 2014-2015 |  |  | 2015-2016 |  |  | 2016-2017 |  |  | 2017-2018 |  |  |
| Type of Institution |  | $\frac{0}{\sum_{0}^{\pi}}$ | $\begin{aligned} & \text { 등 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \frac{0}{\mathbb{0}} \\ & \stackrel{\rightharpoonup}{\mathbb{W}} \end{aligned}$ | $\frac{0}{\sqrt[N]{N}}$ | $\begin{aligned} & \text { 픙 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \frac{0}{\mathbb{0}} \\ & \stackrel{\rightharpoonup}{\mathbb{W}} \end{aligned}$ | $\frac{0}{\sum_{0}^{\pi}}$ | $\begin{aligned} & \overline{\text { 응 }} \end{aligned}$ | $\begin{aligned} & \frac{0}{\mathbb{0}} \\ & \stackrel{\rightharpoonup}{\mathbb{W}} \end{aligned}$ | $\frac{0}{\sum_{\Sigma}^{0}}$ | $\begin{aligned} & \text { 등 } \\ & \end{aligned}$ | $\begin{aligned} & \frac{0}{\mathbb{N}} \\ & \stackrel{ভ}{\mathbb{N}} \end{aligned}$ | $\frac{0}{\sum_{0}^{01}}$ | $\begin{aligned} & \bar{\Pi} \\ & \stackrel{\text { ® }}{0} \end{aligned}$ | $\begin{aligned} & \frac{0}{0} \\ & \stackrel{0}{0} \\ & \stackrel{\rightharpoonup}{4} \end{aligned}$ | $\frac{0}{\sum_{0}^{0}}$ | $\stackrel{\overline{\text { 픙 }}}{ }$ |
| Public Institutions | 7,840 | 16,985 | 24,825 | 10,196 | 18,263 | 28,459 | 13,575 | 24,417 | 37,992 | 14,445 | 27,339 | 41,784 | 17,331 | 27,319 | 44,650 | 19,491 | 30,801 | 50,292 |
| Private Institutions | 7,548 | 12,342 | 19,890 | 8,662 | 15,416 | 24,078 | 7,494 | 14,401 | 21,895 | 7,780 | 15,500 | 23,280 | 10,028 | 14,861 | 24,889 | 5,467 | 7,978 | 13,445 |
| Total admission | 15,388 | 29,327 | 44,715 | 18,858 | 33,679 | 52,537 | 21,069 | 38,818 | 59,887 | 22,225 | 42,839 | 65,064 | 27,359 | 42,180 | 69,539 | 24,959 | 38,779 | 63,737 |
| \%Public Institutions | 50.9 | 57.9 | 55.5 | 54.1 | 54.2 | 54.2 | 64.4 | 62.9 | 63.4 | 65.0 | 63.8 | 64.2 | 63.3 | 64.8 | 64.2 | 78.1 | 79.4 | 78.9 |
| \% Private Institutions | 49.1 | 42.1 | 44.5 | 45.9 | 45.8 | 45.8 | 35.6 | 37.1 | 36.6 | 35.0 | 36.2 | 35.8 | 36.7 | 35.2 | 35.8 | 21.9 | 20.6 | 21.1 |

### 11.4 Total Students' Admission in Non-University Institutions

For the period under reference, the number of students admitted into various degree programmes in non-university institutions has been generally increasing over time except during the 2017/2018 admission cycle in which students' admission decreased suddenly as it was the case in university institutions. Between the 2012/2013 and the 2016/2017 admission cycles, students' admission increased by about three times (i.e., increased from 6,105 students who were admitted during the 2012/2013 academic year to 17,072 students admitted during the 2016/2017 academic year). However, the number of students admitted decreased between 2016/2017 and 2017/2018 admission cycles - decreased by $18.5 \%$ (decreased from 17,072 students admitted during the 2016/2017 academic year to 13,919 students admitted during the 2017/2018 academic year.

Looking at gender differences in admission in non-university institutions, the data revealed a similar pattern as that observed in university institutions. That is, the profile of male students admitted into various programme clusters is consistently above that of female students and the two profiles are fairly parallel (and increasing), suggesting a constant rate of increase in total students' admission for both males and females over the entire period under reference (Figure 38). The ratio of female to male (in percent) in total admission is presented in Figure 39.


Figure 38: Total students' admission in non-university institutions 2012/132017/18


Figure 39: Female to male ratio of total students' admission in non-university institutions 2012/13-2017/18

### 11.5 Students' Admission by Ownership in Non-University Institutions

### 11.5.1 Students' Admission in Public Non-University Institutions

Admission of students in public non-university institutions displays an overall increasing trend (Figure 40). Between the 2012/2013 and the 2017/2018 academic years, the number of students admitted into various degree programmes in public non-university institutions increased by about two times (increased from 18,811 students admitted during the 2012/2013 academic year to 36,474 students admitted during the 2017/2018 academic year). Table 50 gives a list of individual public non-university institutions indicating the number of students who were admitted into various degree programmes in these institutions during the period under reference.

In order to understand the magnitude of gender disparity in students' admission in public non-university institutions, the data were further broken down by sex of students. According to the results (Figure 40), the profile of number of female students admitted into various academic programmes was constantly lower than that of male students. A profile of female to male ratio (percent) is given in Figure 41 from which it is clear that female to male ratio of admission in public non-university institutions generally displays an increasing trend, though when individual academic years are considered, there seems to be a random pattern.


Figure 40: Trends in students' admission in public non-university institutions 2012/13-2017/18


Figure 41: Female to male ratio of admission in public non-university institutions 2012/13-2017/18

Table 50: Students admitted into public non-universities by sex 2012/13-2017/18 admission cycles

| SN | Name of University institution | Admission Cycle |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2012/2013 |  |  | 2013/2014 |  |  | 2014/2015 |  |  | 2015/2016 |  |  | 2016/2017 |  |  | 2017/2018 |  |  |
|  |  | $\begin{aligned} & \frac{0}{\mathbb{N}} \\ & \stackrel{\rightharpoonup}{\mathbb{W}} \end{aligned}$ | $\frac{ \pm}{\text { N }}$ | 든 | $\begin{aligned} & \stackrel{0}{\mathbb{W}} \\ & \stackrel{\rightharpoonup}{\mathbb{W}} \end{aligned}$ | $\stackrel{ \pm}{\text { ¢ }}$ | ¢ | $\begin{aligned} & \frac{0}{0} \\ & \stackrel{0}{0} \\ & \text { © } \end{aligned}$ | $\stackrel{ \pm}{\text { N }}$ | $\begin{aligned} & \overline{\text { IIO}} \\ & \hline \end{aligned}$ |  | $\stackrel{\text { ¢ }}{\text { N }}$ | 등 |  | $\stackrel{\text { ¢ }}{\text { N }}$ | $\begin{aligned} & \text { 픈 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \stackrel{\text { D }}{\stackrel{10}{0}} \\ & \stackrel{\pi}{\overleftarrow{0}} \end{aligned}$ | $\stackrel{\text { \% }}{\text { N }}$ | $\stackrel{\text { 픙 }}{ }$ |
| 1 | Arusha Technical College | 5 | 25 | 30 | 1 | 29 | 30 | 4 | 28 | 32 | 13 | 69 | 82 | 25 | 125 | 150 | 48 | 168 | 216 |
| 2 | Centre for Foreign Relations Dar es Salaam | - | - | - | - | - | - | 80 | 106 | 186 | 85 | 106 | 191 | 85 | 86 | 171 | 94 | 130 | 224 |
| 3 | College of African Wildlife Management Mweka | 10 | 23 | 33 | 23 | 78 | 101 | 48 | 169 | 217 | 49 | 135 | 184 | 46 | 131 | 177 | 32 | 72 | 104 |
| 4 | College of Business Education Mwanza | - | - | - | - | - | - | 24 | 23 | 47 | 42 | 51 | 93 | 45 | 62 | 107 | 16 | 27 | 43 |
| 5 | College of Business Education Dar es Salaam | 158 | 273 | 431 | 218 | 256 | 474 | 365 | 426 | 791 | 343 | 464 | 807 | 245 | 414 | 659 | 150 | 199 | 349 |
| 6 | College of Business Education Dodoma | - | - | - | 98 | 105 | 203 | 164 | 215 | 379 | 112 | 95 | 207 | 141 | 125 | 266 | 51 | 77 | 128 |
| 7 | Community Development Training Institute | 62 | 67 | 129 | 92 | 51 | 143 | 208 | 126 | 334 | 146 | 102 | 248 | 163 | 155 | 318 | 101 | 68 | 169 |
| 8 | Dar es Salaam Institute of Technology | 44 | 390 | 434 | 76 | 458 | 534 | 55 | 509 | 564 | 112 | 579 | 691 | 106 | 593 | 699 | 113 | 528 | 641 |
| 9 | Dar Es Salaam Maritime Institute | 0 | 2 | 2 | 1 | 24 | 25 | 4 | 73 | 77 | 7 | 85 | 92 | 5 | 63 | 68 | 12 | 72 | 84 |
| 10 | Eastern Africa Statistical Training Centre | - | . | . | 18 | 21 | 39 | 18 | 50 | 68 | 22 | 63 | 85 | 14 | 32 | 46 | 19 | 28 | 47 |
| 11 | Eastern and Southern African Management Institute | - | - | - | - | - | - | - | . | - | - | - | - | 2 | 2 | 4 | - | . | - |
| 12 | Institute of Accountancy Arusha | 157 | 205 | 362 | 268 | 339 | 607 | 362 | 435 | 797 | 346 | 399 | 745 | 324 | 408 | 732 | 374 | 435 | 809 |
| 13 | Institute of Adult Education | 53 | 78 | 131 | 98 | 89 | 187 | 112 | 94 | 206 | 157 | 147 | 304 | 122 | 87 | 209 | 90 | 35 | 125 |
| 14 | Institute of Finance Management | 1,099 | 2,283 | 3,382 | 704 | 1,166 | 1,870 | 745 | 1,455 | 2,200 | 990 | 1,617 | 2,607 | 1,075 | 1,339 | 2,414 | 1,506 | 1,987 | 3,493 |
| 15 | Institute of Finance Management Mwanza | - | - | - | - | - | - | - | - | . | 12 | 12 | 24 | 71 | 56 | 127 | 55 | 70 | 125 |
| 16 | Institute of Public Administration - Zanzibar | - | - | - | - | - | - | - | - | - | . | - | . | - | - | - | 56 | 43 | 99 |
| 17 | Institute of Rural Development Planning | 161 | 275 | 436 | 219 | 339 | 558 | 299 | 403 | 702 | 255 | 385 | 640 | 428 | 553 | 981 | 292 | 381 | 673 |
| 18 | Institute of Rural Development Planning Mwanza | - | - | - | - |  | - | - | - | - | - | - | - | 11 | 21 | 32 | 23 | 38 | 61 |
| 19 | Institute of Social Work | 125 | 117 | 242 | 315 | 159 | 474 | 405 | 231 | 636 | 432 | 227 | 659 | 374 | 207 | 581 | 301 | 164 | 465 |
| 20 | Institute of Social Work- Mwanza Campus | - | - | - | - | - | - | - | - | - | - | - | - | 10 | 9 | 19 | - | - | - |
| 21 | Institute of Tax Administration | 24 | 34 | 58 | 46 | 75 | 121 | 66 | 141 | 207 | 30 | 99 | 129 | 125 | 196 | 321 | 63 | 91 | 154 |
| 22 | Karume Institute of Science and Technology | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 30 | 32 | 4 | 0 | 4 |
| 23 | National Institute of Transport | 6 | 62 | 68 | 93 | 402 | 495 | 216 | 774 | 990 | 455 | 1,529 | 1,984 | 831 | 2,107 | 2,938 | 401 | 1,145 | 1,546 |
| 24 | Tanzania Institute of Accountancy - Mwanza | . | . | . | . | . | . | . | . | . | - | . | . | 54 | 53 | 107 | 36 | 51 | 87 |
| 25 | Tanzania Institute of Accountancy - Singida | - | - | - | - | - | - | - | - | - | - | - | - | 77 | 116 | 193 | 83 | 98 | 181 |
| 26 | Tanzania Institute of Accountancy- Mbeya | - | - | - | - | - | - | 130 | 169 | 299 | 346 | 425 | 771 | 346 | 382 | 728 | 157 | 178 | 335 |
| 27 | Tanzania Institute of Accountancy Dar es Salaam | 78 | 130 | 208 | 736 | 830 | 1,566 | 1,075 | 1,106 | 2,181 | 947 | 962 | 1,909 | 1,325 | 1,195 | 2,520 | 563 | 583 | 1,146 |
| 28 | Tanzania Public Service College Dar es Salaam Campus | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 225 | 94 | 319 |
| 29 | The Mwalimu Nyerere Memorial Academy Dar es Salaam | 35 | 33 | 68 | 186 | 230 | 416 | 187 | 178 | 365 | 397 | 530 | 927 | 753 | 917 | 1,670 | 890 | 1,030 | 1,920 |
| 30 | The Mwalimu Nyerere Memorial Academy- Zanzibar | . | . | . | - | - | - | - | - | - | 6 |  | 10 | 100 | 174 | 274 | 56 | 57 | 113 |
| 31 | Water Development Management Institute | - | - | - | 9 | 67 | 76 | 18 | 106 | 124 | 37 | 174 | 211 | 53 | 218 | 271 | 40 | 118 | 158 |
|  | Grand total | 2,017 | 3,997 | 6,014 | 3,201 | 4,718 | 7,919 | 4,585 | 6,817 | 11,402 | 5,341 | 8,259 | 13,600 | 6,958 | 9,856 | 16,814 | 5,851 | 7,967 | 13,818 |

### 11.5.2 Students' Admission in Private Non-University Institutions

Unlike in public non-university institutions, total admission of students in private non-university institutions fluctuates upwards and downwards. Students' total admission increased from 91 students admitted during 2012/2013 academic year or admission cycle to 314 students who were admitted during the 2014/2015 academic year (Figure 42) then dropped to 220 students who were admitted during the 2015/2016 admission cycle. The number increased again to reach 258 students admitted during the 2016/2017 admission cycle. As it was in public nonuniversity institutions, total number of students who were admitted in private non-university institutions dropped during the 2017/2018 to reach 101 students (Figure 43).


Figure 42: Trends in students' admission in private non-university institutions 2012/13-2017/18

As was the case in public non-university institutions, female students who were admitted into various degree programmes in private non-university institutions were also consistently lower than male students. However, the magnitude of the gap displayed a decreasing trend from 2012/2013 to 2014/2015 academic years and an increasing trend in the remaining subsequent academic years for the period under reference (Figure 43). In addition, the ratio (percent) between female and male students is much higher in private non-university institutions than is the case in public non-university institutions. This suggests that female students were more likely to be admitted in private non-university institutions than in corresponding public non-university institutions. table 51 gives a list of individual private non-university institutions and their corresponding number of students who were admitted into these institutions between the 2012/2013 and the 2017/2018 admission cycles.


Figure 43: Female to male ratio of admission in private non-university institutions 2012/13-2017/18

Table 51：Students admitted into private non－university institutions by sex 2012／13－2017／18 admission cycles

|  |  | Admission Cycle |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2012／2013 |  |  | 2013／2014 |  |  | 2014／2015 |  |  | 2015／2016 |  |  | 2016／2017 |  |  | 2017／2018 |  |  |
| SN | Name of University institution |  | $\frac{\stackrel{\otimes}{\pi}}{\Sigma}$ | 镹 |  | $\frac{\otimes}{\sum_{\pi}^{\pi}}$ | $\begin{aligned} & \text { ت口 } \\ & \stackrel{y}{6} \end{aligned}$ |  | $\frac{\otimes}{\Sigma}$ | $\begin{aligned} & \text { ٓ⿹\zh26灬 } \\ & \stackrel{0}{\circ} \end{aligned}$ |  | $\frac{\stackrel{0}{\pi}}{\Sigma}$ | $\begin{aligned} & \text { ⿹ㅡㅇ } \\ & \stackrel{0}{0} \end{aligned}$ |  | $\frac{\otimes}{\sum_{\pi}^{\pi}}$ | $\begin{aligned} & \text { تू } \\ & \stackrel{\text { In }}{0} \end{aligned}$ |  | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | ． |
| 1 | Institute of Procurement and supply | 0 | 1 | 1 | 12 | 21 | 33 | 10 | 29 | 39 | 7 | 8 | 15 | 21 | 14 | 35 | － | － | － |
| 2 | MS Training Centre for Development Cooperation | － | － | － | － | － | － | － | － | － | 1 | 1 | 2 | 5 | 7 | 12 | 5 | 8 | 13 |
| 3 | Unique Academy Dar es Salaam | 2 | 5 | 7 | － | － | － | 8 | 46 | 54 | 8 | 52 | 60 | 10 | 87 | 97 | 13 | 75 | 88 |
| 4 | Zanzibar Institute of Financial Administration | 41 | 42 | 83 | 70 | 101 | 171 | 118 | 103 | 221 | 71 | 72 | 143 | 65 | 49 | 114 | － | － | － |
|  | Grand total | 43 | 48 | 91 | 82 | 122 | 204 | 136 | 178 | 314 | 87 | 133 | 220 | 101 | 157 | 258 | 18 | 83 | 101 |

### 11.6 Summary

The analysis in this chapter has revealed several key issues. Admission of students into various undergraduate degree programmes in higher learning institutions has been increasing. For example, between the 2012/2013 and the 2016/2017 admission cycles, the total number of students who were admitted into degree programmes in various higher learning institutions in the country increased from 44,715 admitted during the $2012 / 2013$ admission cycle to 63,737 students who were admitted during the 2016/2017 admission cycle. However, between the $2016 / 2017$ and the 2017/2018 admission cycles, total undergraduate students' admission decreased from 69,539 students who were admitted during the $2016 / 2017$ admission cycle to 63,737 students admitted during the 2017/2018 admission cycle.

Variations exit in total students' admission between males and females. Generally, there were more male students who were admitted across all admissions cycles for the period under reference than female students.

Likewise, there has been an overall increasing trend of total students' admission into various degree programmes in non-university institutions. For example, between the $2012 / 2013$ and the $2016 / 2017$ admission cycles, the number of students admitted into various degree programmes in non-university institutions increased from 6,105 students who were admitted during the $2012 / 2013$ academic year to 17,072 students admitted during the 2016/2017 academic year). However, the number of students admitted decreased between the 2016/2017 and the 2017/2018 admission cycles decreased from 17,072 students admitted during the 2016/2017 academic year to 13,919 students admitted during 2017/2018 academic year.

For the period under reference, total students admitted into various degree programmes varied between public and private non-university institutions. Between the 2012/2013 and the $2017 / 2018$ academic years, the number of students admitted into various degree programmes in public non-university institutions increased from 18,811 students admitted during the 2012/2013 academic year to 36,474 students admitted during the 2017/2018 academic year). Unlike in public non-university institutions, total admission of students admitted into various degree programmes in private non-university institutions appeared to oscillate upwards and downwards from one year to another. Students' total admission increased from 91 students admitted during the 2012/2013 academic year or admission cycle to 314 students who were admitted during 2014/2015 academic year then dropped to 220 students who were admitted during the 2015/2016 admission cycle. The number increased again to reach 258 students admitted during the 2016/2017 admission cycle.

## CHAPTER 12

# Undergraduate Students' Enrolment in NonUniversity Institutions 

### 12.1 Introduction

Chapter Seven presented statistics on students' enrolment into various academic degree and non-degree programmes in public and private university institutions during the 2017/2018 academic year. This chapter looks at undergraduate degree students' enrolment during the same academic year in non-university institutions, which were offering degree programmes. The analysis in this chapter was based on data that were collected from 32 non-university institutions ( $\mathrm{n}=30$; 93.8\% public and $n=2 ; 6.2 \%$ private) that offered degree programmes during the period under reference.

### 12.2 Total Enrolled Students

In total, 34,236 students who were enrolled into various Bachelor degree programmes in public and private non-university institutions during the 2017/2018 academic year. Enrolled Bachelor degree students accounted for $95.5 \%$ of the total students' enrolment (i.e., $\mathrm{n}=35,866$ ) in the 32 non-university institutions that offered Bachelor degree programmes. Of the total students who were enrolled into various Bachelor degree programmes, 19,606 (57.3\%) were males and the remaining $14,630(42.7 \%)$ were females.

### 12.3 Students' Enrolment by Ownership of Institution

The data revealed that of the total 34,236 who were enrolled into various degree programmes in non-university institutions, $99.3 \%$ ( $n=34,010$ ) were enrolled in public non-university institutions. Private institutions had 226 (0.7\%) enrolled Bachelor degree students.

### 12.4 Students' Enrolment by Programme Cluster and Ownership of Institution

Analysis of the data in this chapter revealed that students in non-university institutions were enrolled into twelve (12) different clusters. However, most of them were enrolled into four (4) clusters. These are Business ( $\mathrm{n}=22,727$; 66.4\%), Education ( $\mathrm{n}=2,828$; 8.3\%), Engineering ( $\mathrm{n}=2,754$; 8.0\%) and Social Sciences ( $\mathrm{n}=2,454 ; 7.2 \%$ ).

When the data were broken down by ownership of institution - public against private - the pattern of enrolment of students in the various clusters in public non-university institutions was found to be more or less the same as that of the combined (public and private) institutions. Table 52 gives total enrolment of students into the 12 different programme clusters in public non-university
institutions during the 2017/2018 academic year. The analysis revealed further that six (6) clusters had no enrolled students at all award levels in public nonuniversity institutions during the period under reference (Table 52). These are, namely:

- Agriculture;
- General;
- Journalism Media Studies and Communication;
- Life Sciences;
- Mining and Earth Sciences; and
- Physical Sciences and Mathematics.

Table 52: Enrolment in Bachelor degree by programme cluster in public nonuniversities 2017/2018

|  |  | Bachelor Degree |  |  |
| :---: | :--- | ---: | ---: | ---: |
| SN | Programmes Cluster | Female | Male | Total |
| 1 | Architecture and Planning | 588 | 681 | 1,269 |
| 2 | Business | 10,577 | 12,150 | 22,727 |
| 3 | Education | 1,241 | 1,587 | 2,828 |
| 4 | Engineering | 379 | 2,375 | 2,754 |
| 5 | Environmental Science or Studies and Forestry | 85 | 166 | 251 |
| 6 | Humanities and Arts |  |  |  |
| 7 | Information and Communication Technology | 249 | 983 | 1,232 |
| 8 | Law |  |  |  |
| 9 | Library, Archive and Museum Studies | 89 | 43 | 132 |
| 10 | Medicine, Veterinary and Health Sciences | 30 | 58 | 88 |
| 11 | Social Sciences | 1,262 | 1,152 | 2,414 |
| 12 | Tourism and Hospitality Studies | 94 | 221 | 315 |
|  | Grand total | 14,594 | 19,416 | 34,010 |

Students in private non-university institutions were enrolled into only three programme clusters, namely Information and Communication Technology cluster ( $\mathrm{n}=171$; 75.7\%), Social Sciences ( $\mathrm{n}=40 ; 17.7 \%$ ), and Environmental Science or Studies and Forestry ( $\mathrm{n}=15$; 6.6\%). All the remaining clusters had no enrolled students as Table 53 shows.

Table 53: Enrolment Bachelor degree by programme cluster in private nonuniversities 2017/2018

|  |  | Bachelor Degree |  |  |
| :---: | :--- | :---: | :---: | :---: |
| SN | Programmes Cluster | Female | Male | Total |
| 1 | Architecture and Planning |  |  |  |
| 2 | Business |  |  |  |
| 3 | Education | 2 | 13 | 15 |
| 4 | Engineering |  |  |  |
| 5 | Environmental Science or Studies and Forestry | 20 | 151 | 171 |
| 6 | Humanities and Arts |  |  |  |
| 7 | Information and Communication Technology |  |  |  |
| 8 | Law | 14 | 26 | 40 |
| 9 | Library, Archive and Museum Studies |  |  |  |
| 10 | Medicine, Veterinary and Health Sciences | 36 | 190 | 226 |
| 11 | Social Sciences |  |  |  |
| 12 | Tourism and Hospitality Studies |  |  |  |
|  | Grand total |  |  |  |

The data on total enrolment in various programme clusters were broken down by sex. Variations were observed between male and female students in terms of programme clusters in which they were enrolled. Figures 44 and 45 present the number of male and female students, respectively who were enrolled into the various clusters at Bachelor degree level during the 2017/2018 academic year. For male students, mostly were enrolled into the Business, Engineering, Education, Social Sciences and Information and Communication Technology (Figure 44). On the other hand, most of the female students were enrolled into three clusters, namely Business, Social Sciences and Education (Figure 45).


Figure 44: Enrolled male students by programme cluster


Figure 45: Enrolled female students by programme cluster

### 12.5 Summary

This chapter analysed students' enrolment data that were collected from thirty (30) public and two (2) private non-university institutions that offered degree programmes during the 2017/2018 academic year. The analysis has revealed that during the 2017/2018 academic year, there were 34,236 students who were enrolled in various Bachelor degree programmes. Male students who were pursuing Bachelor degree programmes accounted for the majority ( $n=19,606$; $57.3 \%)$ while the remaining 14,630 ( $42.7 \%$ ) were females.

Of the total students who were enrolled into various Bachelor degree programmes in non-university institutions, the majority ( $n=34,010$; 99.3\%) were enrolled in public non-university institutions. Private institutions had only 226 ( $0.7 \%$ ) enrolled Bachelor degree students.

On average, the thirty (30) public non-university institutions had about 1,134 students who were pursuing Bachelor degree in different years during the 2017/2018 academic year while the two (2) private non-university institutions had 113 students pursuing Bachelor degree programmes.

In terms of programme clusters, the analysis in this chapter has revealed that a significant proportion of students who were enrolled into various Bachelor degree programmes in non-university institutions during the 2017/2018 academic year were enrolled in the Business cluster ( $\mathrm{n}=22,727$; 66.4\%) followed by Education ( $\mathrm{n}=2,828$; 8.3\%), Engineering ( $\mathrm{n}=2,754 ; 8.0 \%$ ) and Social Sciences ( $\mathrm{n}=2,454$; $7.2 \%$ ) clusters. Six (6) of the total 18 programme clusters had no enrolled students during the period under reference. These are Agriculture, General, Journalism Media Studies and Communication, Life Sciences, Mining and Earth Sciences; and Physical Sciences and Mathematics.

Gender differentials on enrolment into Bachelor degree programmes was also observed in non-university institutions. It has been revealed that female students were more likely to have been enrolled into the Business cluster than male students. More than $70 \%(\mathrm{n}=10,577)$ of the total female students were pursuing Business related programmes compared to $62.1 \%(n=12,150)$ of the total male students who were in the same cluster. In contrast, male students were more likely to be enrolled into the Engineering cluster than female students. Of the total male students who were in different years of study pursuing Bachelor degree programmes, $12.1 \%(\mathrm{n}=2,375)$ were enrolled into Engineering programmes while the corresponding percentage for female students was $2.6 \%(\mathrm{n}=379)$.

## CHAPTER 13

## Conclusions

### 13.1 Introduction

This book provides important information to permit understanding of the state of university education in Tanzania. It gives key summary statistics covering a wide range of aspects concerning university education in the country. Information presented in this book include number of university institutions, ownership (public against private), academic and administrative staff profiles, number of programmes on offer and clusters, graduates and dropouts. Information provided in this book can be used to guide decision-making processes concerning university education in many dimensions at both micro and macro levels considering the dynamics of higher education at national, regional and global levels consistent with national, regional and global development objectives.

### 13.2 Conclusions

The analyses conducted revealed a number of important results based on which the following conclusions have been drawn:

Conclusion 1: The Government of the United Republic of Tanzania through the Tanzania Commission for Universities has played a critical role in creating an enabling environment necessary to bolster the establishment of university institutions in the country. University institutions have increased from one (1) University College in 1961 to thirty-four (34) Full-Fledged Universities, fifteen (15) University Colleges and eleven (11) University Campuses, Centres and Institutes that offer training programmes in various fields of education or clusters operate in the United Republic of Tanzania. In that regard, TCU will continue to exercise its supportive role to support university institutions in many dimensions such as coordinating the admission of students, offering training in key areas like quality assurance, university leadership and management in order to ensure that university institutions operate in accordance with set standards and benchmarks.

Conclusion 2: Proportionally (in terms of number of institutions), university education in Tanzania is largely dominated by private university institutions. However, more than half of the academic programmes that are on offer are offered in public university institutions and that, public university institutions have the highest population of students. Correspondingly, public
university institutions employ a great segment of academic and administration staff.

Conclusion 3: The most common degree programmes awarded in university institutions are Bachelor and Master while the most common non-degree programme offered by university institutions is Diploma. Further, a wide range of programme clusters is offered in university institutions in Tanzania with Education, Business, Medicine and Law being the most popular clusters in terms of number of programmes and student population.

Conclusion 4: Academic staffs in university institutions are concentrated in seven (7) out of the total 18 award clusters. Medicine, Veterinary and Health Sciences, Social Sciences, Education, General, Business, Humanities and Arts, and Engineering have the highest proportions of staff, comprising well over $70 \%$ of the total population of academic staff in university institutions in the country. Agriculture, Life Sciences, Architecture and Planning, Mining and Earth Sciences, Library, Archive and Museum Studies, Journalism Media Studies and Communication, and Tourism and Hospitality Studies are the award clusters that rank low in terms of number of academic staff. Lack of harmonized promotion criteria among all university institutions (public and private) in the country makes it hard to rank academic staff across institutions.

Conclusion 5: Training in university institutions is conducted by staff who mostly have Master qualifications, with PhD holders accounting for the next highest proportion.

Conclusion 6: Education; Medicine, Veterinary and Health Sciences; Business, Social Sciences; and Law programme clusters lead in number of enrolment in university institutions in the country while Life Sciences, Journalism Media Studies and Communication; Tourism and Hospitality Studies; Library, Archive and Museum Studies; Mining and Earth Sciences; and General clusters have the lowest number of students' enrolment.

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## Annexes

Annex 1: Institutional Regular Quality Audit Tool

## THE TANZANIA COMMISSION FOR UNIVERSITIES



## INSTITUTIONAL REGULAR QUALITY AUDIT TOOL

## Preliminary Information

| SN | Item |
| :--- | :--- |
| 1. | Name of the institution |
| 2. | Type of the institution (university/college/institute/centre/ directorate/school). |
| 3. | Ownership |
| 4. | Physical address of the institution |
| 5. | Postal address of the institution |
| 6. | Telephone Numbers, Mobile Number, Fax Number, Email Address and |
| 7. | Debsite |
| 8. | Institution accreditation status (when) |
| 9. | Owner(s) of the institution |
| 10. | Number of Programmes on offer (Certificates/ Diploma /Bachelor/ Masters/ |
| 11. | Total Institution carrying Capacity (2017/18) |
| 12. | Total student enrolment (2017/18) |
| 13. | Number of deregistered/discontinued students (2012/13-2016/17) |
| 14. | Total number of graduates (2012/13-2016/17) |

## Part One: Presence of Governance tools

The objective of this section is to collect basic information regarding on existing governance tools of the institutions. You will be required to collect all information and documents of the following items:

| SN | Item | Available (Av)/ Not <br> available | Remarks |
| :--- | :--- | :--- | :--- |
| 1. | Charter |  |  |
| 2. | Rolling Strategic Plan |  |  |
| 3. | Land Use Master Plan |  |  |
| 4. | Facilities' Inventory and Maintenance Manual/Policy |  |  |
| 5. | Human Resource Policy/Manual |  |  |
|  | Staff recruitment, promotion and development |  |  |
| 6. | policy/manual |  |  |
| 7. | Admission Regulations |  |  |
| 8. | Quality assurance policy |  |  |
| 9. | Existence of Online Admission System |  |  |
| 10. | Presence of Quality Assurance Office/Directorate |  |  |
| 11. | Current Prospectus |  |  |
| 12. | Student Support Services Manual |  |  |
| 13. | Examination Regulations |  |  |
| 14. | Student By-Laws/handbook |  |  |
| 15. | ICT policy |  |  |
| 16. | Research Policy |  |  |
| 17. | Consultancy Services Policy |  |  |
| 18. | Financial Regulatios |  |  |
| 19. | Existence of Workers Union |  |  |
| 20. | Existence of student Association |  |  |
| 21. | Others (specify) |  |  |

[^8]
## Part Two: Strength of Staff

The objective of this section is to collect information on qualifications of Academic and support staff of the institutions. It is important to ensure that the table is dully filled to the last column.
(a) University Management (VCs/ Principals/Provost \& Deputies; Deans/ Directors and Heads of Departments)

| そ |  | $\begin{aligned} & \stackrel{\rightharpoonup}{\mathbf{D}} \\ & \stackrel{0}{0} \end{aligned}$ | $\begin{aligned} & \frac{\text { I }}{0} \\ & \text { N } \\ & \text { 이 } \\ & \text { Z } \end{aligned}$ | $\begin{aligned} & \text { 등 } \\ & \text { ( } \\ & \text { " } \\ & \frac{\mathbb{D}}{0} \end{aligned}$ |  |  |  |  |  |  | Employment Status |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | E.g. Devotha Mmassi | Female | TZ | 1965 | Vice Chancellor |  | PhD in Education Management Master in Educational Planning \& Administration $B A$ in Education | 1996 | Liverpool | 2008 | Full-time |

(b) Administrative Staff

| ふ |  | $\begin{aligned} & \text { 힣 } \\ & \text { O} \\ & \hline 0 \end{aligned}$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | E.g. Devotha Mmassi | Female | TZ | 1965 | Vice Chancellor | PhD in Education Management Master in Educational Planning \& Administration BA in Education | 1996 | Liverpool | 2008 | Full-time |

## Academic Staff

|  |  |  |
| :--- | :--- | :--- |

## Part Three: Programmes on offer

The objective of this section is to collect information on all programmes on offer (Degree and Non-degree) for university institutions, and Bachelors and Postgraduate programmes for non-university institutions. (The listing should start with Postgraduate programmes to the lowest level).

*The Team should collect evidences of approval for programmes indicated to have been approved by either approval bodies (for this case TCU, NACTE or University Senates).

## Part Four: Students Enrolment

This section intends to collect information on all students registered in the institution in particular academic year. These shall include (non-degree, degree and postgraduate present in the institution). Note: For non-university institutions, the data is limited to Bachelors and Postgraduate students.


## Part Five: List of Graduates per programme

| $\underset{\text { ¢ }}{\substack{\text { ¢ }}}$ |  |  |  |  |  |  |  | 믕 |  | $\frac{\mathbb{1}}{0}$ |  | $\begin{aligned} & \mathscr{\infty} \\ & \frac{\pi}{U} \end{aligned}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| John | Peter |  | Mussa |  | M | T2416/2010/90 | Bachelor of Education |  | 4.3 |  | Upper second |  | 2015 |  | S0256/0089/2003 |  | UD 001 |  |

${ }^{*}$ It is advised that the Team members collect graduation books of the past five years.
Part Six: List of dropouts

|  |  |  |  |  |  |  |  |  | $\stackrel{\bar{\prime}}{\stackrel{\circ}{\infty}}$ |  | ᄃ- O ® ¢ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| John |  | K. | Peterson |  | M |  | S0246/0026/2013 |  | 2014 | Discontinued |  | T2416/2010/90 |  |  |  |

*This entails deregistered/discontinued/ deceased should be made available in soft copies
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Annex 2: Programmes on offer per institution per ward level 2017/2018

|  |  | Award level |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SN | Name of Institution |  | $\begin{aligned} & \text { 즏 } \\ & \stackrel{\circ}{\circ} \\ & \stackrel{1}{0} \end{aligned}$ |  |  |  |  |  |  |  |
| 1 | AbdulRahman Al-Sumait Memorial University | 1 | 6 | 0 | 0 | 5 | 0 | 0 | 0 | 12 |
| 2 | Aga Khan University | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 5 |
| 3 | Archbishop James University College | 6 | 3 | 0 | 0 | 5 | 0 | 0 | 0 | 14 |
| 4 | Archbishop Mihayo University College of Tabora | 12 | 0 | 0 | 0 | 6 | 1 | 2 | 0 | 21 |
| 5 | Ardhi University | 0 | 0 | 0 | 0 | 20 | 7 | 16 | 23 | 66 |
| 6 | Cardinal Rugambwa Memorial University College | 5 | 6 | 0 | 0 | 1 | 0 | 1 | 0 | 13 |
| 7 | Catholic University of Health and Allied Sciences | 0 | 3 | 0 | 0 | 5 | 0 | 7 | 1 | 16 |
| 8 | Dar es Salaam University College of Education | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 |
| 9 | Eckernforde Tanga University | 7 | 6 | 0 | 0 | 2 | 1 | 0 | 0 | 16 |
| 10 | Hubert Kairuki Memorial University | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 5 |
| 11 | International Medical and Technological University | 1 | 1 | 0 | 0 | 3 | 0 | 6 | 0 | 11 |
| 12 | Jordan University College | 12 | 15 | 0 | 0 | 11 | 0 | 5 | 0 | 43 |
| 13 | Josiah Kibira University College | 2 | 2 | 0 | 0 | 4 | 0 |  | 0 | 8 |
| 14 | Kampala International University in Tanzania | 10 | 12 | 0 | 0 | 13 | 0 | 1 | 0 | 36 |
| 15 | Kilimanjaro Christian Medical University College | 0 | 2 | 0 | 0 | 6 | 0 | 19 | 1 | 28 |
| 16 | Marian University College | 1 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 7 |
| 17 | Mbeya University of Science and Technology | 0 | 14 | 0 | 0 | 6 | 0 | 0 | 0 | 20 |
| 18 | Mkwawa University College of Education | 0 | 0 | 0 | 0 | 4 | 1 | 2 | 0 | 7 |
| 19 | Moshi Co-operative University | 8 | 5 | 0 | 0 | 10 | 4 | 3 | 1 | 31 |
| 20 | Mount Meru University | 0 | 5 | 0 | 0 | 6 | 0 | 2 | 0 | 13 |
| 21 | Mount Meru University- Mwanza Centre | 6 | 7 | 0 | 0 | 3 | 0 | 0 | 0 | 16 |
| 22 | Muhimbili University of Health and Allied Sciences | 0 | 6 | 0 | 1 | 13 | 0 | 62 | 0 | 82 |
| 23 | Muslim University of Morogoro | 6 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 20 |
| 24 | Mwenge Catholic University | 6 | 7 | 0 | 0 | 5 | 1 | 1 | 1 | 21 |
| 25 | Mzumbe University | 7 | 2 | 0 | 0 | 25 | 0 | 21 | 1 | 56 |
| 26 | Mzumbe University ?Dar es Salaam Campus College | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| 27 | Mzumbe University (MU), Mbeya Campus | 2 | 5 | 0 | 0 | 4 | 0 | 0 | 0 | 11 |
| 28 | Nelson Mandela African Institution of Science and Technology | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 7 | 14 |


| SN | Name of Institution | Award level |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
| 29 | Open University of Tanzania | 6 | 5 | 0 | 0 | 39 | 6 | 36 | 1 | 93 |
| 30 | Ruaha Catholic University | 6 | 6 | 0 | 0 | 14 | 2 | 8 | 1 | 37 |
| 31 | Sebastian Kolowa Memorial University | 0 | 0 | 0 | 0 | 7 | 0 | 1 | 0 | 8 |
| 32 | Sokoine University of Agriculture | 1 | 5 | 0 | 0 | 25 | 2 | 51 | 3 | 87 |
| 33 | St John's University of Tanzania | 10 | 10 | 0 | 0 | 9 | 2 | 8 | 1 | 40 |
| 34 | St. Augustine University of Tanzania | 8 | 7 | 0 | 0 | 13 | 1 | 9 | 2 | 40 |
| 35 | St. Augustine University of Tanzania-Arusha Centre | 3 | 3 | 0 | 0 | 2 | 0 | 1 | 0 | 9 |
| 36 | St. Augustine University of Tanzania-Mbeya Centre | 4 | 5 | 0 | 0 | 2 | 1 | 0 | 0 | 12 |
| 37 | St. Francis University College of Health and Allied Sciences | 3 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 6 |
| 38 | St. Joseph College of Engineering and Technology |  | 7 | 0 | 0 | 10 | 0 | 0 | 0 | 17 |
| 39 | St. Joseph College of Health and Allied Sciences | 3 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 6 |
| 40 | State University of Zanzibar | 15 | 25 | 4 |  | 13 | 0 | 4 | 1 | 62 |
| 41 | Stefano Moshi Memorial University | 7 | 11 | 0 | 0 | 8 | 0 | 1 | 0 | 27 |
| 42 | Stella Maris Mtwara University College |  | 7 | 0 | 0 | 5 | 0 | 2 | 0 | 14 |
| 43 | Teofilo Kisanji University | 25 | 11 | 0 | 0 | 16 | 1 | 3 | 0 | 56 |
| 44 | Teofilo Kisanji University Dar es Salaam Centre | 8 | 8 | 0 | 0 | 3 | 0 | 0 | 0 | 19 |
| 45 | Teofilo Kisanji University Tabora Centre | 15 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 21 |
| 46 | Tumaini University Dar e s Salaam College | 3 | 3 | 0 | 0 | 7 | 0 | 1 | 0 | 14 |
| 47 | Tumaini University Makumira | 4 | 4 | 0 | 0 | 8 | 0 | 3 | 1 | 20 |
| 48 | United African University of Tanzania | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| 49 | University of Arusha | 3 | 2 | 0 | 0 | 1 | 1 | 2 | 0 | 9 |
| 50 | University of Dar es Salaam | 2 | 2 | 0 | 0 | 84 | 6 | 40 | 15 | 149 |
| 51 | University of Dodoma | 15 | 28 | 0 | 0 | 79 | 4 | 33 | 14 | 173 |
| 52 | University of Iringa | 10 | 10 | 0 | 0 | 15 | 0 | 0 | 0 | 35 |
| 53 | Zanzibar University | 0 | 0 | 0 | 0 | 17 | 0 | 4 | 1 | 22 |
|  | Grand total | 243 | 285 | 4 | 1 | 556 | 41 | 377 | 75 | 1,582 |

Annex 3：Students＇enrolment per institution 2017／2018

| SN | Name of Institutions | Award level |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Certificate |  |  | Diploma |  |  | Bachelor Degree |  |  | Postgraduate Diploma |  |  | Master Degree |  |  | Doctorate Degree |  |  |  |
|  |  |  | $\frac{\otimes}{\frac{0}{\Sigma}}$ | $\stackrel{\text { 든 }}{\stackrel{1}{2}}$ |  | $\frac{\stackrel{0}{\pi}}{\sum_{2}^{\prime}}$ | $\stackrel{\text { 든 }}{\text { ! }}$ |  | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | $\stackrel{\text { 든 }}{ }$ |  | $\frac{\mathbb{D}}{\frac{0}{\Sigma}}$ | $\stackrel{\text { 등 }}{\circ}$ | $\begin{aligned} & \frac{0}{\stackrel{0}{⿷ 匚}} \\ & \stackrel{\rightharpoonup}{\mathbb{W}} \end{aligned}$ | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | $\stackrel{\text { 든 }}{\circ}$ | © $\stackrel{\text { ® }}{む}$ L | $\frac{\otimes}{\sum_{\Sigma}^{\pi}}$ |  |  |
| 1 | University of Dodoma | 54 | 61 | 115 | 831 | 1，357 | 2，188 | 7，692 | 15，183 | 22，875 | 6 | 15 | 21 | 206 | 354 | 560 | 53 | 192 | 245 | 26，004 |
| 2 | University of Dar es Salaam |  |  |  |  |  |  | 7，699 | 12，744 | 20，443 | 35 | 71 | 106 | 899 | 1，371 | 2，270 | 108 | 270 | 378 | 23，197 |
| 3 | Open University of Tanzania | 6 | 15 | 21 | 317 | 403 | 720 | 2，918 | 5，303 | 8，221 | 33 | 131 | 164 | 215 | 548 | 763 | 9 | 38 | 47 | 9，936 |
| 4 | Sokoine University of Agriculture | 9 | 25 | 34 | 223 | 242 | 465 | 2，712 | 5，857 | 8，569 | 4 | 4 | 8 | 95 | 162 | 257 | 16 | 47 | 63 | 9，396 |
| 5 | St．Augustine University of Tanzania | 81 | 88 | 169 | 343 | 298 | 641 | 2，835 | 4，047 | 6，882 |  | 3 | 3 | 149 | 188 | 337 |  |  |  | 8，032 |
| 6 | Mzumbe University Dar es Salaam University College of | 54 | 42 | 96 | 10 | 21 | 31 | 3，056 | 3，065 | 6，121 |  |  |  | 217 | 322 | 539 | 19 | 58 | 77 | 6，864 |
| 7 | Education |  |  |  |  |  |  | 2，026 | 3，928 | 5，954 | 11 | 16 | 27 | 5 | 4 | 9 |  |  |  | 5，990 |
| 8 | Mkwawa University College of Education |  |  |  |  |  |  | 1，655 | 3，725 | 5，380 |  | 7 | 7 | 3 | 3 | 6 |  |  |  | 5，393 |
| 9 | St Johns＇s University of Tanzania | 294 | 289 | 583 | 456 | 534 | 990 | 1，549 | 2，070 | 3，619 |  |  |  | 12 | 31 | 43 |  |  |  | 5，235 |
| 10 | Mwenge Catholic University | 111 | 52 | 163 | 168 | 155 | 323 | 1，383 | 2，920 | 4，303 | 2 | 7 | 9 | 31 | 48 | 79 | 11 | 19 | 30 | 4，907 |
| 11 | Ruaha Catholic University | 266 | 298 | 564 | 555 | 768 | 1，323 | 1，046 | 1，884 | 2，930 |  |  |  | 14 | 38 | 52 | 2 | 2 | 4 | 4，873 |
| 12 | Ardhi University |  |  |  | 0 | 0 | 0 | 1，742 | 2，538 | 4，280 | 2 | 11 | 13 | 67 | 122 | 189 | 12 | 49 | 61 | 4，543 |
| 13 | State Universty of Zanzibar Muhimbili University of Health and Allied | 74 | 84 | 158 | 1，215 | 827 | 2，042 | 957 | 763 | 1，720 |  |  |  | 28 | 25 | 53 | 6 | 5 | 11 | 3，984 |
| 14 | Sciences |  |  |  | 266 | 392 | 658 | 612 | 1，516 | 2，128 | 1 | 1 | 2 | 338 | 514 | 852 |  |  |  | 3，640 |
| 15 | Tumaini University Makumira | 78 | 86 | 164 | 216 | 175 | 391 | 1，159 | 1，671 | 2，830 |  |  |  | 54 | 71 | 125 |  |  |  | 3，510 |
| 16 | Mzumbe University（MU），Mbeya Campus | 29 | 18 | 47 | 199 | 212 | 411 | 1，180 | 1，180 | 2，360 |  |  |  | 18 | 65 | 83 |  |  |  | 2，901 |
| 17 | Jordan University College Catholic University of Health and Allied | 80 | 46 | 126 | 324 | 215 | 539 | 844 | 1，181 | 2，025 |  |  |  | 40 | 90 | 130 |  |  |  | 2，820 |
| 18 | Sciences |  |  |  | 296 | 437 | 733 | 765 | 1，129 | 1，894 |  |  |  | 30 | 55 | 85 | 8 | 8 | 16 | 2，728 |
| 19 | Kampala International University in Tanzania | 149 | 270 | 419 | 174 | 331 | 505 | 509 | 1，203 | 1，712 | 3 | 4 | 7 | 4 | 1 | 5 |  |  |  | 2，648 |
| 20 | University of Iringa | 236 | 187 | 423 | 212 | 254 | 466 | 699 | 790 | 1，489 |  |  |  | 62 | 122 | 184 |  |  |  | 2，562 |
| 21 | Moshi Co－operative University |  |  |  | 0 | 0 | 0 | 990 | 1，225 | 2，215 | 4 | 4 | 8 | 60 | 111 | 171 | 7 | 27 | 34 | 2，428 |
| 22 | Mbeya University of Science and Technology St．Joseph College of Engineering and |  |  |  | 0 | 0 | 0 | 362 | 2，054 | 2，416 |  |  |  |  |  |  |  |  |  | 2，416 |
| 23 | Technology |  |  |  | 44 | 323 | 367 | 408 | 1，491 | 1，899 |  |  |  |  |  |  |  |  |  | 2，266 |
| 24 | Zanzibar University |  |  |  | 0 | 0 | 0 | 1，052 | 821 | 1，873 |  |  |  | 72 | 68 | 140 |  |  |  | 2，013 |
| 25 | Teofilo Kisanji University | 102 | 92 | 194 | 305 | 258 | 563 | 428 | 768 | 1，196 |  |  |  | 24 | 28 | 52 |  |  |  | 2，005 |
| 26 | Muslim University of Morogoro St．Augustine University of Tanzania－Mbeya | 45 | 47 | 92 | 139 | 102 | 241 | 581 | 1，057 | 1，638 |  |  |  |  |  |  |  |  |  | 1，971 |
| 27 | Centre <br> Kilimanjaro Christian Medical University | 33 | 42 | 75 | 100 | 118 | 218 | 608 | 1，003 | 1，611 | 3 | 8 | 11 |  |  |  |  |  |  | 1，915 |
| 28 | College |  |  |  | 113 | 96 | 209 | 543 | 856 | 1，399 |  |  |  | 76 | 103 | 179 | 8 | 20 | 28 | 1，815 |
| 29 | Tumaini University Dar es Salaam College | 86 | 70 | 156 | 220 | 180 | 400 | 649 | 494 | 1，143 |  |  |  | 9 | 10 | 19 |  |  |  | 1，718 |


| SN | Name of Institutions | Award level |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Certificate |  |  | Diploma |  |  | Bachelor Degree |  |  | Postgraduate Diploma |  |  | Master Degree |  |  | Doctorate Degree |  |  |  |
|  |  |  | $\frac{\otimes}{N_{0}^{\pi}}$ | 픙 | $\begin{aligned} & \frac{0}{0} \\ & \stackrel{0}{0} \\ & \text { © } \end{aligned}$ | $\frac{\otimes}{\frac{\otimes}{\infty}}$ | 픙 |  | $\frac{\otimes}{\frac{0}{\pi}}$ | $\stackrel{\text { 픙 }}{\circ}$ |  | $\frac{\mathbb{D}}{\stackrel{\pi}{\Sigma \mid}}$ | $\begin{aligned} & \overline{\text { ¢ }} \\ & \hline \end{aligned}$ | $\begin{aligned} & \frac{0}{0} \\ & \stackrel{0}{\mathbb{E}} \\ & \stackrel{L}{L} \end{aligned}$ | $\frac{\infty}{\sum_{0}^{\pi}}$ | 픈 |  | $\frac{\stackrel{0}{0}}{\stackrel{0}{2}}$ | 든 |  |
| 30 | Archbishop James University College Archbishop Mihayo University College of | 17 | 13 | 30 | 0 | 0 | 0 | 461 | 1,207 | 1,668 |  |  |  |  |  |  |  |  |  | 1,698 |
| 31 | Tabora | 15 | 8 | 23 | 17 | 27 | 44 | 404 | 825 | 1,229 | 2 | 8 | 10 | 17 | 47 | 64 |  |  |  | 1,370 |
| 32 | Sebastian Kolowa Memorial University | 9 | 5 | 14 | 99 | 86 | 185 | 358 | 640 | 998 |  |  |  | 8 | 20 | 28 |  |  |  | 1,225 |
| 33 | Hubert Kuiruki Memorial University Mzumbe University (MU), Dar es Salaam |  |  |  |  |  |  | 602 | 592 | 1,194 |  |  |  |  |  |  |  |  |  | 1,194 |
| 34 | Campus College <br> St. Francis University College of Health and |  |  |  |  |  |  |  |  |  |  |  |  | 590 | 540 | 1,130 |  |  |  | 1,130 |
| 35 | Allied Sciences <br> St. Joseph College of Health and Allied | 82 | 108 | 190 | 132 | 226 | 358 | 150 | 377 | 527 |  |  |  |  |  |  |  |  |  | 1,075 |
| 36 | Sciences | 53 | 52 | 105 | 118 | 213 | 331 | 230 | 402 | 632 |  |  |  |  |  |  |  |  |  | 1,068 |
| 37 | Stella Maris Mtwara University College <br> St. Augustine University of Tanzania-Arusha | 57 | 33 | 90 | 96 | 107 | 203 | 271 | 448 | 719 |  |  |  | 8 | 26 | 34 |  |  |  | 1,046 |
| 38 | Centre | 16 | 21 | 37 | 82 | 93 | 175 | 293 | 470 | 763 |  |  |  | 15 | 21 | 36 |  |  |  | 1,011 |
| 39 | AbdulRahman Al-Sumait Memorial University | 59 | 14 | 73 | 280 | 96 | 376 | 338 | 221 | 559 |  |  |  |  |  |  |  |  |  | 1,008 |
| 40 | Stefano Moshi Memorial University | 49 | 39 | 88 | 175 | 160 | 335 | 211 | 278 | 489 |  |  |  | 4 | 10 | 14 |  |  |  | 926 |
| 41 | University of Arusha | 19 | 51 | 70 | 55 | 60 | 115 | 346 | 351 | 697 |  |  |  | 6 | 3 | 9 |  |  |  | 891 |
| 42 | Mount Meru University | 30 | 19 | 49 | 152 | 165 | 317 | 175 | 283 | 458 |  |  |  | 14 | 18 | 32 |  |  |  | 856 |
| 43 | Eckernforde Tanga University | 37 | 37 | 74 | 49 | 77 | 126 | 230 | 347 | 577 |  |  |  |  |  |  |  |  |  | 777 |
| 44 | Marian University College |  |  |  | 0 | 0 | 0 | 232 | 520 | 752 |  |  |  |  |  |  |  |  |  | 752 |
| 45 | Mount Meru University - Mwanza International Medical and Technological | 47 | 72 | 119 | 137 | 178 | 315 | 89 | 128 | 217 |  |  |  |  |  |  |  |  |  | 651 |
| 46 | University Teofilo Kisanji University Dar es Salaam |  |  |  | 8 | 14 | 22 | 217 | 372 | 589 |  |  |  |  | 4 | 4 |  |  |  | 615 |
| 47 | Centre | 125 | 152 | 277 | 16 | 41 | 57 | 130 | 137 | 267 |  |  |  |  |  |  |  |  |  | 601 |
| 48 | Josiah Kibira University College <br> St John's University of Tanzania - Marks |  |  |  | 0 | 0 | 0 | 106 | 418 | 524 |  |  |  |  |  |  |  |  |  | 524 |
| 49 | Centre <br> Cardinal Rugambwa Memorial University | 7 | 6 | 13 | 134 | 37 | 171 | 104 | 103 | 207 |  |  |  |  |  |  |  |  |  | 391 |
| 50 | College <br> Jomo Kenyatta University of Agriculture and | 6 | 16 | 22 | 26 | 25 | 51 | 80 | 207 | 287 |  |  |  | 4 | 13 | 17 |  |  |  | 377 |
| 51 | Technology Arusha Centre | 7 | 21 | 28 | 111 | 122 | 233 | 40 | 53 | 93 |  |  |  |  |  |  |  |  |  | 354 |
| 52 53 | Teofilo Kisanji University Tabora Centre Nelson Mandela African Institution of Science and Technology | 75 | 126 | 201 | 12 | 31 | 43 | 15 | 31 | 46 |  |  |  | 48 | 84 | 132 | 12 | 46 | 58 | 290 190 |
| 54 | Aga Khan University |  |  |  |  |  |  | 38 | 11 | 49 |  |  |  | 27 | 53 | 80 |  |  |  | 129 |
| 55 | United African University of Tanzania |  |  |  |  |  |  | 9 | 95 | 104 |  |  |  |  |  |  |  |  |  | 104 |
|  | Grand total | 2,497 | 2,605 | 5,102 | 8,425 | 9,456 | 17,881 | 53,788 | 90,982 | 144,770 | 106 | 290 | 396 | 3,469 | 5,293 | 8,762 | 271 | 781 | 1,0 <br> 52 | 177,963 |

Annex 4: Enrolment by programme cluster in public university institutions 2017/2018


Annex 5: Enrolment by programme cluster in private university institutions 2017/2018

| SN | Programmes Cluster | Award by level |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Certificate |  |  | Diploma |  |  | Bachelor Degree |  |  | Postgraduate Diploma |  |  | Master Degree |  |  | Doctorate Degree |  |  |  |
|  |  |  | $\frac{0}{\sum_{2}^{01}}$ |  | $\stackrel{\text { ® }}{0}$ $\stackrel{10}{\overline{0}}$ ㄴ | $\frac{0}{\mathbb{N}}$ | $\begin{aligned} & \text { 든 } \\ & \hline \end{aligned}$ |  | $\frac{0}{N}$ | $\begin{aligned} & \text { 든 } \\ & \hline \end{aligned}$ |  | $\frac{0}{\frac{0}{N}}$ | ㄷ.ᅳ는 |  | $\frac{\mathbb{O}}{\frac{0}{N}}$ | - ¢ |  | $\frac{0}{0}$ | 든 |  |
| 1 | Education | 135 | 101 | 236 | 798 | 700 | 1,498 | 10,365 | 17,335 | 27,700 | 10 | 27 | 37 | 246 | 420 | 666 | 11 | 19 | 30 | 30,167 |
| 2 | Medicine, Veterinary and Health Sciences | 744 | 840 | 1,584 | 1,680 | 2,460 | 4,140 | 3,809 | 6,076 | 9,885 |  |  |  | 113 | 175 | 288 | 8 | 8 | 16 | 15,913 |
| 3 | Business | 548 | 511 | 1,059 | 1,044 | 935 | 1,979 | 1,751 | 1,717 | 3,468 |  | 3 | 3 | 139 | 238 | 377 |  |  |  | 6,886 |
| 4 | Social Sciences | 292 | 254 | 546 | 665 | 434 | 1,099 | 1,695 | 1,770 | 3,465 |  |  |  | 81 | 107 | 188 |  |  |  | 5,298 |
| 5 | Law | 297 | 314 | 611 | 621 | 638 | 1,259 | 1,263 | 1,627 | 2,890 |  |  |  | 37 | 47 | 84 | 2 | 2 | 4 | 4,848 |
| 6 | Information and Communication Technology | 89 | 215 | 304 | 254 | 426 | 680 | 416 | 913 | 1,329 |  |  |  |  |  |  |  |  |  | 2,313 |
| 7 | Engineering |  |  |  | 28 | 246 | 274 | 333 | 1,285 | 1,618 |  |  |  |  |  |  |  |  |  | 1,892 |
| 8 | Journalism Media Studies and Communication | 45 | 43 | 88 | 104 | 84 | 188 | 218 | 354 | 572 |  |  |  | 6 | 10 | 16 |  |  |  | 864 |
| 9 | Humanities and Arts | 9 | 5 | 14 | 6 | 5 | 11 | 62 | 289 | 351 |  |  |  | 58 | 71 | 129 |  |  |  | 505 |
| 10 | Library, Archives and Museum Studies | 87 | 43 | 130 | 142 | 57 | 199 | 45 | 15 | 60 |  |  |  |  |  |  |  |  |  | 389 |
| 11 | Tourism and Hospitality Studies | 7 | 8 | 15 | 4 | 1 | 5 | 85 | 152 | 237 |  |  |  |  |  |  |  |  |  | 257 |
| 12 | Physical Sciences and Mathematics |  |  |  |  |  |  | 47 | 207 | 254 |  |  |  |  |  |  |  |  |  | 254 |
| 13 | Life Sciences |  |  |  |  |  |  | 68 | 115 | 183 |  |  |  |  |  |  |  |  |  | 183 |
| 14 | Environmental Science or Studies and Forestry |  |  |  |  |  |  | 30 | 46 | 76 |  |  |  |  |  |  |  |  |  | 76 |
| 15 | General |  |  |  | 9 | 9 | 18 |  |  |  |  |  |  |  |  |  | 8 | 20 | 28 | 46 |
| 16 | Agriculture | 18 | 26 | 44 | 1 |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  | 45 |
| 17 | Architecture and Planning |  |  |  | 8 | 7 | 15 |  |  |  |  |  |  |  |  |  |  |  |  | 15 |
| 18 | Mining and Earth Sciences |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Grand total | 2,271 | 2,360 | 4,631 | 5,364 | 6,002 | 11,366 | 20,187 | 31,901 | 52,088 | 10 | 30 | 40 | 680 | 1,068 | 1,748 | 29 | 49 | 78 | 69,951 |

Annex 6: Enrolment by programme cluster in Full-Fledged Universities 2017/2018

| SN | Programmes Cluster | Award level |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Certificate |  |  |  | Diploma |  | Bachelor Degree |  |  | Postgraduate Diploma |  |  | Master Degree |  |  | Doctorate Degree |  |  |  |
|  |  | $\begin{aligned} & \frac{0}{0} \\ & \stackrel{0}{0} \\ & \text { © } \end{aligned}$ | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | $\begin{aligned} & \text { 픈 } \\ & \hline \end{aligned}$ |  | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | $\begin{aligned} & \text { 픙 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \frac{0}{0} \\ & \stackrel{\text { © }}{00} \end{aligned}$ | $\frac{0}{\frac{0}{N}}$ | $\begin{aligned} & \overline{\text { 퓽 }} \end{aligned}$ |  | $\frac{0}{\sum_{2}^{01}}$ | $\begin{aligned} & \text { 픈 } \\ & \stackrel{1}{2} \end{aligned}$ |  | $\frac{0}{\sum_{2}^{\pi}}$ | $\begin{aligned} & \text { 퓽 } \\ & \hline \end{aligned}$ | O © ¢ L | $\frac{0}{\sum_{2}^{01}}$ | $\begin{aligned} & \text { 픈 } \\ & \hline \end{aligned}$ |  |
| 1 | Education <br> Medicine, Veterinary and Health | 108 | 58 | 166 | 1,194 | 1,247 | 2,441 | 15,740 | 26,714 | 42,454 | 69 | 156 | 225 | 483 | 732 | 1,215 | 44 | 82 | 126 | 46,627 |
| 2 | Sciences | 613 | 691 | 1,304 | 2,612 | 3,351 | 5,963 | 4,217 | 7,319 | 11,536 | 1 | 1 | 2 | 503 | 696 | 1,199 | 12 | 14 | 26 | 20,030 |
| 3 | Business | 455 | 406 | 861 | 1,003 | 885 | 1,888 | 5,847 | 6,374 | 12,221 | 9 | 31 | 40 | 547 | 917 | 1,464 | 6 | 69 | 75 | 16,549 |
| 4 | Social Sciences | 176 | 158 | 334 | 717 | 458 | 1,175 | 6,120 | 6,985 | 13,105 |  |  |  | 257 | 435 | 692 | 26 | 81 | 107 | 15,413 |
| 5 | Law | 263 | 253 | 516 | 514 | 494 | 1,008 | 2,509 | 3,644 | 6,153 | 2 | 14 | 16 | 216 | 271 | 487 | 21 | 45 | 66 | 8,246 |
| 6 | Engineering Information and Communication |  |  |  |  |  |  | 1,425 | 6,277 | 7,702 | 2 | 18 | 20 | 51 | 189 | 240 | 8 | 61 | 69 | 8,031 |
| 7 | Technology | 91 | 190 | 281 | 483 | 656 | 1,139 | 1,258 | 2,643 | 3,901 |  | 8 | 8 | 33 | 87 | 120 | 2 | 20 | 22 | 5,471 |
| 8 | Agriculture | 21 | 33 | 54 | 76 | 84 | 160 | 1,460 | 3,039 | 4,499 |  |  |  | 41 | 79 | 120 | 6 | 12 | 18 | 4,851 |
| 9 | Architecture and Planning | 4 | 6 | 10 | 29 | 28 | 57 | 1,146 | 1,807 | 2,953 | 2 | 11 | 13 | 191 | 297 | 488 | 12 | 49 | 61 | 3,582 |
| 10 | Humanities and Arts Environmental Science or Studies | 15 | 11 | 26 | 3 | 2 | 5 | 1,191 | 1,809 | 3,000 |  |  |  | 145 | 212 | 357 | 44 | 104 | 148 | 3,536 |
| 11 | and Forestry <br> Physical Sciences and |  |  |  | 29 | 55 | 84 | 781 | 1,212 | 1,993 | 1 | 3 | 4 | 84 | 168 | 252 | 8 | 29 | 37 | 2,370 |
| 12 | Mathematics |  |  |  | 10 | 14 | 24 | 490 | 1,393 | 1,883 |  |  |  | 53 | 141 | 194 | 14 | 28 | 42 | 2,143 |
| 13 | Life Sciences Journalism Media Studies and |  |  |  |  |  |  | 450 | 786 | 1,236 |  |  |  | 43 | 83 | 126 | 13 | 24 | 37 | 1,399 |
| 14 | Communication | 45 | 43 | 88 | 135 | 119 | 254 | 395 | 609 | 1,004 |  | 4 | 4 | 16 | 24 | 40 | 1 | 5 | 6 | 1,396 |
| 15 | Tourism and Hospitality Studies Library, Archives and Museum | 9 | 13 | 22 | 19 | 38 | 57 | 427 | 775 | 1,202 |  |  |  | 5 | 15 | 20 |  |  |  | 1,301 |
| 16 | Studies | 61 | 33 | 94 | 158 | 52 | 210 | 421 | 297 | 718 | 0 | 0 | 0 | 20 | 24 | 44 | 7 | 5 | 12 | 1,078 |
| 17 | Mining and Earth Sciences |  |  |  | 18 | 59 | 77 | 186 | 765 | 951 |  |  |  | 5 | 11 | 16 | 3 | 1 | 4 | 1,048 |
| 18 | General | 1 | 3 | 4 | 9 | 9 | 18 | 0 |  |  | 4 | 5 | 9 |  |  |  | 36 | 132 | 168 | 199 |
|  | Grand total | 1,862 | 1,898 | 3,760 | 7,009 | 7,551 | 14,560 | 44,063 | 72,448 | 116,511 | 90 | 251 | 341 | 2,693 | 4,381 | 7,074 | 263 | 761 | 1,024 | 143,270 |

Annex 7: Enrolment by programme cluster in University College 2017/2018

| SN | Programmes Cluster | Award level |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Certificate |  | Diploma |  |  | Bachelor Degree |  |  |  | Postgraduate Diploma |  |  | Master Degree |  |  | Doctorate Degree |  |  |  |
|  |  |  | $\frac{\otimes}{\frac{0}{N}}$ | 든 |  | $\frac{\otimes}{\sum_{N}^{N}}$ | 든 | O © ¢ ¢ | $\frac{0}{\frac{0}{N}}$ | 든 |  | $\stackrel{\text { O }}{\text { N }}$ | $\stackrel{\text { 픈 }}{\bullet}$ | © © ¢ L | $\frac{0}{ \pm}$ | $\begin{aligned} & \text { 픙 } \\ & \hline \end{aligned}$ | O $\stackrel{0}{0}$ ¢ L | $\stackrel{\text { d }}{\frac{0}{01}}$ | 든 |  |
| 1 | Education |  |  |  | 160 | 126 | 286 | 5,508 | 11,220 | 16,728 | 13 | 31 | 44 | 56 | 105 | 161 |  |  |  | 17,219 |
| 2 | Medicine, Veterinary and Health Sciences | 135 | 160 | 295 | 363 | 535 | 898 | 1,067 | 2,147 | 3,214 |  |  |  | 76 | 103 | 179 |  |  |  | 4,586 |
| 3 | Engineering |  |  |  | 28 | 246 | 274 | 275 | 1,090 | 1,365 |  |  |  |  |  |  |  |  |  | 1,639 |
| 4 | Business | 61 | 50 | 111 | 116 | 102 | 218 | 187 | 170 | 357 |  |  |  | 16 | 65 | 81 |  |  |  | 767 |
| 5 | Social Sciences | 53 | 20 | 73 | 74 | 37 | 111 | 106 | 141 | 247 |  |  |  | 4 | 4 | 8 |  |  |  | 439 |
| 6 | Information and Communication Technology | 1 | 17 | 18 | 25 | 111 | 136 | 52 | 215 | 267 |  |  |  |  |  |  |  |  |  | 421 |
| 7 | Humanities and Arts | 9 | 5 | 14 | 6 | 5 | 11 | 52 | 259 | 311 |  |  |  | 1 | 9 | 10 |  |  |  | 346 |
| 8 | Law | 24 | 14 | 38 | 46 | 50 | 96 | 67 | 119 | 186 |  |  |  |  |  |  |  |  |  | 320 |
| 9 | Life Sciences |  |  |  |  |  |  | 68 | 115 | 183 |  |  |  |  |  |  |  |  |  | 183 |
| 10 | Physical Sciences and Mathematics |  |  |  |  |  |  | 28 | 109 | 137 |  |  |  |  |  |  |  |  |  | 137 |
| 11 | Library, Archives and Museum Studies | 27 | 10 | 37 | 52 | 20 | 72 |  |  |  |  |  |  |  |  |  |  |  |  | 109 |
| 12 | General |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 8 | 20 | 28 | 28 |
| 13 | Agriculture |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 | Architecture and Planning |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 | Environmental Science or Studies and Forestry |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | Journalism Media Studies and Communication |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17 | Mining and Earth Sciences |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18 | Tourism and Hospitality Studies |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Grand total | 310 | 276 | 586 | 870 | 1,232 | 2,102 | 7,410 | 15,585 | 22,995 | 13 | 31 | 44 | 153 | 286 | 439 | 8 | 20 | 28 | 26,194 |

Annex 8: Graduates by institution 2013-2017

|  |  | Year of graduation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2013 |  |  | 2014 |  |  | 2015 |  |  | 2016 |  |  | 2017 |  |  |  |
|  |  |  | $\frac{0}{\sum_{2}^{\pi}}$ | $\begin{aligned} & \overline{\boxed{\circ}} \\ & \stackrel{5}{\circ} \end{aligned}$ | $\begin{aligned} & \frac{\mathbb{D}}{\mathbb{0}} \\ & \underset{\sim}{\mathbb{N}} \end{aligned}$ | $\frac{0}{\sum_{0}^{0}}$ |  |  | $\frac{\mathbb{N}}{\frac{0}{2}}$ | $\begin{aligned} & \text { 등 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \frac{\mathbb{D}}{\mathbb{0}} \\ & \underset{\sim}{\mathbb{N}} \end{aligned}$ | $\frac{0}{\sum_{2}^{01}}$ | $\begin{aligned} & \text { 듕 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \frac{\mathbb{Q}}{\stackrel{0}{0}} \\ & \underset{\sim}{0} \end{aligned}$ | $\frac{0}{\sum_{\sum}^{\pi}}$ | 든 | 픙 ㅁ 픙 |
| 1 | University of Dar es Salaam | 2,009 | 3,546 | 5,555 | 2,041 | 3,083 | 5,124 | 1,927 | 3,398 | 5,325 | 1,916 | 3,300 | 5,216 | 2,079 | 3,275 | 5,354 | 26,574 |
| 2 | University of Dodoma | 2,081 | 3,011 | 5,092 | 1,503 | 2,434 | 3,937 | 1,165 | 2,489 | 3,654 | 1,598 | 3,229 | 4,827 | 1,748 | 3,887 | 5,635 | 23,145 |
| 3 | Open University of Tanzania | 2,230 | 2,734 | 4,964 | 1,502 | 2,164 | 3,666 | 1,804 | 2,355 | 4,159 | 1,639 | 2,358 | 3,997 | 633 | 814 | 1,447 | 18,233 |
| 4 | St. Augustine University of Tanzania | 1,980 | 2,203 | 4,183 | 1,829 | 2,032 | 3,861 | 1,226 | 1,746 | 2,972 | 1,002 | 1,391 | 2,393 | 892 | 1,156 | 2,048 | 15,457 |
| 5 | Sokoine University of Agriculture | 675 | 1,536 | 2,211 | 607 | 1,078 | 1,685 | 593 | 1,492 | 2,085 | 715 | 1,676 | 2,391 | 941 | 1,750 | 2,691 | 11,063 |
| 6 | Mzumbe University | 823 | 958 | 1,781 | 927 | 1,193 | 2,120 | 901 | 1,077 | 1,978 | 1,023 | 1,191 | 2,214 | 1,029 | 1,089 | 2,118 | 10,211 |
| 7 | Ruaha Catholic University | 646 | 998 | 1,644 | 630 | 1,048 | 1,678 | 700 | 1,052 | 1,752 | 652 | 968 | 1,620 | 572 | 995 | 1,567 | 8,261 |
| 8 | St John's University of Tanzania | 936 | 993 | 1,929 | 901 | 905 | 1,806 | 796 | 882 | 1,678 | 723 | 699 | 1,422 | 544 | 598 | 1,142 | 7,977 |
| 9 | Dar es Salaam University College of Education | 439 | 549 | 988 | 463 | 671 | 1,134 | 383 | 792 | 1,175 | 375 | 808 | 1,183 | 471 | 902 | 1,373 | 5,853 |
| 10 | Teofilo Kisanji University | 547 | 783 | 1,330 | 620 | 759 | 1,379 | 363 | 555 | 918 | 425 | 816 | 1,241 | 282 | 501 | 783 | 5,651 |
| 11 | University of Iringa | 808 | 1,026 | 1,834 | 472 | 619 | 1,091 | 298 | 362 | 660 | 262 | 324 | 586 | 808 | 817 | 1,625 | 5,796 |
| 12 | Jordan University College | 295 | 403 | 698 | 417 | 609 | 1,026 | 538 | 708 | 1,246 | 573 | 695 | 1,268 | 570 | 732 | 1,302 | 5,540 |
|  | Muhimbili University of Health and Allied |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 | Sciences | 278 | 548 | 826 | 393 | 668 | 1,061 | 400 | 664 | 1,064 | 447 | 653 | 1,100 | 493 | 826 | 1,319 | 5,370 |
| 14 | Kampala International University in Tanzania | 551 | 522 | 1,073 | 419 | 459 | 878 | 463 | 519 | 982 | 448 | 558 | 1,006 | 325 | 462 | 787 | 4,726 |
| 15 | Ardhi University | 259 | 599 | 858 | 311 | 697 | 1,008 | 316 | 605 | 921 | 312 | 629 | 941 | 400 | 573 | 973 | 4,701 |
| 16 | Mkwawa University College of Education | 353 | 403 | 756 | 287 | 448 | 735 | 297 | 678 | 975 | 244 | 706 | 950 | 298 | 806 | 1,104 | 4,520 |
| 17 | Tumaini University Makumira | 365 | 409 | 774 | 374 | 456 | 830 | 481 | 697 | 1,178 | 402 | 596 | 998 | 259 | 378 | 637 | 4,417 |
| 18 | Stella Maris Mtwara University College | 210 | 651 | 861 | 210 | 505 | 715 | 193 | 305 | 498 | 511 | 783 | 1,294 | 426 | 661 | 1,087 | 4,455 |
|  | Mzumbe University -Dar Es Salaam Campus |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19 | College | 547 | 676 | 1,223 | 480 | 504 | 984 | 437 | 446 | 883 | 311 | 245 | 556 | 329 | 281 | 610 | 4,256 |
| 20 | Mwenge Catholic University | 179 | 258 | 437 | 220 | 340 | 560 | 236 | 537 | 773 | 430 | 802 | 1,232 | 404 | 770 | 1,174 | 4,176 |
| 21 | Mzumbe University, Mbeya Campus | 246 | 310 | 556 | 436 | 395 | 831 | 523 | 489 | 1,012 | 393 | 399 | 792 | 368 | 366 | 734 | 3,925 |
| 22 | Stefano Moshi Memorial University | 226 | 366 | 592 | 197 | 337 | 534 | 378 | 690 | 1,068 | 401 | 569 | 970 | 117 | 153 | 270 | 3,434 |
| 23 | Muslim University of Morogoro | 311 | 412 | 723 | 387 | 630 | 1,017 | 169 | 224 | 393 | 292 | 439 | 731 | 183 | 338 | 521 | 3,385 |
| 24 | Moshi Co-operative University | 334 | 501 | 835 | 269 | 446 | 715 | 291 | 392 | 683 | 239 | 341 | 580 | 276 | 384 | 660 | 3,473 |
| 25 | State University of Zanzibar | 338 | 301 | 639 | 453 | 257 | 710 | 456 | 252 | 708 | 583 | 339 | 922 |  |  |  | 2,979 |
|  | St. Joseph College of Engineering and |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 26 | Technology <br> Archbishop Mihayo University College of | 39 | 289 | 328 | 74 | 341 | 415 | 52 | 455 | 507 | 58 | 340 | 398 | 302 | 1,142 | 1,444 | 3,092 |
| 27 | Tabora | 227 | 491 | 718 | 101 | 314 | 415 | 144 | 247 | 391 | 177 | 548 | 725 | 119 | 326 | 445 | 2,694 |
| 28 | Tumaini University Dar es Salaam College | 229 | 236 | 465 | 277 | 322 | 599 | 249 | 267 | 516 | 330 | 256 | 586 | 188 | 188 | 376 | 2,542 |
| 29 | Sebastian Kolowa Memorial University | 225 | 324 | 549 | 225 | 383 | 608 | 143 | 180 | 323 | 183 | 299 | 482 | 216 | 310 | 526 | 2,488 |
|  | St John's University of Tanzania - Marks |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 | Centre | 320 | 264 | 584 | 261 | 218 | 479 | 269 | 249 | 518 | 236 | 161 | 397 | 132 | 61 | 193 | 2,171 |


| SN | Name of Institution | Year of graduation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2013 |  |  | 2014 |  |  | 2015 |  |  | 2016 |  |  | 2017 |  |  |  |
|  |  |  | $\frac{0}{\sum_{\sum}^{\pi}}$ | $\begin{aligned} & \overline{\boxed{\circ}} \\ & \stackrel{0}{\circ} \end{aligned}$ |  | $\frac{0}{\mathbb{N}}$ |  | $\begin{aligned} & \frac{\mathbb{D}}{\mathbb{N}} \\ & \underset{\sim}{\mathbb{N}} \end{aligned}$ | $\frac{0}{\mathbb{N}}$ | $\begin{aligned} & \overline{\mathrm{I}} \\ & \stackrel{0}{0} \end{aligned}$ |  | $\frac{0}{\sum^{\pi}}$ | $\stackrel{\text { 픈 }}{ }$ | $\begin{aligned} & \frac{\mathbb{D}}{\mathbb{0}} \\ & \underset{\sim}{\mathbb{N}} \end{aligned}$ | $\frac{0}{\frac{0}{N}}$ | $\stackrel{\text { 픈 }}{ }$ |  |
| 31 | AbdulRahman Al-Sumait Memorial University | 138 | 127 | 265 | 129 | 137 | 266 | 468 | 218 | 686 | 373 | 226 | 599 | 296 | 168 | 464 | 2,280 |
| 32 | Zanzibar University | 173 | 158 | 331 | 198 | 199 | 397 |  |  |  | 468 | 289 | 757 | 234 | 165 | 399 | 1,884 |
| 33 | Catholic University of Health and Allied Sciences <br> Kilimanjaro Christian Medical University | 79 | 178 | 257 | 120 | 219 | 339 | 133 | 257 | 390 | 179 | 233 | 412 | 171 | 244 | 415 | 1,813 |
| 34 | College | 113 | 163 | 276 | 154 | 205 | 359 | 134 | 208 | 342 | 103 | 191 | 294 | 150 | 193 | 343 | 1,614 |
| 35 | Mbeya University of Science and Technology | 7 | 114 | 121 | 25 | 206 | 231 | 17 | 168 | 185 | 32 | 276 | 308 | 51 | 409 | 460 | 1,305 |
| 36 | University of Arusha |  |  |  | 378 | 524 | 902 |  |  |  |  |  |  | 192 | 280 | 472 | 1,374 |
| 37 | Archbishop James University College |  |  |  | 71 | 89 | 160 | 137 | 295 | 432 | 92 | 194 | 286 | 133 | 239 | 372 | 1,250 |
| 38 | Eckernforde Tanga University <br> St. Augustine University of Tanzania-Mbeya | 22 | 46 | 68 | 95 | 221 | 316 | 102 | 145 | 247 | 100 | 179 | 279 | 45 | 61 | 106 | 1,016 |
| 39 | Centre International Medical and Technological |  |  |  |  |  |  |  |  |  | 204 | 259 | 463 | 255 | 449 | 704 | 1,167 |
| 40 | University Cardinal Rugambwa Memorial University | 70 | 101 | 171 | 50 | 116 | 166 | 94 | 101 | 195 | 100 | 136 | 236 | 59 | 103 | 162 | 930 |
| 41 | College <br> Teofilo Kisanji University Dar es Salaam |  |  |  | 74 | 136 | 210 | 89 | 188 | 277 | 36 | 102 | 138 | 73 | 133 | 206 | 831 |
| 42 | Centre | 62 | 37 | 99 | 114 | 70 | 184 | 97 | 77 | 174 | 96 | 92 | 188 | 65 | 86 | 151 | 796 |
| 43 | Josiah Kibira University College |  |  |  |  |  |  | 103 | 267 | 370 | 78 | 199 | 277 | 20 | 44 | 64 | 711 |
| 44 | Teofilo Kisanji University Tabora Centre | 48 | 77 | 125 | 60 | 158 | 218 | 35 | 71 | 106 | 20 | 37 | 57 | 81 | 92 | 173 | 679 |
| 45 | Mount Meru University - Mwanza |  |  |  |  |  |  | 85 | 89 | 174 | 93 | 107 | 200 | 166 | 139 | 305 | 679 |
| 46 | Hubert Kairuki Memorial University | 40 | 42 | 82 | 54 | 37 | 91 | 69 | 40 | 109 | 49 | 47 | 96 | 85 | 94 | 179 | 557 |
| 47 | St. Augustine University of Tanzania-Arusha Centre <br> St. Francis University College of Health and |  |  |  |  |  |  | 42 | 36 | 78 | 68 | 53 | 121 | 171 | 246 | 417 | 616 |
| 48 | Allied Sciences <br> Nelson Mandela African Institution of |  |  |  |  |  |  | 10 | 33 | 43 | 54 | 146 | 200 | 66 | 199 | 265 | 508 |
| 49 | Science and Technology | 6 | 38 | 44 | 27 | 77 | 104 |  |  |  | 18 | 49 | 67 | 18 | 65 | 83 | 298 |
| 50 | Mount Meru University |  |  |  |  |  |  |  |  |  |  |  |  | 251 | 267 | 518 | 518 |
| 51 | Aga Khan University Jomo Kenyatta University of Agriculture and | 21 | 26 | 47 | 12 | 15 | 27 | 33 | 25 | 58 | 47 | 37 | 84 | 40 | 36 | 76 | 292 |
| 52 | Technology |  |  |  | 2 | 7 | 9 | 2 | 6 | 8 | 3 | 6 | 9 | 3 | 3 | 6 | 32 |
| 53 | United African University of Tanzania |  |  |  | 1 | 1 | 2 |  | 2 | 2 |  |  |  | 6 | 3 | 9 | 13 |
|  | Grand total | 19,485 | 27,407 | 46,892 | 18,850 | 26,732 | 45,582 | 17,841 | 27,030 | 44,871 | 19,113 | 28,976 | 48,089 | 18,035 | 28,259 | 46,294 | 231,728 |

Annex 9: Overall graduation trends by programme cluster in university institutions 2013-2017

|  |  | Year of graduation |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{array}{r} \text { Grand } \\ \text { total } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2013 |  |  | 2014 |  |  | 2015 |  |  | 2016 |  |  | 2017 |  |  |  |
| SN | Programme Cluster | $\begin{aligned} & \frac{0}{\mathbb{N}} \\ & \stackrel{\rightharpoonup}{\mathbb{W}} \end{aligned}$ | $\frac{0}{\frac{0}{2}}$ | $\stackrel{\overline{\text { 픙 }}}{ }$ |  | $\frac{\mathbb{D}}{\frac{N}{2}}$ | $\stackrel{\text { 픙 }}{ }$ |  | $\frac{0}{\sqrt{N}}$ | $\begin{aligned} & \overline{\text { 응 }} \end{aligned}$ |  | $\frac{\mathbb{D}}{\sum_{\sum}^{\pi}}$ | $\stackrel{\overline{\mathrm{I}} \mathrm{O}}{\circ}$ |  | $\frac{\otimes}{\frac{0}{\Sigma}}$ |  |  |
| 1 | Education | 6,920 | 9,766 | 16,686 | 7,376 | 9,925 | 17,301 | 7,242 | 11,555 | 18,797 | 7,303 | 12,148 | 19,451 | 6,769 | 12,278 | 19,047 | 91,282 |
| 2 | Business | 3,764 | 4,964 | 8,728 | 4,273 | 5,119 | 9,392 | 3,719 | 4,511 | 8,230 | 4,246 | 4,505 | 8,751 | 4,008 | 4,198 | 8,206 | 43,307 |
| 3 | Social Sciences Medicine, Veterinary and Health | 2,851 | 3,201 | 6,052 | 2,193 | 2,546 | 4,739 | 1,764 | 1,935 | 3,699 | 1,704 | 1,833 | 3,537 | 1,792 | 1,964 | 3,756 | 21,783 |
| 4 | Sciences | 916 | 1,287 | 2,203 | 905 | 1,510 | 2,415 | 1,302 | 1,961 | 3,263 | 1,613 | 2,441 | 4,054 | 1,706 | 2,521 | 4,227 | 16,162 |
| 5 | Law | 1,047 | 1,551 | 2,598 | 1,198 | 1,764 | 2,962 | 1,225 | 1,693 | 2,918 | 1,122 | 1,512 | 2,634 | 1,195 | 1,533 | 2,728 | 13,840 |
| 6 | Engineering | 155 | 1,125 | 1,280 | 234 | 1,399 | 1,633 | 206 | 1,416 | 1,622 | 304 | 1,610 | 1,914 | 447 | 2,138 | 2,585 | 9,034 |
| 7 | General Information and Communication | 1,335 | 1,419 | 2,754 | 414 | 584 | 998 | 486 | 674 | 1,160 | 735 | 1,208 | 1,943 | 13 | 20 | 33 | 6,888 |
| 8 | Technology Journalism Media Studies and | 192 | 700 | 892 | 248 | 809 | 1,057 | 171 | 493 | 664 | 381 | 992 | 1,373 | 271 | 782 | 1,053 | 5,039 |
| 9 | Communication <br> Environmental Science or Studies and | 799 | 639 | 1,438 | 730 | 616 | 1,346 | 467 | 391 | 858 | 339 | 278 | 617 | 304 | 241 | 545 | 4,804 |
| 10 | Forestry | 235 | 543 | 778 | 250 | 449 | 699 | 221 | 428 | 649 | 321 | 521 | 842 | 270 | 484 | 754 | 3,722 |
| 11 | Agriculture | 223 | 494 | 717 | 203 | 334 | 537 | 189 | 501 | 690 | 197 | 456 | 653 | 361 | 603 | 964 | 3,561 |
| 12 | Humanities and Arts | 400 | 558 | 958 | 172 | 364 | 536 | 164 | 309 | 473 | 122 | 189 | 311 | 165 | 177 | 342 | 2,620 |
| 13 | Tourism and Hospitality Studies | 271 | 388 | 659 | 134 | 322 | 456 | 113 | 183 | 296 | 149 | 192 | 341 | 125 | 166 | 291 | 2,043 |
| 14 | Architecture and Planning | 87 | 277 | 364 | 112 | 299 | 411 | 115 | 254 | 369 | 131 | 310 | 441 | 157 | 244 | 401 | 1,986 |
| 15 | Physical Sciences and Mathematics | 37 | 135 | 172 | 88 | 310 | 398 | 79 | 350 | 429 | 72 | 276 | 348 | 129 | 387 | 516 | 1,863 |
| 16 | Library, Archive and Museum Studies | 151 | 46 | 197 | 213 | 87 | 300 | 225 | 86 | 311 | 269 | 147 | 416 | 183 | 110 | 293 | 1,517 |
| 17 | Life Sciences | 62 | 202 | 264 | 72 | 183 | 255 | 104 | 184 | 288 | 66 | 173 | 239 | 59 | 183 | 242 | 1,288 |
| 18 | Mining and Earth Sciences | 40 | 112 | 152 | 35 | 112 | 147 | 49 | 106 | 155 | 39 | 185 | 224 | 81 | 230 | 311 | 989 |
|  | Grand total | 19,485 | 27,407 | 46,892 | 18,850 | 26,732 | 45,582 | 17,841 | 27,030 | 44,871 | 19,113 | 28,976 | 48,089 | 18,035 | 28,259 | 46,294 | 231,728 |

Annex 10: Graduation trends by programme cluster in public university institutions 2013-2017


Annex 11: Graduation trends by programme cluster in private university institutions 2013-2017

| SN | Programme Cluster | Year of graduation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2013 |  |  | 2014 |  |  | 2015 |  |  | 2016 |  |  | 2017 |  |  |  |
|  |  | $\begin{aligned} & \stackrel{0}{\mathbb{E}} \\ & \stackrel{\Xi}{\mathbb{W}} \end{aligned}$ | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | $\begin{aligned} & \overline{\text { 틍 }} \end{aligned}$ | $\begin{aligned} & \frac{\mathbb{N}}{\mathbb{N}} \\ & \underset{\sim}{\mathbb{N}} \end{aligned}$ | $\frac{0}{\frac{0}{N}}$ | $\begin{aligned} & \overline{\text { 틍 }} \end{aligned}$ |  | $\frac{0}{\frac{0}{\Sigma}}$ | $\begin{aligned} & \text { 등 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \frac{0}{0} \\ & \stackrel{\rightharpoonup}{0} \\ & \stackrel{N}{4} \end{aligned}$ |  | 등 | $\begin{aligned} & \frac{0}{0} \\ & \stackrel{0}{む} \\ & \stackrel{y}{4} \end{aligned}$ | $\frac{0}{\frac{0}{20}}$ | $\stackrel{\text { 「00 }}{\circ}$ |  |
| 1 | Education | 3,896 | 5,839 | 9,735 | 4,187 | 5,922 | 10,109 | 4,039 | 6,244 | 10,283 | 4,188 | 6,914 | 11,102 | 3,827 | 6,599 | 10,426 | 51,655 |
| 2 | Business | 1,689 | 1,741 | 3,430 | 2,044 | 2,154 | 4,198 | 1,700 | 1,755 | 3,455 | 2,181 | 1,889 | 4,070 | 1,934 | 1,805 | 3,739 | 18,892 |
| 3 | Medicine, Veterinary and Health Sciences | 619 | 653 | 1,272 | 501 | 724 | 1,225 | 808 | 1,177 | 1,985 | 968 | 1,330 | 2,298 | 1,019 | 1,333 | 2,352 | 9,132 |
| 4 | Social Sciences | 1,009 | 1,037 | 2,046 | 783 | 1,097 | 1,880 | 535 | 500 | 1,035 | 601 | 492 | 1,093 | 689 | 641 | 1,330 | 7,384 |
| 5 | Law Journalism Media Studies and | 615 | 839 | 1,454 | 658 | 954 | 1,612 | 566 | 813 | 1,379 | 636 | 766 | 1,402 | 661 | 820 | 1,481 | 7,328 |
| 6 | Communication | 703 | 564 | 1,267 | 601 | 541 | 1,142 | 385 | 309 | 694 | 246 | 211 | 457 | 196 | 172 | 368 | 3,928 |
| 7 | Engineering Information and Communication | 48 | 339 | 387 | 83 | 409 | 492 | 66 | 538 | 604 | 76 | 416 | 492 | 188 | 800 | 988 | 2,963 |
| 8 | Technology | 81 | 344 | 425 | 82 | 350 | 432 | 58 | 172 | 230 | 145 | 494 | 639 | 145 | 423 | 568 | 2,294 |
| 9 | Library, Archive and Museum Studies | 111 | 38 | 149 | 116 | 55 | 171 | 123 | 50 | 173 | 123 | 86 | 209 | 113 | 45 | 158 | 860 |
| 10 | Tourism and Hospitality Studies | 87 | 169 | 256 | 32 | 121 | 153 | 22 | 49 | 71 | 42 | 52 | 94 | 35 | 54 | 89 | 663 |
| 11 | Physical Sciences and Mathematics | 0 | 0 | 0 | 2 | 27 | 29 | 14 | 92 | 106 | 18 | 68 | 86 | 23 | 65 | 88 | 309 |
| 12 | Humanities and Arts Environmental Science or Studies and | 2 | 20 | 22 | 14 | 25 | 39 | 10 | 26 | 36 | 8 | 22 | 30 | 52 | 46 | 98 | 225 |
| 13 | Forestry | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 34 | 59 | 19 | 28 | 47 | 106 |
| 14 | Architecture and Planning | 0 | 0 | 0 | 23 | 32 | 55 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 57 |
| 15 | General | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 8 | 13 | 11 | 2 | 13 | 0 | 0 | 0 | 26 |
| 16 | Agriculture | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | Life Sciences | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | Mining and Earth Sciences | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Grand total | 8,860 | 11,583 | 20,443 | 9,126 | 12,411 | 21,537 | 8,331 | 11,733 | 20,064 | 9,268 | 12,777 | 22,045 | 8,901 | 12,832 | 21,733 | 105,822 |

Annex 12: Bachelor degree graduation trends by programme cluster in university institutions 2013-2017

| SN | Programme Cluster | Year of graduation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2013 |  |  | 2014 |  |  | 2015 |  |  | 2016 |  |  | 2017 |  |  | $\begin{array}{r} \text { Grand } \\ \text { total } \end{array}$ |
|  |  |  | $\frac{0}{\frac{0}{\Sigma}}$ | $\begin{aligned} & \text { 픙 } \\ & \hline \end{aligned}$ |  | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | $\begin{aligned} & \text { 픙 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \frac{0}{\pi} \\ & \stackrel{\text { ® }}{\leftrightarrows} \end{aligned}$ | $\frac{0}{\sum_{\sum}^{\pi}}$ | $\begin{aligned} & \text { 픙 } \\ & \stackrel{1}{2} \end{aligned}$ | $\begin{aligned} & \stackrel{\otimes}{\stackrel{0}{0}} \\ & \stackrel{\rightharpoonup}{\mathbb{0}} \\ & \hline \end{aligned}$ | $\frac{0}{\sum_{\sum}^{\pi}}$ | $\begin{aligned} & \text { 픙 } \\ & \stackrel{1}{2} \end{aligned}$ |  | $\frac{0}{\sum_{\sum}^{\pi}}$ | $\begin{aligned} & \overline{\mathrm{I}} \\ & \stackrel{0}{\circ} \end{aligned}$ |  |
| 1 | Education | 6,183 | 9,132 | 15,315 | 6,445 | 9,036 | 15,481 | 6,258 | 10,593 | 16,851 | 5,825 | 10,605 | 16,430 | 5,442 | 10,807 | 16,249 | 80,326 |
| 2 | Business | 1,886 | 2,648 | 4,534 | 1,986 | 2,698 | 4,684 | 1,650 | 2,210 | 3,860 | 2,311 | 2,672 | 4,983 | 2,155 | 2,453 | 4,608 | 22,669 |
| 3 | Social Sciences | 2,414 | 2,582 | 4,996 | 1,589 | 1,923 | 3,512 | 1,186 | 1,264 | 2,450 | 1,095 | 1,161 | 2,256 | 1,157 | 1,247 | 2,404 | 15,618 |
| 4 | Law | 763 | 1,166 | 1,929 | 820 | 1,249 | 2,069 | 652 | 1,061 | 1,713 | 572 | 877 | 1,449 | 656 | 866 | 1,522 | 8,682 |
| 5 | Engineering | 131 | 986 | 1,117 | 200 | 1,270 | 1,470 | 189 | 1,340 | 1,529 | 273 | 1,491 | 1,764 | 422 | 2,035 | 2,457 | 8,337 |
| 6 | Medicine, Veterinary and Health Sciences | 549 | 728 | 1,277 | 498 | 836 | 1,334 | 628 | 826 | 1,454 | 776 | 1,135 | 1,911 | 721 | 1,158 | 1,879 | 7,855 |
| 7 | Journalism Media Studies and Communication | 683 | 527 | 1,210 | 665 | 556 | 1,221 | 431 | 357 | 788 | 282 | 228 | 510 | 254 | 204 | 458 | 4,187 |
| 8 | Agriculture | 180 | 386 | 566 | 170 | 255 | 425 | 157 | 452 | 609 | 180 | 401 | 581 | 321 | 566 | 887 | 3,068 |
| 9 | Environmental Science or Studies and Forestry | 149 | 376 | 525 | 175 | 302 | 477 | 125 | 240 | 365 | 216 | 346 | 562 | 214 | 374 | 588 | 2,517 |
| 10 | Information and Communication Technology | 95 | 393 | 488 | 122 | 397 | 519 | 69 | 207 | 276 | 148 | 415 | 563 | 101 | 305 | 406 | 2,252 |
| 11 | Tourism and Hospitality Studies | 270 | 372 | 642 | 131 | 320 | 451 | 103 | 156 | 259 | 87 | 131 | 218 | 98 | 138 | 236 | 1,806 |
| 12 | Humanities and Arts | 299 | 375 | 674 | 120 | 273 | 393 | 107 | 185 | 292 | 61 | 111 | 172 | 122 | 100 | 222 | 1,753 |
| 13 | Physical Sciences and Mathematics | 30 | 127 | 157 | 74 | 262 | 336 | 56 | 306 | 362 | 68 | 237 | 305 | 113 | 342 | 455 | 1,615 |
| 14 | Architecture and Planning | 59 | 198 | 257 | 73 | 246 | 319 | 115 | 246 | 361 | 99 | 251 | 350 | 128 | 194 | 322 | 1,609 |
| 15 | Life Sciences | 57 | 178 | 235 | 54 | 155 | 209 | 86 | 146 | 232 | 51 | 115 | 166 | 43 | 134 | 177 | 1,019 |
| 16 | Mining and Earth Sciences | 34 | 89 | 123 | 34 | 111 | 145 | 49 | 106 | 155 | 38 | 171 | 209 | 75 | 215 | 290 | 922 |
| 17 | General | 18 | 45 | 63 | 21 | 30 | 51 | 9 | 17 | 26 | 10 | 25 | 35 | 6 | 6 | 12 | 187 |
| 18 | Library, Archive and Museum Studies |  |  |  | 41 | 22 | 63 | 0 | 0 |  | 21 | 14 | 35 | 44 | 44 | 88 | 186 |
|  | Grand total | 13,800 | 20,308 | 34,108 | 13,218 | 19,941 | 33,159 | 11,870 | 19,712 | 31,582 | 12,113 | 20,386 | 32,499 | 12,072 | 21,188 | 33,260 | 164,608 |

Annex 13：Master degree graduation trends by programme cluster in university institutions 2013－2017

|  |  | Year of graduation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2013 |  |  | 2014 |  |  | 2015 |  |  | 2016 |  |  | 2017 |  |  |
| SN | Programme Cluster |  | $\frac{0}{\sum_{0}^{01}}$ | $\begin{aligned} & \overline{\bar{\circ}} \\ & \stackrel{\circ}{\circ} \end{aligned}$ |  | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | $\begin{aligned} & \overline{\bar{\circ}} \\ & \stackrel{\circ}{\circ} \end{aligned}$ |  | $\frac{0}{\sum_{N}^{N}}$ | $\stackrel{\bar{\Pi} \circ}{\stackrel{\circ}{\circ}}$ |  | $\frac{\otimes}{\frac{0}{\Sigma}}$ | $\begin{aligned} & \text { ⿳亠口厂彡ㅇ } \\ & \stackrel{1}{2} \end{aligned}$ |  | $\frac{\otimes}{\frac{0}{\Sigma}}$ | $\begin{aligned} & \text { 픈 } \\ & \hline \end{aligned}$ | Grand total |
| 1 | Business | 794 | 1，301 | 2，095 | 791 | 1，152 | 1，943 | 994 | 1，291 | 2，285 | 861 | 927 | 1，788 | 763 | 814 | 1，577 | 9，688 |
| 2 | Education | 121 | 205 | 326 | 241 | 344 | 585 | 237 | 389 | 626 | 523 | 720 | 1，243 | 523 | 736 | 1，259 | 4，039 |
| 3 | Social Sciences | 284 | 457 | 741 | 330 | 396 | 726 | 326 | 521 | 847 | 308 | 468 | 776 | 266 | 442 | 708 | 3，798 |
| 4 | Medicine，Veterinary and Health Sciences | 193 | 307 | 500 | 181 | 318 | 499 | 251 | 412 | 663 | 250 | 274 | 524 | 256 | 339 | 595 | 2，781 |
| 5 | Law | 88 | 169 | 257 | 121 | 206 | 327 | 166 | 169 | 335 | 121 | 157 | 278 | 120 | 155 | 275 | 1，472 |
| 6 | Humanities and Arts | 101 | 183 | 284 | 52 | 91 | 143 | 56 | 119 | 175 | 60 | 75 | 135 | 42 | 66 | 108 | 845 |
| 7 | Environmental Science or Studies and Forestry | 51 | 110 | 161 | 34 | 84 | 118 | 62 | 115 | 177 | 61 | 94 | 155 | 27 | 55 | 82 | 693 |
| 8 | Engineering | 20 | 94 | 114 | 31 | 117 | 148 | 15 | 51 | 66 | 28 | 95 | 123 | 17 | 71 | 88 | 539 |
| 9 | Agriculture | 43 | 106 | 149 | 33 | 79 | 112 | 30 | 48 | 78 | 15 | 50 | 65 | 40 | 34 | 74 | 478 |
| 10 | Architecture and Planning | 27 | 73 | 100 | 16 | 21 | 37 | 0 | 8 | 8 | 32 | 58 | 90 | 29 | 48 | 77 | 312 |
| 11 | Information and Communication Technology | 17 | 32 | 49 | 13 | 46 | 59 | 5 | 9 | 14 | 28 | 66 | 94 | 14 | 45 | 59 | 275 |
| 12 | Life Sciences | 5 | 24 | 29 | 18 | 28 | 46 | 18 | 34 | 52 | 11 | 42 | 53 | 10 | 24 | 34 | 214 |
| 13 | Library，Archive and Museum Studies |  | 0 |  | 3 | 4 | 7 | 38 | 23 | 61 | 34 | 29 | 63 | 51 | 26 | 77 | 208 |
| 14 | Physical Sciences and Mathematics | 3 | 4 | 7 | 12 | 38 | 50 | 15 | 34 | 49 | 3 | 37 | 40 | 13 | 41 | 54 | 200 |
| 15 | Journalism Media Studies and Communication | 19 | 31 | 50 | 18 | 15 | 33 | 11 | 17 | 28 | 23 | 22 | 45 | 17 | 9 | 26 | 182 |
| 16 | General | 29 | 55 | 84 |  |  |  | 5 | 11 | 16 | 13 | 10 | 23 |  | 1 | 1 | 124 |
| 17 | Tourism and Hospitality Studies | 1 | 16 | 17 |  | 2 | 2 | 2 | 24 | 26 |  | 2 | 2 | 4 | 8 | 12 | 59 |
| 18 | Mining and Earth Sciences | 6 | 22 | 28 | 1 | 1 | 2 |  | 0 |  |  | 1 | 1 | 6 | 6 | 12 | 43 |
|  | Grand total | 1，802 | 3，189 | 4，991 | 1，895 | 2，942 | 4，837 | 2，231 | 3，275 | 5，506 | 2，371 | 3，127 | 5，498 | 2，198 | 2，920 | 5，118 | 25，950 |

Annex 14: Doctorate degree graduation trends by programme cluster in university institutions 2013-2017

|  |  | Year of graduation |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Grand <br> Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2013 |  |  | 2014 |  |  | 2015 |  |  | 2016 |  |  | 2017 |  |  |  |
| SN | Programme Cluster | $\begin{aligned} & \frac{0}{0_{0}^{0}} \\ & \stackrel{\Gamma}{\mathbb{N}} \end{aligned}$ | $\frac{0}{\sum_{\sum}^{01}}$ | $\begin{aligned} & \text { 퓽 } \\ & \hline \end{aligned}$ |  | $\frac{0}{\sum_{\sum}^{\pi}}$ | $\begin{aligned} & \text { 등 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \frac{0}{\mathbb{N}} \\ & \underset{\sim}{\mathbb{N}} \\ & \hline \end{aligned}$ | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | $\begin{aligned} & \text { 듕 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \frac{0}{0_{0}} \\ & \stackrel{\Gamma}{\mathbb{N}} \\ & \hline \end{aligned}$ | $\frac{0}{\sum_{\sum}^{N}}$ | ㄷ্তㅇ | $\begin{aligned} & \frac{0}{\mathbb{N}} \\ & \stackrel{\text { T}}{\mathbb{N}} \\ & \hline \end{aligned}$ | $\frac{0}{\sum_{\sum}^{\pi}}$ | $\begin{aligned} & \text { 픙 } \\ & \hline \end{aligned}$ |  |
| 1 | Business | 1 | 8 | 9 | 5 | 34 | 39 | 13 | 37 | 50 | 15 | 54 | 69 | 18 | 39 | 57 | 224 |
| 2 | Social Sciences | 6 | 36 | 42 | 21 | 46 | 67 | 5 | 18 | 23 | 5 | 15 | 20 | 9 | 16 | 25 | 177 |
| 3 | General | 9 | 26 | 35 |  | 26 | 26 | 12 | 36 | 48 | 4 | 22 | 26 | 7 | 13 | 20 | 155 |
| 4 | Engineering |  |  |  | 3 | 4 | 7 | 1 | 6 | 7 | 3 | 11 | 14 | 4 | 21 | 25 | 53 |
| 5 | Medicine, Veterinary and Health Sciences |  |  |  | 5 | 2 | 7 | 2 | 2 | 4 | 4 | 4 | 8 | 4 | 4 | 8 | 27 |
| 6 | Education |  |  |  |  |  |  | 1 | 2 | 3 | 3 | 7 | 10 | 6 | 4 | 10 | 23 |
| 7 | Humanities and Arts |  |  |  |  |  |  | 1 | 5 | 6 | 1 | 3 | 4 | 1 | 11 | 12 | 22 |
| 8 | Physical Sciences and Mathematics |  |  |  |  |  |  | 2 | 6 | 8 | 1 | 2 | 3 | 1 | 3 | 4 | 15 |
| 9 | Law |  |  |  |  |  |  | 1 | 7 | 8 |  | 3 | 3 | 1 | 2 | 3 | 14 |
| 10 | Agriculture |  |  |  |  |  |  | 2 | 1 | 3 | 2 | 5 | 7 |  | 3 | 3 | 13 |
| 11 | Life Sciences |  |  |  |  |  |  | 0 | 4 | 4 | 2 | 2 | 4 |  | 4 | 4 | 12 |
| 12 | Environmental Science or Studies and Forestry |  |  |  |  |  |  | 0 | 2 | 2 |  | 2 | 2 | 2 | 5 | 7 | 11 |
| 13 | Library, Archive and Museum Studies |  |  |  |  |  |  | 1 |  | 1 | 1 | 5 | 6 |  | 4 | 4 | 11 |
| 14 | Architecture and Planning |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 | 1 | 1 |
| 15 | Mining and Earth Sciences |  |  |  |  |  |  |  |  |  |  | 1 | 1 |  |  |  | 1 |
| 16 | Tourism and Hospitality Studies |  |  |  |  |  |  |  |  |  |  | 1 | 1 |  |  |  | 1 |
| 17 | Information and Communication Technology |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18 | Journalism Media Studies and Communication |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Grand total | 16 | 70 | 86 | 34 | 112 | 146 | 41 | 126 | 167 | 41 | 137 | 178 | 53 | 130 | 183 | 760 |

Annex 15: Graduation trends by programme cluster in Full-Fledged Universities 2013-2017

| SN Programme Clustor |  | Year of graduation |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Grand total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2013 |  |  | 2014 |  |  | 2015 |  |  | 2016 |  |  | 2017 |  |  |  |
|  |  |  | $\frac{\mathbb{O}}{\frac{0}{N}}$ | $\begin{aligned} & \text { 등 } \\ & \hline \end{aligned}$ |  | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | $\begin{aligned} & \text { 듕 } \\ & \hline \end{aligned}$ |  | $\frac{\otimes}{\sum_{N}^{N}}$ | $\stackrel{\text { 픙 }}{\square}$ |  | $\frac{0}{\sum_{\sum}^{\pi}}$ | $\begin{aligned} & \overline{\boxed{\circ}} \\ & \stackrel{0}{2} \end{aligned}$ |  | $\frac{\mathbb{0}}{\frac{\pi}{\Sigma}}$ | $\begin{aligned} & \overline{\mathrm{I}} \\ & \stackrel{1}{\circ} \end{aligned}$ |  |
| 1 | Education | 5,453 | 7,261 | 12,714 | 5,918 | 7,265 | 13,183 | 5,528 | 7,989 | 13,517 | 5,386 | 8,132 | 13,518 | 4,615 | 8,031 | 12,646 | 65,578 |
| 2 | Business | 2,834 | 3,865 | 6,699 | 3,129 | 3,959 | 7,088 | 2,418 | 3,177 | 5,595 | 2,983 | 3,407 | 6,390 | 2,927 | 3,157 | 6,084 | 31,856 |
| 3 | Social Sciences | 2,684 | 2,990 | 5,674 | 1,983 | 2,277 | 4,260 | 1,556 | 1,704 | 3,260 | 1,443 | 1,574 | 3,017 | 1,568 | 1,688 | 3,256 | 19,467 |
| 4 | Medicine, Veterinary and Health Sciences | 803 | 1,124 | 1,927 | 751 | 1,305 | 2,056 | 1,158 | 1,720 | 2,878 | 1,456 | 2,104 | 3,560 | 1,490 | 2,129 | 3,619 | 14,040 |
| 5 | Law | 839 | 1,269 | 2,108 | 941 | 1,423 | 2,364 | 836 | 1,298 | 2,134 | 747 | 1,098 | 1,845 | 820 | 1,064 | 1,884 | 10,335 |
| 6 | General | 1,335 | 1,419 | 2,754 | 414 | 584 | 998 | 481 | 666 | 1,147 | 724 | 1,206 | 1,930 | 13 | 20 | 33 | 6,862 |
| 7 | Engineering | 116 | 836 | 952 | 160 | 1,058 | 1,218 | 154 | 961 | 1,115 | 246 | 1,270 | 1,516 | 272 | 1,425 | 1,697 | 6,498 |
| 8 | Information and Communication Technology | 190 | 673 | 863 | 242 | 763 | 1,005 | 158 | 458 | 616 | 324 | 835 | 1,159 | 214 | 621 | 835 | 4,478 |
| 9 | Journalism Media Studies and Communication | 737 | 595 | 1,332 | 683 | 582 | 1,265 | 445 | 362 | 807 | 291 | 233 | 524 | 279 | 203 | 482 | 4,410 |
| 10 | Environmental Science or Studies and Forestry | 235 | 543 | 778 | 250 | 449 | 699 | 221 | 428 | 649 | 321 | 521 | 842 | 270 | 484 | 754 | 3,722 |
| 11 | Agriculture | 223 | 494 | 717 | 203 | 334 | 537 | 189 | 501 | 690 | 197 | 456 | 653 | 361 | 603 | 964 | 3,561 |
| 12 | Humanities and Arts | 400 | 558 | 958 | 172 | 364 | 536 | 164 | 309 | 473 | 122 | 189 | 311 | 165 | 177 | 342 | 2,620 |
| 13 | Architecture and Planning | 87 | 277 | 364 | 112 | 299 | 411 | 115 | 254 | 369 | 131 | 310 | 441 | 157 | 244 | 401 | 1,986 |
| 14 | Tourism and Hospitality Studies | 267 | 376 | 643 | 128 | 301 | 429 | 100 | 160 | 260 | 139 | 172 | 311 | 120 | 153 | 273 | 1,916 |
| 15 | Physical Sciences and Mathematics | 37 | 135 | 172 | 88 | 310 | 398 | 79 | 350 | 429 | 72 | 276 | 348 | 129 | 387 | 516 | 1,863 |
| 16 | Life Sciences | 62 | 202 | 264 | 72 | 183 | 255 | 104 | 184 | 288 | 66 | 173 | 239 | 59 | 183 | 242 | 1,288 |
| 17 | Library, Archive and Museum Studies | 109 | 27 | 136 | 152 | 53 | 205 | 158 | 56 | 214 | 206 | 100 | 306 | 124 | 80 | 204 | 1,065 |
| 18 | Mining and Earth Sciences | 40 | 112 | 152 | 35 | 112 | 147 | 49 | 106 | 155 | 39 | 185 | 224 | 81 | 230 | 311 | 989 |
|  | Grand total | 16,451 | 22,756 | 39,207 | 15,433 | 21,621 | 37,054 | 13,913 | 20,683 | 34,596 | 14,893 | 22,241 | 37,134 | 13,664 | 20,879 | 34,543 | 182,534 |

Annex 16: Graduation trends by programme cluster in University Colleges 2013-2017

| SN | Programme Cluster | Year of graduation |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{gathered} \text { Grand } \\ \text { total } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2013 |  |  | 2014 |  |  | 2015 |  |  | 2016 |  |  | 2017 |  |  |  |
|  |  | $\begin{aligned} & \frac{\mathbb{D}}{\stackrel{0}{0}} \\ & \stackrel{y}{\mathbb{N}} \end{aligned}$ | $\frac{0}{\frac{0}{\Sigma}}$ | $\begin{aligned} & \text { 픙 } \\ & \stackrel{y}{\circ} \end{aligned}$ |  | $\frac{0}{\frac{0}{\Sigma}}$ | $\begin{aligned} & \text { 픙 } \\ & \stackrel{1}{2} \end{aligned}$ |  | $\frac{0}{\frac{0}{\Sigma}}$ | $\begin{aligned} & \text { 등 } \\ & \vdash \end{aligned}$ |  | $\frac{0}{\frac{0}{\Sigma}}$ | $\begin{aligned} & \text { 長 } \\ & \vdash \end{aligned}$ |  | $\frac{0}{\frac{0}{\Sigma}}$ | $\stackrel{\text { 픙 }}{\stackrel{1}{2}}$ |  |
| 1 | Education | 1,467 | 2,505 | 3,972 | 1,446 | 2,627 | 4,073 | 1,656 | 3,489 | 5,145 | 1,739 | 3,777 | 5,516 | 1,796 | 3,664 | 5,460 | 24,166 |
| 2 | Business | 236 | 210 | 446 | 335 | 359 | 694 | 526 | 547 | 1,073 | 588 | 475 | 1,063 | 378 | 364 | 742 | 4,018 |
| 3 | Engineering | 39 | 289 | 328 | 74 | 341 | 415 | 52 | 455 | 507 | 58 | 340 | 398 | 175 | 713 | 888 | 2,536 |
| 4 | Medicine, Veterinary and Health Sciences | 113 | 163 | 276 | 154 | 205 | 359 | 144 | 241 | 385 | 157 | 337 | 494 | 216 | 392 | 608 | 2,122 |
| 5 | Law | 109 | 149 | 258 | 104 | 141 | 245 | 105 | 113 | 218 | 152 | 201 | 353 | 157 | 238 | 395 | 1,469 |
| 6 | Social Sciences | 57 | 138 | 195 | 96 | 198 | 294 | 104 | 174 | 278 | 170 | 198 | 368 | 89 | 190 | 279 | 1,414 |
| 7 | Library, Archive and Museum Studies | 42 | 19 | 61 | 61 | 34 | 95 | 67 | 30 | 97 | 63 | 47 | 110 | 59 | 30 | 89 | 452 |
| 8 | Journalism Media Studies and Communication | 62 | 44 | 106 | 47 | 34 | 81 | 22 | 29 | 51 | 48 | 45 | 93 | 25 | 38 | 63 | 394 |
| 9 | Information and Communication Technology | 2 | 22 | 24 | 2 | 17 | 19 | 13 | 24 | 37 | 36 | 95 | 131 | 36 | 83 | 119 | 330 |
| 10 | Tourism and Hospitality Studies | 4 | 12 | 16 | 6 | 21 | 27 | 13 | 23 | 36 | 10 | 20 | 30 | 2 | 6 | 8 | 117 |
| 11 | General |  |  |  |  |  |  | 5 | 8 | 13 | 11 | 2 | 13 |  |  |  | 26 |
| 12 | Agriculture |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 | Architecture and Planning |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 | Environmental Science or Studies and Forestry |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 | Humanities and Arts |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | Life Sciences |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17 | Mining and Earth Sciences |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18 | Physical Sciences and Mathematics |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Grand total | 2,131 | 3,551 | 5,682 | 2,325 | 3,977 | 6,302 | 2,707 | 5,133 | 7,840 | 3,032 | 5,537 | 8,569 | 2,933 | 5,718 | 8,651 | 37,044 |

Annex 17: Graduation trends by programme cluster in University Campuses, Centres and Institutes 2013-2017

| SN | Programme Cluster | Year of graduation |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Grand total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2013 |  |  | 2014 |  |  | 2015 |  |  | 2016 |  |  | 2017 |  |  |  |
|  |  |  | $\frac{0}{\sqrt[N]{N}}$ | $\stackrel{\text { 등 }}{\leftarrow}$ |  | $\frac{0}{\sqrt[N]{N}}$ | $\stackrel{\text { 등 }}{\stackrel{1}{2}}$ |  | $\frac{0}{\sqrt[N]{N}}$ | $\begin{aligned} & \overline{\text { 핑 }} \\ & \hline \end{aligned}$ |  | $\frac{\mathbb{0}}{\sum_{2}^{\pi}}$ | $\begin{aligned} & \overline{\bar{\circ}} \mathrm{O} \\ & \stackrel{0}{2} \end{aligned}$ | $\begin{aligned} & \frac{0}{\omega} \\ & \stackrel{0}{\mathbb{0}} \\ & \stackrel{\rightharpoonup}{4} \end{aligned}$ | $\frac{0}{\sum_{0}^{\pi}}$ | $\stackrel{\text { ¢0, }}{\square}$ |  |
| 1 | Business | 694 | 889 | 1,583 | 809 | 801 | 1,610 | 775 | 787 | 1,562 | 675 | 623 | 1,298 | 703 | 677 | 1,380 | 7,433 |
| 2 | Law | 99 | 133 | 232 | 153 | 200 | 353 | 284 | 282 | 566 | 223 | 213 | 436 | 218 | 231 | 449 | 2,036 |
| 3 | Education |  |  |  | 12 | 33 | 45 | 58 | 77 | 135 | 178 | 239 | 417 | 358 | 583 | 941 | 1,538 |
| 4 | Social Sciences | 110 | 73 | 183 | 114 | 71 | 185 | 104 | 57 | 161 | 91 | 61 | 152 | 135 | 86 | 221 | 902 |
| 5 | Information and Communication Technology |  | 5 | 5 | 4 | 29 | 33 |  | 11 | 11 | 21 | 62 | 83 | 21 | 78 | 99 | 231 |
| 6 | Tourism and Hospitality Studies |  |  |  |  |  |  |  |  |  |  |  |  | 3 | 7 | 10 | 10 |
| 7 | Agriculture |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 | Architecture and Planning |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 | Engineering |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 | Environmental Science or Studies and Forestry |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | General |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | Humanities and Arts |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 | Journalism Media Studies and Communication |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 | Library, Archive and Museum Studies |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 | Life Sciences |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | Medicine, Veterinary and Health Sciences |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17 | Mining and Earth Sciences |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18 | Physical Sciences and Mathematics |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Grand total | 903 | 1,100 | 2,003 | 1,092 | 1,134 | 2,226 | 1,221 | 1,214 | 2,435 | 1,188 | 1,198 | 2,386 | 1,438 | 1,662 | 3,100 | 12,150 |

Annex 18: Dropout trend by programme cluster and award level in university institutions

|  |  | Award level |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Certificate |  |  | Diploma |  |  | Bachelor Degree |  |  | Postgraduate Diploma |  |  | Master Degree |  |  | Doctorate Degree |  |  |  |
| SN | Programme cluster |  | $\frac{0}{\sum_{\sum}^{\pi}}$ | $\begin{aligned} & \overline{\boxed{\circ}} \\ & \stackrel{1}{\circ} \end{aligned}$ |  | $\frac{0}{\sum_{2}^{01}}$ | $\begin{gathered} \overline{\boxed{0}} \\ \stackrel{0}{\circ} \end{gathered}$ | $\frac{0}{0}$ $\stackrel{\text { ¢ }}{ \pm}$ L | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | $\begin{aligned} & \overline{\mathrm{I}} \\ & \stackrel{0}{\circ} \end{aligned}$ | $\frac{0}{\mathbb{O}}$ $\stackrel{\text { ¢ }}{\sim}$ L | $\frac{0}{\sum_{\sum}^{N 0}}$ | $\begin{aligned} & \overline{\mathrm{I}} \\ & \stackrel{0}{\circ} \end{aligned}$ | O $\stackrel{0}{0}$ $\stackrel{\text { ¢ }}{\sim}$ | $\frac{0}{\sum_{\Sigma}^{\pi}}$ | $\begin{aligned} & \overline{\boxed{\circ}} \\ & \stackrel{0}{\circ} \end{aligned}$ | $\stackrel{\text { ® }}{\text { ® }}$ $\stackrel{\text { ¢ }}{\text { ¢ }}$ | $\frac{0}{\sum_{2}^{01}}$ | $\begin{aligned} & \text { 퓽 } \\ & \hline \end{aligned}$ |  |
| 1 | Agriculture |  |  |  | 2 | 9 | 11 | 30 | 53 | 83 |  |  |  | 2 |  | 2 |  |  |  | 96 |
| 2 | Architecture and Planning |  |  |  |  |  |  | 37 | 114 | 151 |  |  |  |  |  |  |  |  |  | 151 |
| 3 | Business | 26 | 33 | 59 | 10 | 22 | 32 | 155 | 353 | 508 |  |  |  | 213 | 343 | 556 |  |  |  | 1,155 |
| 4 | Education | 3 | 1 | 4 | 60 | 34 | 94 | 864 | 2,250 | 3,114 | 5 | 12 | 17 | 12 | 22 | 34 |  |  |  | 3,263 |
| 5 | Engineering |  |  |  |  | 7 | 7 | 41 | 393 | 434 | 2 | 30 | 32 | 6 | 72 | 78 | 3 | 6 | 9 | 560 |
| 6 | Environmental Science or Studies and Forestry |  | 1 | 1 |  |  |  | 20 | 52 | 72 |  |  |  |  | 1 | 1 | 1 | 2 | 3 | 77 |
| 7 | General | 6 | 7 | 13 |  | 6 | 6 | 12 | 18 | 30 |  | 2 | 2 | 2 | 22 | 24 | 2 | 4 | 6 | 81 |
| 8 | Humanities and Arts |  |  |  |  |  |  | 78 | 136 | 214 |  |  |  | 3 | 6 | 9 | 1 |  | 1 | 224 |
| 9 | Information and Communication Technology | 16 | 17 | 33 | 9 | 23 | 32 | 73 | 365 | 438 | 2 | 13 | 15 | 4 | 23 | 27 |  |  |  | 545 |
| 10 | Journalism Media Studies and Communication |  | 2 | 2 |  |  |  | 22 | 25 | 47 |  |  |  |  | 1 | 1 |  |  |  | 50 |
| 11 | Law | 7 | 6 | 13 | 8 | 10 | 18 | 157 | 284 | 441 |  | 4 | 4 | 10 | 20 | 30 |  |  |  | 506 |
| 12 | Library, Archive and Museum Studies | 2 | 2 | 4 | 3 | 1 | 4 |  |  |  |  |  |  |  |  |  |  |  |  | 8 |
| 13 | Life Sciences |  |  |  |  |  |  | 6 | 34 | 40 |  |  |  |  |  |  |  |  |  | 40 |
| 14 | Medicine, Veterinary and Health Sciences | 11 | 35 | 46 | 42 | 128 | 170 | 170 | 412 | 582 |  |  |  | 6 | 16 | 22 |  |  |  | 820 |
| 15 | Mining and Earth Sciences |  |  |  |  | 1 | 1 | 9 | 77 | 86 |  |  |  | 2 | 3 | 5 |  |  |  | 92 |
| 16 | Physical Sciences and Mathematics |  |  |  |  |  |  | 17 | 124 | 141 |  |  |  | 3 | 10 | 13 |  | 2 | 2 | 156 |
| 17 | Social Sciences | 7 | 4 | 11 | 4 | 5 | 9 | 172 | 395 | 567 |  |  |  | 51 | 59 | 110 |  | 1 | 1 | 698 |
| 18 | Tourism and Hospitality studies |  |  |  | 1 |  | 1 | 13 | 36 | 49 |  |  |  |  |  |  |  |  |  | 50 |
|  | Grand total | 78 | 108 | 186 | 139 | 246 | 385 | 1,876 | 5,121 | 6,997 | 9 | 61 | 70 | 314 | 598 | 912 | 7 | 15 | 22 | 8,572 |

Annex 19: Dropout trend by programme cluster and type of institution between 2012/2013 and 2017/2018

| SN | Programme Cluster | Type of institution |  |  |  |  |  |  |  |  | Grand total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fully Fledged Universities |  |  | University College |  |  | University Campuses, Centres and Institutes |  |  |  |
|  |  | Female | Male | Total | Female | Male | Total | Female | Male | Total |  |
| 1 | Agriculture | 34 | 62 | 96 |  |  |  |  |  |  | 96 |
| 2 | Architecture and Planning | 37 | 114 | 151 |  |  |  |  |  |  | 151 |
| 3 | Business | 178 | 353 | 531 | 57 | 119 | 176 | 169 | 279 | 448 | 1,155 |
| 4 | Education | 763 | 1,597 | 2,360 | 164 | 665 | 829 | 17 | 57 | 74 | 3,263 |
| 5 | Engineering | 38 | 399 | 437 | 14 | 109 | 123 |  |  |  | 560 |
| 6 | Environmental Science or Studies and Forestry | 21 | 56 | 77 |  |  |  |  |  |  | 77 |
| 7 | General | 21 | 52 | 73 | 1 | 7 | 8 |  |  |  | 81 |
| 8 | Humanities and Arts | 82 | 140 | 222 | 0 | 2 | 2 |  |  |  | 224 |
| 9 | Information and Communication Technology | 100 | 426 | 526 | 4 | 11 | 15 |  | 4 | 4 | 545 |
| 10 | Journalism Media Studies and Communication | 5 | 5 | 10 | 17 | 23 | 40 |  |  |  | 50 |
| 11 | Law | 141 | 267 | 408 | 26 | 43 | 69 | 15 | 14 | 29 | 506 |
| 12 | Library, Archive and Museum Studies | 3 | 2 | 5 | 1 |  | 1 | 1 | 1 | 2 | 8 |
| 13 | Life Sciences | 6 | 34 | 40 |  |  |  |  |  |  | 40 |
| 14 | Medicine, Veterinary and Health Sciences | 212 | 512 | 724 | 17 | 79 | 96 |  |  |  | 820 |
| 15 | Mining and Earth Sciences | 11 | 81 | 92 |  |  |  |  |  |  | 92 |
| 16 | Physical Sciences and Mathematics | 20 | 136 | 156 |  |  |  |  |  |  | 156 |
| 17 | Social Sciences | 188 | 414 | 602 | 5 | 28 | 33 | 41 | 22 | 63 | 698 |
| 18 | Tourism and Hospitality studies | 14 | 32 | 46 |  | 4 | 4 |  |  |  | 50 |
|  | Grand total | 1,874 | 4,682 | 6,556 | 306 | 1,090 | 1,396 | 243 | 377 | 620 | 8,572 |

Annex 20: Reasons for termination of studies by award level between 2012/2013 and 2017/2018


Annex 21: Students' enrolment in Bachelor degree in non-university institutions 2017/2018

| SN | Name of Non-University institution | Bachelor Degree |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Female | Male | Total |
| 1 | Arusha Technical College | 68 | 276 | 344 |
| 2 | Centre for Foreign Relations | - | - | - |
| 3 | College of African Wildlife Management, Mweka | 94 | 221 | 315 |
| 4 | College of Business Education - Dar es Salaam | 1,137 | 1,301 | 2,438 |
| 5 | College of Business Education - Mwanza Campus | 106 | 135 | 241 |
| 6 | College of Business Education Dodoma | 353 | 328 | 681 |
| 7 | Dar es Salaam Institute of Technology | 255 | 1,327 | 1,582 |
| 8 | Dar es salaam Maritime Institute | 15 | 137 | 152 |
| 9 | Eastern Africa Statistical Training Centre | 37 | 77 | 114 |
| 10 | Institute of Tax Administration | 185 | 336 | 521 |
| 11 | Institute of Adult Education | 334 | 202 | 536 |
| 12 | Institute of Finance Management | 2,803 | 3,618 | 6,421 |
| 13 | institute of Finance Management-Dodoma | - | - | - |
| 14 | Institute of Finance Management-Mwanza | 81 | 71 | 152 |
| 15 | Institute of Public Administration | 50 | 32 | 82 |
| 16 | Institute of Rural Development Planning | 949 | 1,202 | 2,151 |
| 17 | Institute of Rural Development Planning - Mwanza | 26 | 48 | 74 |
| 18 | Institute of Social Work | 785 | 408 | 1,193 |
| 19 | Institute of Accountancy Arusha | 648 | 693 | 1,341 |
| 20 | Karume Institute of Science and Technology | 1 | 13 | 14 |
| 21 | MS Training Centre for Development Cooperation | 14 | 26 | 40 |
| 22 | Mwalimu Nyerere Memorial Academy-Dar es Salaam | 1,239 | 1,536 | 2,775 |
| 23 | Mwalimu Nyerere Memorial Academy-Zanzibar | 163 | 199 | 362 |
| 24 | National Institute of Transport | 1,249 | 3,355 | 4,604 |
| 25 | Tanzania Institute of Accountancy - Dar es Salaam | 2,640 | 2,421 | 5,061 |
| 26 | Tanzania Institute of Accountancy - Mbeya | 672 | 785 | 1,457 |
| 27 | Tanzania Institute of Accountancy - Mwanza | 90 | 82 | 172 |
| 28 | Tanzania Institute of Accountancy - Singida | 125 | 176 | 301 |
| 29 | Tanzania Public Service College | 85 | 38 | 123 |
| 30 | Tengeru Institute of Community Development | 363 | 271 | 634 |
| 31 | Unique Academy Dar es Salaam | 22 | 164 | 186 |
| 32 | Water Institute | 41 | 128 | 169 |
|  | Grand total | 14,630 | 19,606 | 34,236 |

## Annex 22: List of quality assurance tools

In order to ensure quality of education, the following tools have been developed by TCU and are in use:

| SN | Name of quality assurance tool |  |
| :---: | :--- | :--- |
| 1 | $\checkmark$ | University Qualifications Framework (UQF) |
| 2 | $\checkmark$ | Minimum Guidelines and Norms for University Governance |
| 3 | $\checkmark$ | Units |
| 4 | $\checkmark$ | Minimum Guidelines for Employment, Staff Performance |
|  | $\checkmark$ | Minimum Guidelines for the Harmonization of Awards <br> offered in Tanzania |
| 5 | $\checkmark$ | Minimum Standards for Postgraduate Training |
| 6 | $\checkmark$ | Credit Accumulation and Transfer General Guidelines |

SN Name of quality assurance tool
$2 \checkmark$ Minimum Guidelines and Norms for University Governance Units
$\checkmark$ Minimum Guidelines for Employment, Staff Performance Review and Career Development
$\checkmark$ Credit Accumulation and Transfer General Guidelines


[^0]:    ${ }^{1}$ One of the Government's decision that was made in the 1990s was to liberalize the establishment, ownership and management of higher education institutions in the country. This decision resulted into expansion of opportunities for higher education, hence increasing the number of students' enrollment in university institutions in the country.

[^1]:    ${ }^{2}$ There is a plethora of evidence on this fact. See for example, The Future Climate for Africa report of 2016, Africa's climate: Helping decision-makers make sense of climate information pg. 2, states that "African decision-makers need reliable, accessible, and trustworthy information about the continent's climate, and how this climate might change in future, if they are to plan appropriately to meet the region's development challenge"

[^2]:    ${ }^{3}$ The University College Dar es Salaam was established in 1961 as an affiliate College of the University of London.

[^3]:    ${ }^{4}$ Prior to the current status, some institutions underwent through various stages including as constituent colleges while some began as full-fledged universities. The same applies to private Universities.

[^4]:    ${ }^{5}$ Campus College of the University of Dar es Salaam

[^5]:    ${ }^{6}$ The GoT recognizes that education is a basic need for all. GoT (2000). The Education Sector Development Programme Document. Available at http://www.tzonline.org/pdf/theeducationsectordevelopmentprogramme.pdf.

[^6]:    7 Black, S.A (2015). Qualities of effective leadership in higher education. Open Journal of Leadership, Vol.4, pp. 54-66.

[^7]:    ${ }^{8}$ Note: Level of education of teaching staff in university institutions ranges from bachelor to PhD only

[^8]:    * Team members should collect Copies of documents listed in this section

