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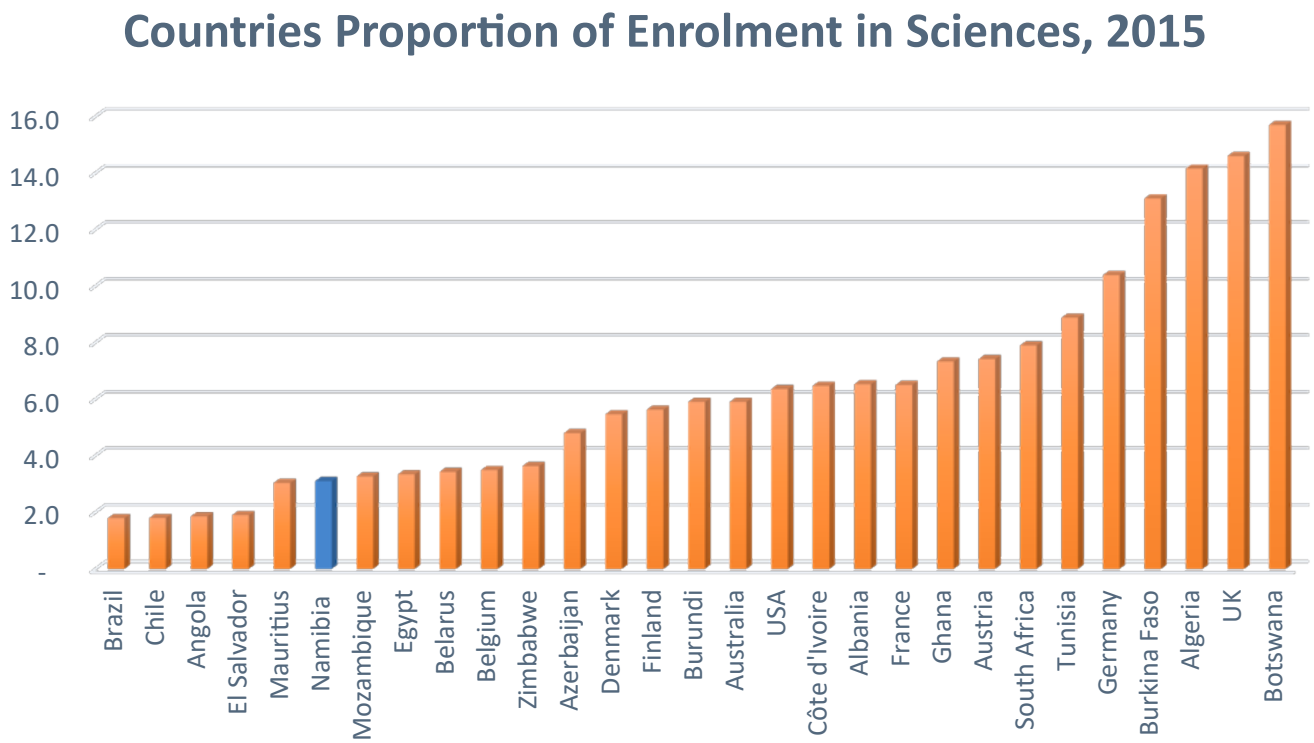
EQUITABLE ACCESS TO QUALITY HIGHER EDUCATION

NAMIBIA HIGHER EDUCATION INDICATORS

2012 - 2016

EQUITABLE ACCESS TO QUALITY HIGHER EDUCATION

Namibia Higher Education Indicators 2012-2016



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Windhoek West

NAMIBIA

P O Box 90890
Klein Windhoek
Namibia

Tel: +264 61 307012
Fax: +264 61 307014/16
Email: hemis@nche.org.na

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EQUITABLE ACCESS TO QUALITY HIGHER EDUCATION

Our Logo embodies the following:

- The 'hut' symbolises a pyramid of which the 'sticks' represent the different academic streams which lead to excellence;
- The different academic streams join and guarantee 'shelter' for the nation;
- The 'hut' also symbolises unity through binding the different academic streams together;
- This unified effort emphasises coordination among our higher education institutions.

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High Level Statements

The Vision

A valued leader in coordinating quality higher education in pursuit of a knowledge-based society

The Mission

To ensure a coordinated and responsive higher education system through equitable access and quality service delivery.

The Core Values

Integrity	We will adhere to moral and ethical principles by exhibiting the quality of an intuitive sense of honesty and truthfulness with regard to the motivation for our actions.
Professionalism	We will exercise high level of competence in our work, never compromise our set standards and values.
Accountability	We will acknowledge and take responsibility for our actions, decisions and policies including the administration, governance and implementation within the scope of our role and encompassing the obligation to report, explain and be answerable for resulting consequences.
Equity	We will serve our employees, customers and stakeholders with uniformity of rule application, fairness, reasonableness and interpretation, and make decisions that are free from any bias or dishonesty.
Commitment	We will devote our time and energy always to meet our strategic objectives and satisfy our stakeholders' expectations.
Teamwork	We will continuously work together as a team to achieve our strategic objectives, reason of existence and hold ourselves accountable for our team outputs.

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PREFACE

Knowledge and information forms the backbone of any planning and steering of higher education systems. In the real sense, it is the first and foremost building block on which national plans and policy frameworks for higher education rest. Adequate levels of systemic and institutional coordination are unlikely to be achieved without an integrated and dynamic education management information system (HEMIS) to which all higher education structures and institutions contribute and access data.

Until the recent establishment of HEMIS, Namibia did not have the benefit of producing integrated higher education information. Thus, for many years, most of the Namibian higher education observers bemoaned the absence of a macro level higher education planning mechanism. This created the impression that planning for higher education was not an urgent imperative at any level. Consensus now exists within the Namibian higher education system that coordination at all levels and between all structures must be improved in order for higher education to maximise its potential in relation to Vision 2030's objectives.

This report (Namibia Higher Education Indicators 2012-2016) follows the publication of the 2016 Namibia Higher Education Statistical Yearbook. Its purpose is to report the status of higher education in Namibia and to identify policies and practices that hinder progress so as to improve overall attainment in higher education. The report examines the enrolment trends; equality; quality; efficiency; and financial investments.

In the spirit of international integration, governments are paying increasing attention to international comparisons as they search for effective policies that enhance individuals' social and economic prospects, provide incentives for greater efficiency in education, and help to mobilise resources to meet rising demands. Therefore, in presenting indicators in this report, efforts have not only been made to present the evolution in time, but also in international comparison where the information is available and relevant. Our hope is that the Namibia Higher Education Indicators report becomes an important tool for planners, decision makers, researchers and international organisations.

Dr Itah Kandjii-Murangi (MP)
Minister of Higher Education, Training and Innovation

THE MINISTER
18 MAR 2019

LIST OF ABBREVIATIONS/ACRONYMS

ALI	African Leadership Institute
BQAA	British Quality Assurance Agency
CPI	Consumer Price Index
EPA	Engineering Professions Association of Namibia
ETSIP	Education Training Sector Improvement Programme
FF	Funding Framework
FTE	Full-time Equivalent
GCR	Global Competitiveness Report
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GPI	Gender Parity Index
Headstart	Headstart Montessori Academic Staff Training College
HEIs	Higher Education Institutions
HEMIS	Higher Education Management Information System
HPCNA	Health Professions Councils of Namibia
ICAN	Institute of Chartered Accountants in Namibia
IOL	Institute for Open Learning
IUM	International University of Management
Lingua	International Training College Lingua
MHETI	Ministry of Higher Education, Training and Innovation
Monitronic	Monitronic Success College
MTPB	Medium Term Plans and Budgets
NAMCOL	Namibian College of Open Learning
NCHE	National Council for Higher Education
NETS	Namibia Evangelical Theological Seminary
NHESY	Namibia Higher Education Statistical Yearbook
NQA	Namibia Qualifications Authority
NQF	National Qualifications Framework
NS	Not Stated
NSA	Namibia Statistics Agency
NSFAF	Namibia Student Financial Assistance Fund
NUST	Namibia University of Science and Technology
SADC	Southern African Development Community
ST. CHARLES	St. Charles Lwanga Major Seminary
STEM	Science, Technology, Engineering and Mathematics
TRIUMPANT	Triumphant College
UIS	UNESCO Institute for Statistics
ULTS-Paulinum	United Lutheran Theological Seminary Paulinum
UNAM	University of Namibia
UNESCO	United Nations Educational, Scientific and Cultural Organization
VET	Vocational Education and Training
VTC	Vocational Training Centers
GCR	Global Competitiveness Report

INTRODUCTION

Background

Namibia is classified as an (upper) middle-income country with a gross domestic product (GDP) per capita of US$ 5,776 in 2015, which was the fifth highest in the Southern African Development Community (SADC) region after Seychelles, Mauritius, Botswana and South Africa, and almost three times the average per capita income of Sub-Saharan Africa.

In line with well-known economic theory of stages of development, the Global Competitiveness Report

[1] The Global Competitiveness Report 2016-2017: Full Data Edition is published by the World Economic Forum within the framework of The Global Competitiveness and Benchmarking Network.

(GCR) 2016-2017 defines three stages of economic development. It assumes that, in the first stage, the economy is Factor-driven and countries compete based on their factor endowments—primarily unskilled labour and natural resources.

As a country becomes more competitive, productivity will increase and wages will rise with advancing development. Countries will then move into the Efficiency-driven stage of development, when they must begin to develop more efficient production processes and increase product quality because wages have risen and they cannot increase prices.

Finally, as countries move into the Innovation-driven stage, wages will have risen by so much that they are able to sustain those higher wages and the associated standard of living only if their businesses are able to compete with new and unique products. At this stage, companies must compete by producing new and different goods, using the most sophisticated production processes and by innovating new ones.

The Global Competiveness Index 2016-2017 classifies Namibia in the "Efficiency-driven" group.

[2] The Global Competitiveness Report 2016-2017

Competitiveness is defined as the set of institutions, policies, and factors that determine the level of productivity of a country. The level of productivity, in turn, sets the level of prosperity that can be reached by an economy. The productivity level also determines the rates of return obtained by investments in an economy, which in turn are the fundamental drivers of its growth rates. In other words, a more competitive economy is one that is likely to grow faster over time.

The Role of Higher Education in Global Economic Development

In regard with its competitiveness level, in 2015, Namibia reversed its downward trend of previous years slightly, improving its competiveness ranking by two places to reach

84th place over 140. According to the GCR, in order to improve competitiveness, as in much of the region, Namibia must improve its health and educational systems. The country is ranked low, at 133 on the health sub-pillar (down five places), with high infant mortality and low life expectancy — the results, in large part, of the high rates of communicable diseases. On the educational side, enrolment rates remain low and the quality of the educational system remains poor (92th). In addition, Namibia could do more to harness new technologies to improve its productivity levels (84th).

An education system that responds to the needs of the labour market helps economies to avoid skills gaps and ensure availability of adequately trained human capital to support business activity as well as to develop quality higher education and training which is crucial for economies that want to move up the value chain beyond simple production processes and products. This shows the importance **of** higher education in addressing the challenges of the country. In the Fifth National Development Plan (NDP5) 2017/18 to 2021/22, Namibia envisions a fully integrated and flexible education and training system that prepares Namibian students to take advantage of a rapidly changing global environment and contributes to the

economic, moral, cultural and social development of its citizens throughout their lives.

Institutional Framework of the Namibian Higher Education System

Article 20 of the Namibian Constitution and the Education Act (2001) state the frame of the educational system, which includes both formal and non-formal education. As of 2016, the formal education comprises seven years in primary schooling, three years in junior secondary, two years in senior secondary and four years in university (undergraduate degree). The government is responsible for providing basic education to all citizens, including adults.

Primary education is compulsory for every child from the year in which the child attains the age of seven until the day they complete primary education or until the last school day of the year in which the child reaches the age of 16 years. Primary school lasts seven years, of which the first three years are lower primary and the last three years are upper primary. Secondary school consists of the junior and senior secondary phases, which last three and two years respectively. At the end of the junior secondary phase, learners can enrol in senior secondary education or in vocational education and training (VET), while at the end of the senior secondary phase they can enrol in higher education or VET. An estimated 30,000 young people leave school each year at the end of grade 10 and grade 12 due to poor examination results. The number of grade 12 learners obtaining the entry requirements for university (25 points in five subjects of which one should be a minimum symbol D in English) is quite low. In 2015, only close to 30 per cent of the 20,301 grade 12 learners met university entry requirements.

The Namibian higher education sector is governed by the Higher Education (HE) Act, Act 26 of 2003. In terms of this Act, "higher education" means all learning programmes leading to qualifications higher than grade 12 or its equivalent, and includes tertiary education as outlined in Article 20(4) of the Namibian Constitution, but does not include:

- Vocational training provided by a vocational training centre registered under the National Vocational Training Act, 1994 (Act No. 18 of 1994); or
- Open learning provided by NAMCOL established by the Namibian College of Open Learning Act, 1997 (Act No. 1 of 1997).

At operational level, higher education programmes are classified as those registered by the Namibia Qualifications Authority (NQA) at level 5 and above, on the National Qualifications Framework (NQF).

The main higher education institutions (HEIs) in Namibia are the two public universities and one private university, namely University of Namibia (UNAM); the Namibia University of Science and Technology (NUST), formerly Polytechnic of Namibia; and the International University of Management (IUM), including a modest number of private higher education colleges.

This report aims to present an analysis of the trends in higher education in Namibia. This analysis is based on a set of measurable quantitative indicators covering most aspects of the sector and for which information is available. Much of the information is extracted from the Namibia Higher Education Statistical Yearbooks (NHESY), published by NCHE. Other secondary information was obtained from the Namibia Statistics Agency (NSA) sources. Data from the UNESCO Institute for Statistics (UIS) and the World Bank were used for international comparisons.

The report firstly focuses on the evolution of each indicator nationally over time to see if the targets that the government has set for the sector are met and introduce the necessary adjustments in time. It also presents an international comparison with comparable and developed countries. This comparison allows the user to measure the progress the countries have made in relation to set targets and policies.

CHAPTER 1: ENROLMENT

1.1 Overview

In 2016 , the number of students registered for higher education programmes was 53,661, with 73.9 per cent in the public institutions, dominated by UNAM, and 26.1 per cent in the 11 private institutions, dominated by IUM, which accounted for about half of the students registered in the private sector. This number, however, excludes students studying outside Namibia. The enrolment in public HEIs marked a gradual growth, from 72.5 to 73.9 per cent, between 2012 and 2016, translating into a slight decline of the private HEIs enrolments from 27.5 per cent in 2012 to 26.1 per cent in 2016 (Table1.1).

Table 1.1 Students Enrolment by Higher Education Institution 2012-2016

Academic Year		2012		2013		2014		2015		2016	
HEI		**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**
UNAM	University of Namibia	16,638	40.3%	17,307	39.5%	19,202	40.9%	20,619	41.5%	24,988	46.6%
NUST	Namibia University of Science Technology	12,554	30.4%	12,653	28.9%	12,447	26.5%	12,245	24.6%	12,250	22.8%
NAMCOL	Namibian College of Open Learning	704	1.7%	883	2.0%	1,689	3.6%	2,053	4.1%	2,421	4.5%
Total Public HEIs		**29,896**	**72.5%**	**30,843**	**70.5%**	**33,338**	**71.0%**	**34,917**	**70.3%**	**39,659**	**73.9%**
IUM	International University of Management	5,563	13.5%	6,800	15.5%	7,511	16.0%	7,169	14.4%	6,640	12.4%
LINGUA	International Training College LINGUA	316	0.8%	516	1.2%	472	1.0%	757	1.5%	694	1.3%
HEADSTART	Headstart Montessori Academic Staff Training College	50	0.1%	90	0.2%	224	0.5%	374	0.8%	355	0.7%
ILSA	ILSA Independent College	107	0.3%	108	0.2%	102	0.2%				
IOL	Institute of Open Learning	4,033	9.8%	3,928	9.0%	4,254	9.1%	4,364	8.8%	4,368	8.1%
MONITRONIC	Monitronic Success College			151	0.3%	283	0.6%	188	0.4%	502	0.9%
NETS	Namibia Evangelical Theological Seminary	27	0.1%	22	0.1%	16	0.0%	19	0.0%	27	0.1%
IOB	Institute of Bankers	1,010	2.4%	1,032	2.4%			1,213	2.4%	511	1.0%
TRIUMPHANT	Triumphant College	203	0.5%	230	0.5%	709	1.5%	575	1.2%	823	1.5%
ALI	African Leadership Institute							23	0.0%	14	0.0%
ST.CHARLES LWANGA	Saint Charles Lwanga							33	0.1%	29	0.1%
ULTS-Paulinum	United Lutheran Theological Seminary-Paulinum	41	0.1%	41	0.1%	54	0.1%	46	0.1%	39	0.1%
Total Private HEIs		**11,350**	**27.5%**	**12,918**	**29.5%**	**13,625**	**29.0%**	**14,761**	**29.7%**	**14,002**	**26.1%**
Total Public and Private 2012		**41,246**	**100.0%**	**43,761**	**100.0%**	**46,963**	**100.%**	**49,678**	**100.0%**	**53,661**	**100%**

Source: NCHE, 2012-2015 NHESY

Comparison with other countries shows that in terms of enrolment in private HEIs, Namibia's enrolment share (29.3 per cent) is fairly high (Table 1.2). The percentage of enrolment in private HEIs is higher than in most of the SADC countries but lower than Mozambique and Botswana, 2012-2015.

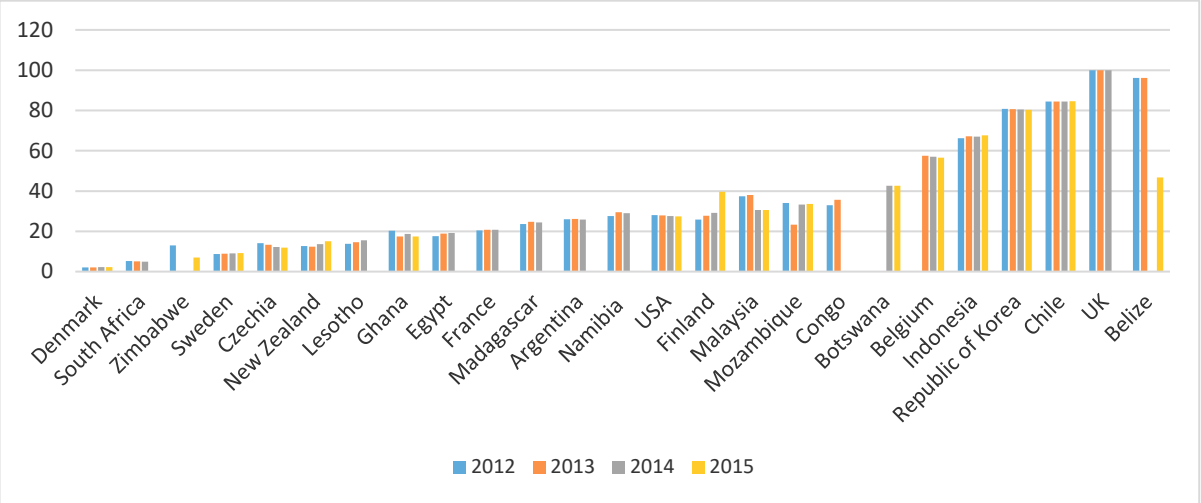
Table 1.2 Percentage of Enrolment in Private Higher Education Institutions

Country	Academic Year			
	2012	2013	2014	2015
Denmark	2.2	2.1	2.3	2.3
South Africa	5.2	5.0	4.8	4.8
Zimbabwe	13.0			6.9
Sweden	8.8	8.9	9.0	9.2
Czechia	14.1	13.3	12.3	11.9
New Zealand	12.7	12.4	13.7	15.0
Lesotho	13.7	14.6	15.5	15.5
Ghana	20.3	17.4	18.8	17.5
Egypt	17.5	18.8	19.2	19.2
France	20.5	20.8	20.8	20.8
Madagascar	23.6	24.7	24.4	24.4
Argentina	26.0	26.2	25.8	25.8
USA	28.0	27.8	27.5	27.3
Namibia	27.5	29.5	29.0	29.7
Malaysia	37.4	38.0	30.7	30.5
Mozambique	34.1	23.3	33.3	33.6
Congo	32.9	35.6		35.6
Finland	25.8	27.8	29.2	39.6
Botswana			42.6	42.6
Belize	96.2	96.2		46.8
Belgium		57.6	57.1	56.6
Indonesia	66.2	67.1	66.9	67.6
Republic of Korea	80.7	80.7	80.5	80.3
Chile	84.4	84.4	84.5	84.6
UK	100.0	100.0	100.0	100.0

Source: UNESCO-UIS, 2015; NCHE NHESY, 2013-2016

Figure 1.1 shows great disparity in private higher education institutions' enrolment between countries, with the Republic of Korea, Chile, United Kingdom and Belize persistently as high as 80 per cent and with Denmark, South Africa, Zimbabwe and Sweden below 10 per cent.

Figure 1.1 Percentage of Enrolment in Private Higher Education Institutions 2012-2015



Source: UNESCO-UIS, 2015; NCHE NHESY, 2013-2016

In countries where private institutions are substantially subsidised or aided by the government, the distinction between private and public educational institutions may be minimal, especially when certain students are directly financed through government scholarships.

Table 1.3 shows that HEIs are represented in most regions in Namibia. Most institutions are based in the Khomas Region, the location of the capital city, resulting in 66.7 per cent of student concentration in 2016. However, this percentage has been decreasing between 2012 (75.2 per cent) and 2016 (66.7 Per cent) as enrolment at other regional campuses or centres continues to expand.

Table 1.3 Student Enrolment by Region of Higher Education Institution Campus and by Sex 2012-2016

Campus Region	Academic Year																			
	2012				2013				2014				2015				2016			
	Male	Female	Total	% of Total	Male	Female	Total	% of Total	Male	Female	Total	% of Total	Male	Female	Total	% of Total	Male	Female	Total	% of Total
Erongo	363	679	1,042	2.5%	409	854	1,263	2.9%	499	1,204	1,703	3.6%	531	1,476	2,007	4.0%	532	1,343	1,875	3.5%
Hardap												0.0%				0.0%	224			0.0%
Karas	126	213	339	0.8%	101	217	318	0.7%	113	252	365	0.8%	160	477	637	1.3%	1,166	724	948	1.8%
Kavango East & West	549	531	1,080	2.6%	611	658	1,269	2.9%	827	1,059	1,886	4.0%	880	1,293	2,173	4.4%	13,735	1,587	2,753	5.1%
Khomas	12,420	18,612	31,032	75.2%	12,724	20,258	32,982	75.4%	13,117	20,438	33,555	71.4%	13,446	21,181	34,627	69.7%	14	22,076	35,811	66.7%
Kunene	22	22	44	0.1%	25	21	46	0.1%	26	25	51	0.1%	37	40	77	0.2%	71	7	21	0.0%
Ohangwena	33	71	104	0.3%	53	93	146	0.3%	50	127	177	0.4%	62	140	202	0.4%	50	143	214	0.4%
Omaheke	50	85	135	0.3%	34	72	106	0.2%	43	84	127	0.3%	42	82	124	0.2%	158	95	145	0.3%
Omusati	125	187	312	0.8%	132	196	328	0.7%	137	210	347	0.7%	144	198	342	0.7%	2,196	230	388	0.7%
Oshana	1 ,648	4,179	5,827	14.1%	1,580	4,367	5,947	13.6%	1,861	5,164	7,025	15.0%	1,880	5,724	7,604	15.3%	99	6,418	8,614	16.1%
Oshikoto	71	105	176	0.4%	76	105	181	0.4%	88	123	211	0.4%	88	117	205	0.4%	103	163	262	0.5%
Otjozondjupa	94	142	236	0.6%	85	126	211	0.5%	97	181	278	0.6%	83	206	289	0.6%	695	278	381	0.7%
Zambezi	365	550	915	2.2%	378	580	958	2.2%	487	747	1,234	2.6%	528	863	1,391	2.8%	273	1,052	1,747	3.3%
Not stated	1	3	4	0.0%	1	5	6	0.0%	1	3	4	0.0%				0.0%	273	229	502	0.9%
Total	**15,867**	**25,379**	**41,246**	**100.0%**	**16,209**	**27,552**	**43,761**	**100.0%**	**17,346**	**29,617**	**46,963**	**100.0%**	**17,881**	**31,797**	**49,678**	**100.0%**	**19,589**	**34,345**	**53,661**	**100.0%**

Source: NCHE, 2012-2016 NHESY

In 2016, about 6.9 per cent of the students in the Namibian HEIs were from elsewhere (inbound enrolment), with the majority from Angola, Zimbabwe and Zambia (Table 1.4).

Table 1.4 Students Enrolment by Nationality 2012 - 2016

Nationality	2012		2013		2014		2015		2016	
	Number of Students	%	Number of Students	%	Number of Students	%	Number of Students	%	Number of Students	%
Namibia	37,367	90.6%	40,111	91.7%	42,849	91.2%	45,425	91.4%	49,936	93.1%
Zambia	861	2.1%	831	1.9%	799	1.7%	737	1.5%	1,338	2.5%
Angola	831	2.0%	951	2.2%	956	2.0%	1,075	2.2%	97	0.2%
Zimbabwe	701	1.7%	731	1.7%	914	1.9%	967	1.9%	72	0.1%
Botswana	225	0.5%	186	0.4%	165	0.4%	133	0.3%	626	1.2%
Other African Countries	215	0.5%	226	0.5%	294	0.6%	151	0.3%	1,038	1.9%
Other SADC Countries	156	0.4%	146	0.3%	118	0.3%	278	0.6%	239	0.4%
South Africa	53	0.1%	48	0.1%	59	0.1%	67	0.1%	188	0.4%
Asian and Oceanic Countries	47	0.1%	43	0.1%	35	0.1%	36	0.1%	17	0.0%
European Countries	24	0.1%	19	0.0%	28	0.1%	20	0.0%	34	0.1%
American Countries	11	0.0%	15	0.0%	10	0.0%	32	0.1%	41	0.1%
Non Stated	755	1.8%	454	1.0%	736	1.6%	757	1.5%	35	0.1%
TOTAL	41,246	100.0%	43,761	100.0%	46,963	100.0%	49,678	100.0%	53,661	100.0%

Source: NCHE, NHESY 2013-2016

1.2 Number of Student Enrolments per 100,000 Inhabitants

The number of students per 100,000 inhabitants is one of the most common indicator for the level of enrolment in higher education. This indicator is obtained by dividing the total number of students enrolled in higher education in a given academic year by the country's population and multiplying the result by 100,000. Table 1.5 shows a gradual growth in the number of students per 100,000 inhabitants.

Table 1.5 Number of Students per 100,000 Inhabitants

Year	Number of Students (*)	Population (**)	Students /100,000 Inhabitants
2012	41,246	2,155,440	1,914
2013	43,761	2,196,086	1,993
2014	46,963	2,237,894	2,099
2015	49,678	2,280,716	2,178
2016	53,661	2,324,388	2,309

Source: (*) NCHE, NHESY 2012-2015 ; (**) NSA (Population Projections)

Compared to other countries (Table 1.6), Namibia is one of the countries with the highest number of students per 100,000 inhabitants in the Sub-Saharan region, but still below the values for developed countries.

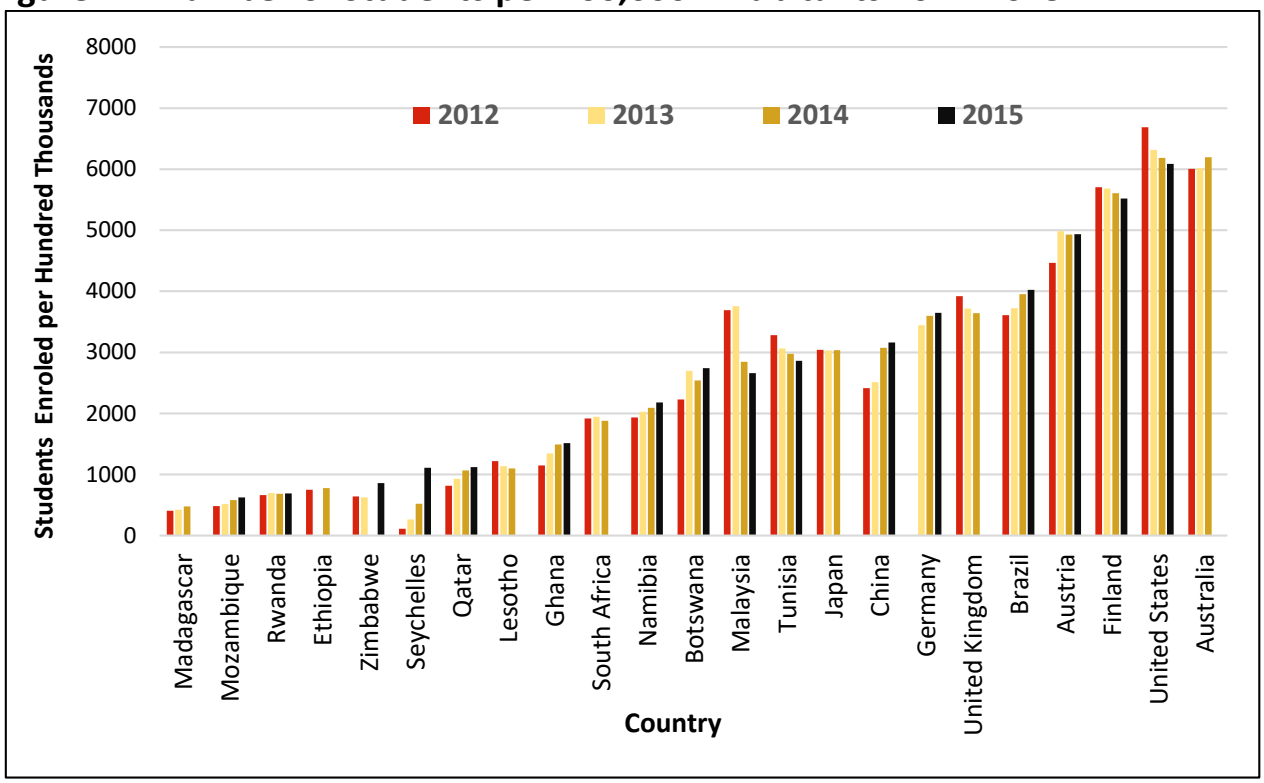
Figure 1.2 reveals the disparity in populations enrolled in higher education for developed countries compared to developing countries. By implication, Namibia needs to double the figures to match countries such as the UK and Brazil, and to triple them to enrol as much as the USA or Australia enrolled in 2015.

Table 1.6 Number of Students per 100,000 Inhabitants2012-2015

Country	2012	2013	2014	2015
Madagascar	404	423	479	-
Zimbabwe	639	625	-	859
Seychelles	113	265	523	1,108
Mozambique	482	518	579	624
Rwanda	664	697	683	691
Ethiopia	750	-	778	-
Qatar	818	929	1,064	1,123
Lesotho	1,220	1,137	1,097	-
Ghana	1,148	1,347	1,491	1,514
South Africa	1,915	1,943	1,881	-
Namibia	1,933	2,027	2,095	2,178
Botswana	2,231	2,699	2,542	2,742
Malaysia	3,691	3,759	2,846	2,661
Tunisia	3,283	3,063	2,977	2,862
Japan	3,044	3,031	3,035	-
China	2,413	2,512	3,073	3,163
Germany	-	3,447	3,596	3,645
United Kingdom	3,918	3,721	3,642	-
Brazil	3,611	3,726	3,953	4,023
Austria	4,466	4,986	4,931	4,934
Finland	5,706	5,681	5,604	5,520
United States	6,686	6,316	6,184	6,087
Australia	6,002	6,015	6,196	-

Source: World Bank, World Development Indicators; NCHE, NHESY 2013-2015

Figure 1.2 Number of Students per 100,000 Inhabitants 2012-2015



Source: World Bank, World Development Indicators; NCHE, NHESY 2013-2015

Since the students per 100,000 indicator takes into account the entire population in a country instead of the age group corresponding to higher education, its comparability may be affected by the relative weight of this age group within the entire population. When data are available for students and/or population by age, more precise assessment of participation in higher education can be made by using the Gross Enrolment Ratios (GERs).

1.3 Gross Enrolment Ratio

The GER is the most used indicator to assess the level of enrolment in HEIs within a country. An elementary formula used by most countries to calculate the GER is to divide the number of individuals/students who are actually enroled in HEIs by the number of young people in the five-year age group following the secondary school leaving age (19-23 years old population for Namibia). Table 1.7 presents the GER of Namibia for 2012 to 2016.

Table 1.7 Namibia Gross Enrolment Ratio 2012-2016

Year	Total Enrolment in Local HEIs	Population 19-23 Years Old	GER
2012	41,246	225,564	18.3%
2013	43,761	229,298	19.1%
2014	46,963	232,430	20.2%
2015	49,678	235,045	21.1%
2016	53,661	237,265	22.6%

Source: NCHE, NSA (Population projections)

Namibia's GER has increased steadily from 18.3 per cent in 2012 to 22.6 percent in 2016. It is important to compare this level to what exists in the world. Table 1.8 provides the GER for a sample of countries. It shows that Namibia's GER is one of the highest in the Sub-Saharan region, also higher than the African ratio but slightly lags behind developing countries' average and far behind upper middle-income grouping (41.1 per cent in 2014), to which Namibia belongs. Namibia countries' average.

Table 1.8 Gross Enrolment Ratio 2012-2015

Country	Academic Year			
	2012	2013	2014	2015
Burundi	3.7	4.4	5.0	
Burkina Faso	4.6	4.8		
Swaziland		5.3		
Zimbabwe	5.9	5.9		8.4
Low-income countries		7.7	7.7	
Congo	10.4	9.7		
Africa		12.1	12.2	
Namibia	18.3	19.1	20	21.1
South Africa	19	19.7	19.4	
Lower middle-income countries		22.1	22	
India	24.4	23.9	25.5	26.9
Botswana	21.1	25	28	
Developing countries	26.6	26.6	29	
Middle-income countries		27.9	30	
China	27.2	30.2	39.4	43.4
World	32.2	32.7	34 .4	36.9
Algeria	32.2	34	34.6	34.6
Tunisia	35.2	34.1	34.6	
Upper middle-income countries		35.3	41.12	
United Kingdom	59.2	56.9	56.5	
Countries in transition	57.7	57.5		
Germany		61.1	65.5	68.3
France	60	62.2	64.4	
Japan	61.5	62.4	63.4	
High-income countries		73.8	74.5	
Developed countries	76.3	74.4	74.3	
Austria	72.3	80.4	80	81.5
Denmark	79.3	81.2	81.5	82.8
Chile	79.5	83.8	86.6	88.6
Australia	85.4	86.6	90.3	
USA	94.8	88.8	86.7	85.8
Finland	93.3	91.1	88.7	87.3

Source: UNESCO-UIS, NCHE for Namibia

CHAPTER 2: EQUALITY

2.1 Introduction

Chapter 1 provides very important data for assessment of the level of development of higher education in a country. However, these aggregate data often conceal different levels of equality.

The GER can be, for example, satisfactory as a national figure, but this level can mask inequalities in access at regional or social levels. The examination of the distribution of students between the different fields can also reveal important imbalances or a mismatch between training and the needs of the country.

2.2 Gender

Two main indicators are used to assess gender disparity with regard to participation in different levels of higher education: These are the Percentage of Female Students and the Gender Parity Index (GPI).

As per the Percentage of Female Students, a figure close to 50 per cent indicates a good level of gender parity. GPI measures progress towards gender parity in education participation and/or learning opportunities available for women in relation to those available to men. It also reflects the level of women's empowerment in society. A GPI equal to 1 indicates parity between females and males. In general, a value less than 1 indicates disparity in favour of males and a value greater than 1 indicates disparity in favour of females.

The distribution by sex shows (in line with what is observed in most countries) that girls dominate enrolments with a share close to 64.0 per cent, translating into an average 2 female students for every male student (Table 2.1). Female students were proportionally more in the private higher education institutions than in the public higher education institutions.

When 34,165 female students are divided by 19,316 male students, Namibia's GPI for the year 2016 amounts to 1.77 (177 female students for every 100 male students, the figures for public and private HEIs are 1.62 and 2.52 respectively, marking a steep growth from a national GPI of 1.60 (160 female students for every 100 male students) in 2012. With the exception of the three faith-based institutions (Saint Charles, Paulinum and NETS), the GPI percentage is largely in favour of females for all HEIs.

Table 2.1 Student Enrolments by Sex 2012-2016

Academic Year	2012				2013				2014				2015				2016			
HEI	Male	Female	Total	% Female	Male	Female	Total	% Female	Male	Female	Total	% Female	Male	Female	Total	% Female	Male	Female	Total	% Female
UNAM	6,379	10,259	16,638	61.7%	6,540	10,767	17,307	62.2%	7,215	11,987	19,202	62.4%	7,624	12,995	20,619	63.0%	9,023	15,965	24,988	63.9%
NUST	5,466	7,088	12,554	56.5%	5,533	7,120	12,653	56.3%	5,589	6,858	12,447	55.1%	5,659	6,586	12,245	53.8%	5,904	6,346	12,250	51.8%
NAMCOL	68	636	704	90.3%	57	826	883	93.5%	128	1,561	1,689	92.4%	176	1,877	2,053	91.4%	188	2,233	2,421	92.2%
Total Public	11,913	17,983	29,896	60.2%	12,130	18,713	30,843	60.7%	12,932	20,406	33,338	61.2%	13,459	21,458	34,917	61.5%	15,115	24,544	39,659	61.9%
IUM	2,114	3,449	5,563	62.0%	2,288	4,512	6,800	66.4%	2,719	4,792	7,511	63.8%	2,412	4,757	7,169	66.4%	2,240	4,400	6,640	66.3%
LINGUA	89	227	316	71.8%	142	374	516	72.5%	176	296	472	62.7%	239	518	757	68.4%	273	241	694	60.7%
HEADSTART	1	49	50	98.0%	1	89	90	98.9%	4	220	224	98.2%	18	356	374	95.2%	58	297	355	83.7%
ILSA	43	64	107	59.8%	42	66	108	61.1%		45	102	44.1%								
IOL	1,249	2,784	4,033	69.0%	1,065	2,863	3,928	72.9%	960	3,294	4,254	77.4%	773	3,591	4,364	82.3%	702	3,666	4,368	83.9%
MONITRONIC	-	-	-		69	82	151	54.3%	168	115	283	40.6%	90	98	188	52.1%	273	229	502	45.6%
NETS	18	9	27	33.3%	17	5	22	22.7%	13	3	16	18.8%	14	5	19	26.3%	20	7	27	25.9%
IOB	279	731	1,010	72.4%	285	747	1,032	72.4%					424	789	1,213	65.0%	124	387	511	75.7%
TRIUMPHANT	136	67	203	33.0%	145	85	230	37.0%	281	428	709	60.4%	385	190	575	33.0%	458	365	823	44.3%
ALI													6	17	23	73.9%	3	11	14	78.6%
ST.CHARLES LWANGA													31	2	33	6.1%	27	2	29	6.9%
ULTS-Paulinum	25	16	41	39.0%	25	16	41	39.0%	36	18	54	33.3%	30	16	46	34.8%	23	16	39	41.0%
Total Private HEIs	3,954	7,396	11,350	65.2%	4,079	8,839	12,918	68.4%	4,414	9,211	13,625	67.6%	4,422	10,339	14,761	70.0%	4,201	9,621	14,002	68.7%
Total Public and Private	15,867	25,379	41,246	61.5%	16,209	27,552	43,761	63.0%	17,346	29,617	46,963	63.1%	17,881	31,797	49,678	64.0%	19,316	34,165	53,661	63.7%

Source: NCHE, NHESY 2013-2016

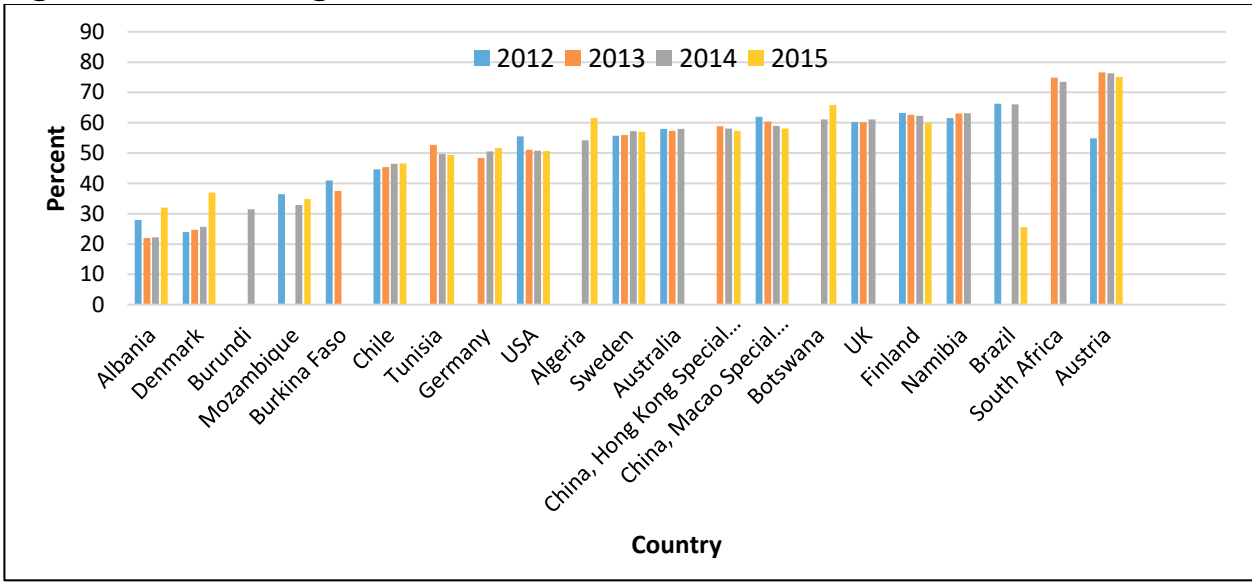
Table 2.2 and Figure 2.1 show that the percentage of female student enrolment in Namibia (64 per cent) is one of the highest in the world, below that of South Africa (73.5 per cent) and Austria (75.1 per cent).

Table 2.2 Percentage of Female Student Enrolment 2012-2015

Country	Academic Year			
	2012	2013	2014	2015
Albania	28.0	22.0	22.2	32.0
Denmark	24.0	24.7	25.7	36.9
Burundi			31.5	
Mozambique	36.4		32.9	34.8
Burkina Faso	40.9	37.5		
Chile	44.6	45.4	46.5	46.6
Tunisia		52.6	49.7	49.4
Germany		48.4	50.5	51.6
USA	55.5	51.1	50.8	50.6
Algeria			54.2	61.5
Sweden	55.7	55.9	57.3	57.0
Australia	58.0	57.4	58.0	
China, Hong Kong Special Administrative Region		58.9	58.0	57.4
China, Macao Special Administrative Region	62.0	60.3	58.9	58.1
Botswana			61.1	65.9
UK	60.2	60.1	61.1	
Finland	63.3	62.7	62.3	59.9
Namibia	61.5	63.0	63.1	64.0
South Africa		74.9	73.5	
Austria	54.9	76.6	76.2	75.1

Source: UNESCO-UIS, NCHE (NHESY 2012-2015)

Figure 2.1 Percentage of Female Enrolment in 2012-2015



Source: UNESCO-UIS, NCHE (NHESY 2012-2015)

2.3 Regional Distribution

Table 2.3 presents the distribution of enrolment by region of grade 12. The region of grade 12 is used as a proxy of the region of origin.

The number of students from the Khomas region (9,374 students) was the largest at HEIs while those from Kunene were the smallest (409 students) in 2016 (Table 2.3). However, because of the differences in regional population sizes, it is more relevant to compare regions based on the number of students per 100 000 inhabitants. Using this indicator, the Zambezi region becomes the first region with 2,540 students per 100,000 inhabitants, followed by Khomas with 2,255 students per 100,000 inhabitants and Kunene, the least, with only 418 students per 100,000 inhabitants in 2016 (Table 2.4). Back in 2012, Oshana had the largest number of students in (HEIs), followed by the Zambezi region. The disparities among regions, in part, reveal the problem of achievement at the lower levels of education (primary and secondary).

This indicator for cross-regional comparison should be used cautiously because:

- The region of grade 12 may not necessarily be the region of origin.
- There is a significant "Non Stated" percentage (41.1 in 2016) among the data in Table 2.3 due to the fact that many HEIs did not provide the information about the region of grade 12 of their students.

Table 2.3 Student Enrolments per 100,000 Inhabitants by Region of Grade 12, 2012-2016

Region of Grade 12	2012				2013				2014				2015				2016			
	Number	%	Popu-lation	Students Per 100,000 Inhabi-tants	Number	%	Popu-lation	Students Per 100,000 Inhabi-tants	Number	%	Popu-lation	Students Per 100,000 Inhabi-tants	Number	%	Popu-lation	Students Per 100,000 Inhabi-tants	Number	%	Popu-lation	Students Per 100,000 Inhabi-tants
Erongo	1,164	2.8%	115,114	1,011	1,189	2.7%	115,882	1,026	1,353	2.9%	116,640	1,160	1,508	3.0%	117,378	1,285	1,227	2.3%	182,402	673
Hardap	510	1.2%	72,972	699	516	1.2%	73,459	702	533	1.1%	73,940	721	622	1.3%	74,407	836	631	1.2%	87,186	724
Karas	622	1.5%	74,127	839	647	1.5%	74,622	867	594	1.3%	75,110	791	688	1.4%	75,585	910	637	1.2%	85,759	743
Kavango East & West	1,421	3.5%	282,199	504	1,469	3.4%	290,984	505	1,451	3.1%	300,000	484	1,685	3.4%	309,232	545	2,260	4.2%	237,779	950
Khomas	5,582	13.5%	360,116	1,550	6,795	15.5%	372,441	1,824	7,425	15.9%	385,135	1,928	7,628	15.4%	398,179	1,916	9,374	17.5%	415,780	2,254.56
Kunene	193	0.5%	78,574	246	219	0.5%	79,574	275	232	0.5%	80,577	288	253	0.5%	81,576	310	409	0.8%	97,865	418
Ohangwena	1,710	4.2%	275,598	620	1,783	4.1%	280,507	636	1,948	4.2%	285,463	682	2,025	4.1%	290,447	697	2,440	4.5%	255,510	955
Omaheke	212	0.5%	83,013	255	189	0.4%	84,576	223	210	0.5%	86,157	244	232	0.5%	87,748	264	599	1.1%	74,629	803
Omusati	2,714	6.6%	250,122	1,085	2,714	6.2%	252,295	1,076	2,784	6.0%	254,453	1,094	2,851	5.7%	256,576	1,111	3,786	7.1%	249,885	1,515
Oshana	3,622	8.8%	182,910	1,980	3,774	8.6%	185,054	2,039	3,715	8.0%	187,197	1,985	3,467	7.0%	189,326	1,831	3,867	7.2%	189,237	2,043
Oshikoto	2,659	6.5%	190,065	1,399	2,465	5.6%	193,063	1,277	2,477	5.3%	196,082	1,263	2,718	5.5%	199,107	1,365	1,284	2.4%	195,165	658
Otjozo-ndjupa	908	2.2%	170,721	532	936	2.1%	174,458	537	990	2.1%	178,252	555	1,086	2.2%	182,091	596	1,142	2.1%	154,342	740
Zambezi	1,525	3.7%	90,176	1,691	1,644	3.8%	91,233	1,802	1,825	3.9%	92,290	1,977	1,965	4.0%	93,339	2,105	2,511	4.7%	98,849	2,540
Others	5,622	13.6%			4,464	10.2%			3,261	7.0%			2,792	5.6%			1,465	2.7%		
Not Stated	12,782	31.0%			14,957	34.2%			17,821	38.2%			19,786	39.8			22,029	41.1%		
TOTAL	41,246	100.0%	2,225,707	1,853	43,761	100.0%	2,268,148	1,929	46,619	100.0%	2,311,296	2,017	49,678	100.0%	2,354,991	2,109	53,661	100.0%	2,324,388	2,309

Source: NSA, NCHE(NHESY 2012-2016)

2.4 Student Enrolments by Fields of Learning

Student enrolments by fields of learning is useful to gauge the level of development of higher education in terms of the range of fields offered, the capacity in each field as well as student preferences, thus reflecting both the potential demand and supply of qualified human resources in different specialisations. Relative concentration of students in particular fields of learning such as Business and Education depicts, on the one hand, high preference or low entry requirements and, on the other hand, reflects job opportunities usually demanded in the education and health sectors.

Table 2.4 Student Enrolments by NQF Field of Learning (Namibia), 2012-2016

Field of Learning	2012		2013		2014		2015		2016	
	Number	%	Number	%	Number	%	Number	%	Number	%
Agriculture and Nature Conservation	920	2.2%	758	1.7%	916	2.0%	1046	2.1%	1,136	2.1%
Business, Commerce and Management Studies	18,511	44.9%	19,764	45.2%	19425	41.4%	20005	40.3%	19,416	36.2%
Communication Studies and Languages	1,239	3.0%	1,278	2.9%	1289	2.7%	1459	2.9%	1,734	3.2%
Culture and the Arts	57	0.1%	56	0.1%	952	2.0%	72	0.1%	72	0.1%
Education, Training and Development	8,907	21.6%	9,693	22.1%	12347	26.3%	14039	28.3%	17,426	32.5%
Manufacturing, Engineering and Technology	1,290	3.1%	1,342	3.1%	1803	3.8%	1493	3.0%	1,686	3.1%
Human and Social Studies	2,231	5.4%	2,316	5.3%	898	1.9%	1708	3.4%	1,931	3.6%
Law, Military Science and Security	969	2.3%	1,090	2.5%	1291	2.7%	1404	2.8%	1,325	2.5%
Health Sciences and Social Services	2,417	5.9%	2,240	5.1%	2899	6.2%	3159	6.4%	3,614	6.7%
Physical, Mathematical and Computer Sciences	3,785	9.2%	3,578	8.2%	4051	8.6%	4085	8.2%	4,172	7.8%
Physical Planning and Construction	406	1.0%	507	1.2%	449	1.0%	742	1.5%	819	1.5%
Services and Life Sciences	493	1.2%	1,138	2.6%	643	1.4%	466	0.9%	330	0.6%
Not stated	21	0.1%	1	0.0%		0.0%		0.0%		
Total	41,246	100.0%	43,761	100.0%	46,963	100.0%	49,678	100.0%	53,661	100.0%

Source: NCHE, NHESY 2013-2016

Higher education enrolments are dominated by Business, Commerce and Management Studies, which represented 36.2 per cent of enrolments in 2016 (Table 2.4). This percentage has, however, started experiencing a downward trend since 2014 when it dropped to 41.4 per cent from 45.2 per cent in 2013. This trend may be attributed to the transition of the Polytechnic of Namibia into NUST. The second highest enrolment is in Education Training and Development with 32.5 per cent, which has increased from 21.6 per cent in 2012. The remaining enrolments are spread among the other fields of Learning

It is not easy to make international comparisons, because the structures of the NQF fields of learning are not the same across the world. In order to make the comparison possible, it will be necessary that the data gathered from the higher education institutions in future use a nomenclature at the level of sub-fields. This calls for a development of the nomenclature of sub-fields under the NQF. Moreover, cross-country comparisons rely heavily on how far countries have used consistent field definitions. Aggregated information may not be fully comparable at the international level due to exclusions, double counting of students, incomplete data, and so forth. This shortcoming is minimised by the usage of the International Standard

Classification of Education (ISCED 2011), used by the UNESCO Institute of Statistics (UIS) to benchmark and standardise qualifications for international comparisons in some key fields.

To make comparison possible, the fields of learning are aggregated in the following sections. In comparing the range of programmes of higher education in Namibia with other countries, Namibia has one of the highest percentage of enrolments in Business, Administration and Law than other countries in transition and developed countries. Similarly, Namibia's enrolment in Education is also comparatively high. Enrolment in engineering, however, is very low, especially when compared to countries in transition.

2.4.1 Business, Administration and Law

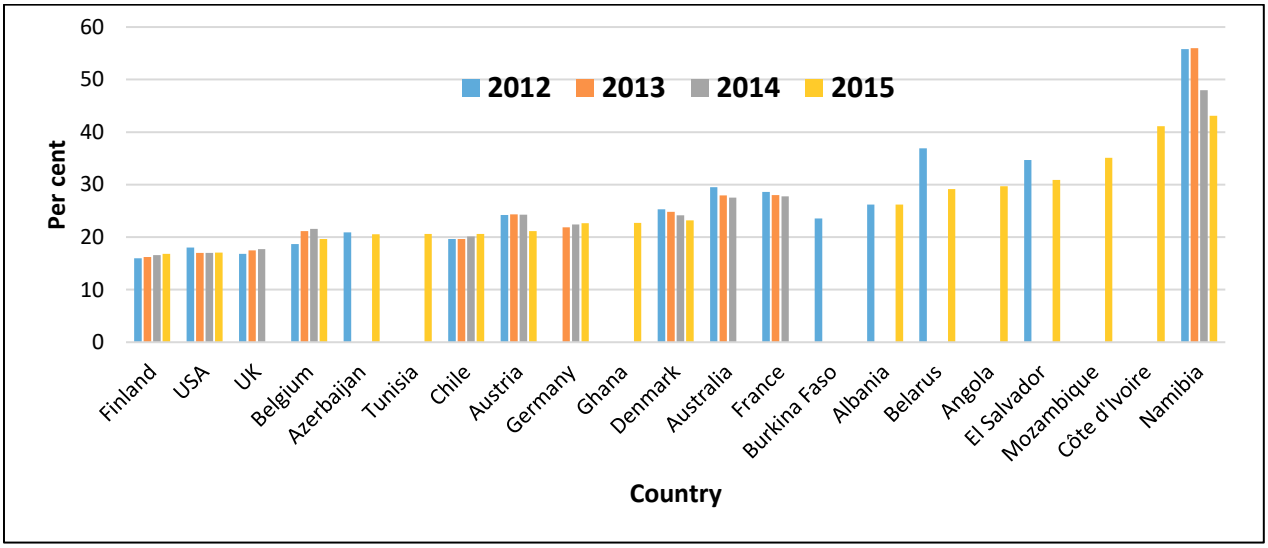
Although Namibia's proportions of enrolment in Business, Administration and Law is the highest, it has declined the most from 55.6 per cent in 2012 to 43 per cent in 2015 (Table 2.5 and Fig 2.2). It is also important to note that there are great disparities among developed countries. This rate must be assessed taking into account the specific situation of each country (Finland, USA, and Australia) and particularly the level of industrial development and the type of predominant economic activities.

Table 2.5 Percentage of Student Enrolment in Business, Administration and Law Fields, 2012-2015

Country	Academic Year			
	2012	2013	2014	2015
Egypt				13.22
Finland	16.00	16.22	16.59	16.82
USA	18.01	17.03	17.03	17.07
UK	16.83	17.47	17.72	
Belgium	18.71	21.17	21.55	19.63
Azerbaijan	20.90			20.53
Tunisia				20.62
Chile	19.63	19.63	20.11	20.58
Austria	24.21	24.33	24.27	21.17
Germany		21.87	22.42	22.66
Ghana				22.73
Denmark	25.28	24.84	24.14	23.22
Australia	29.53	27.92	27.54	
France	28.62	28.02	27.78	
Burkina Faso	23.55			
Albania	26.20			26.22
Belarus	36.94			29.15
Angola				29.67
El Salvador	34.68			30.93
Mozambique	0.00			35.13
Côte d'Ivoire				41.13
Namibia	55.80	56.00	48.00	43.10

Source: UNESCO-UIS, 2016 NCHE (NHESY 2013-2015)

Figure 2.2 Percentage of Student Enrolment in Business, Administration and Law Fields, 2012-2015



2.4.2 Education

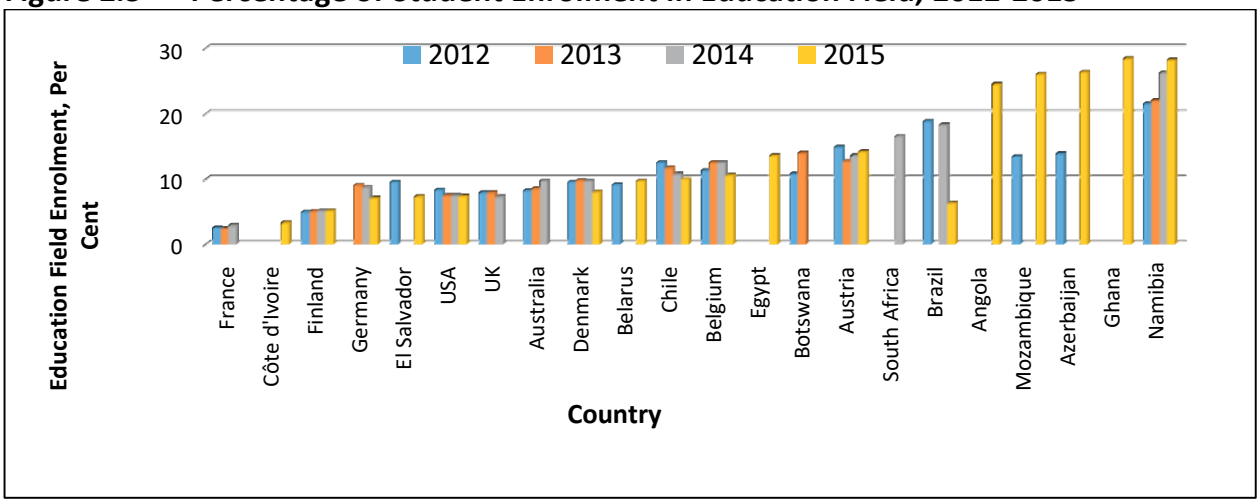
One of the notable features is the high percentage of enrolment in Education. As shown in Table 2.6 and Figure 2.3, Namibia stood at 28.3 per cent in 2015, which is one of the highest in the world. This figure has been increasing and would most likely retain the same trend.

Table 2.6 Percentage of Student Enrolment in Education Field, 2012-2015

Country	Academic Year			
	2012	2013	2014	2015
France	2.6	2.5	3	
Côte d'Ivoire				3.4
Finland	5	5.1	5.2	5.2
Germany		9.1	8.8	7.2
El Salvador	9.6			7.4
USA	8.4	7.6	7.6	7.5
UK	8	8	7.4	
Australia	8.3	8.6	9.8	
Denmark	9.6	9.9	9.8	8.1
Belarus	9.2			9.8
Chile	12.6	11.8	10.9	10.2
Belgium	11.4	12.6	12.6	10.7
Egypt				13.7
Botswana	10.9	14.1		
Austria	15	12.8	13.7	14.3
South Africa			16.6	
Brazil	18.9		18.4	6.4
Angola				24.6
Mozambique	13.5			26.1
Azerbaijan	14			26.4
Ghana				28.5
Namibia	21.6	22.1	26.3	28.3

Source: UNESCO-UIS, 2015; NCHE (NHESY 2013-2015)

Figure 2.3 Percentage of Student Enrolment in Education Field, 2012-2015



Source: UNESCO-UIS, 2015; NCHE (NHESY 2013-2015)

2.4.3 Engineering, Manufacturing and Construction

For Namibia, this field includes the following two NQF fields of learning:

- Manufacturing, Engineering and Technology; and
- Physical Planning and Construction.

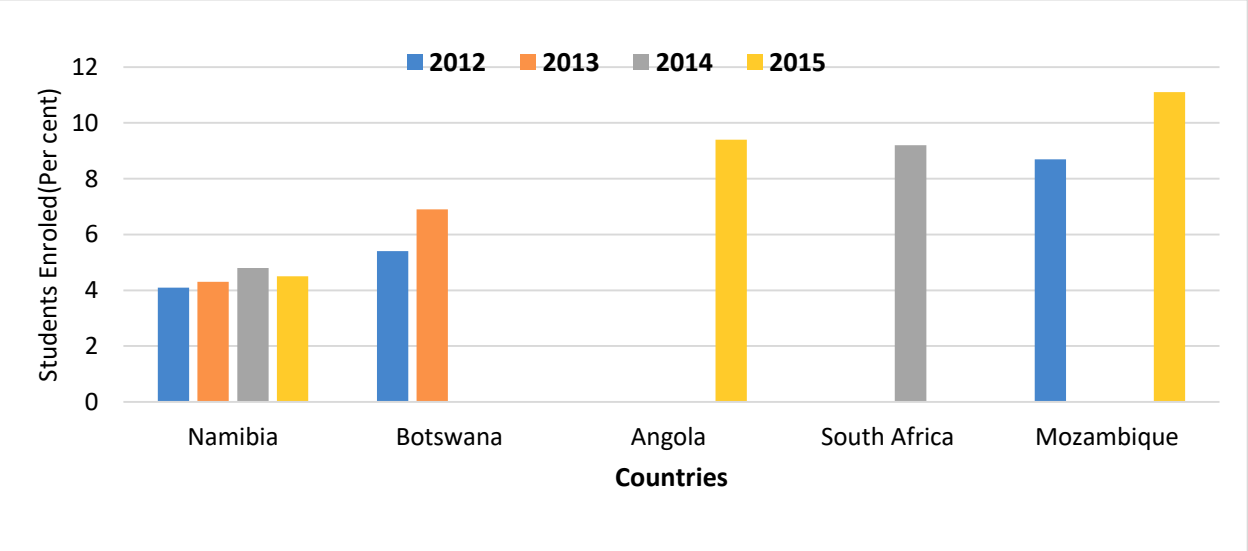
Namibia's enrolment in Engineering, Manufacturing and Construction of 4.5 per cent in 2015 is lower than some countries in the SADC region where data is available (Table 2.7). Figure 2.4 shows that Namibia has a long way to catch up with developed countries such as Chile and Finland, with a gap of at least 14.59 per cent in 2015.

Table 2.7 Percentage of Student Enrolment in Engineering, Manufacturing and Construction Fields, 2012-2015

Country	Academic Year			
	2012	2013	2014	2015
Namibia	4.1	4.3	4.8	4.5
Botswana	5.4	6.9		
Angola				9.4
South Africa			9.2	
Mozambique	8.7			11.1

Source: UNESCO-UIS, 2016; NCHE, NHESY 2013-2016

Figure 2.4 Percentage of Student Enrolment in Engineering, Manufacturing and Construction Fields, 2012-2015



2.4.4 Science

Namibia's enrolment in the science fields may be considered low (3.1 per cent) compared to other SADC countries such as Botswana and South Africa as well as other upper middle-income countries such as Albania and Algeria (Table 2.8). The percentage for Namibia includes the Physical, Mathematical and Life Sciences field but excludes Computer Science which was separated from Science to match the UIS groupings of the fields, for comparison puporse.

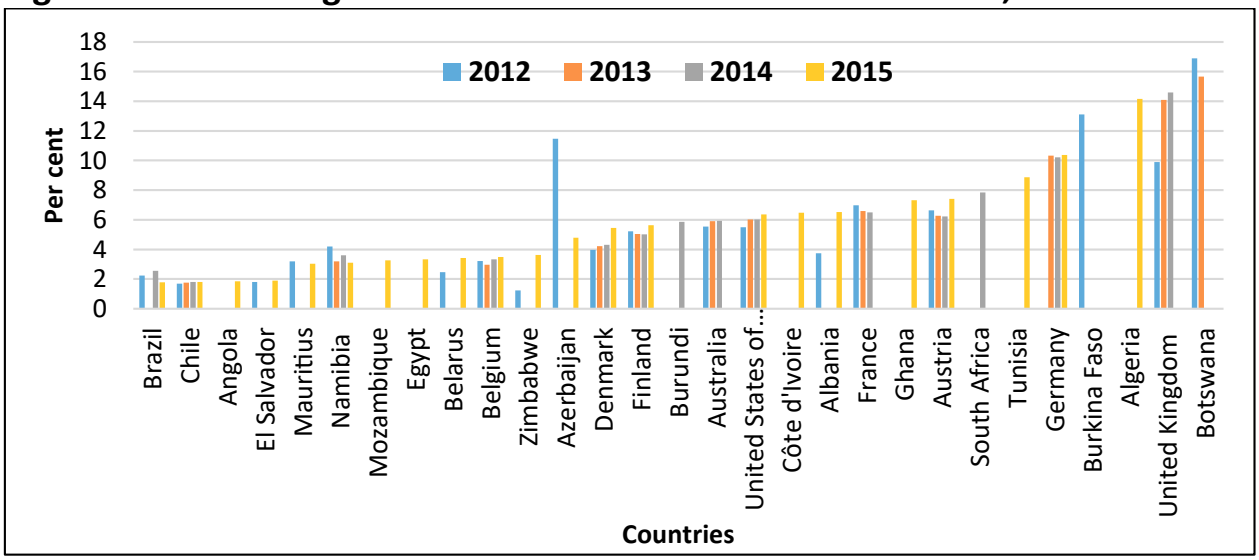
Figure 2.5 depicts the disparities in Science enrolments for both developing countries (e.g. Brazil, Namibia and Botswana) and developed countries (e.g. Finland and United Kingdom).

Table 2.8 Percentage of Students Enrolment in Science Fields, 2012-2015

Country	Academic Year			
	2012	2013	2014	2015
Brazil	2.2		2.6	1.8
Chile	1.7	1.8	1.8	1.8
Angola				1.9
El Salvador	1.8			1.9
Mauritius	3.2			3.0
Namibia	4.2	3.2	3.6	3.1
Mozambique	-			3.3
Egypt				3.3
Belarus	2.5			3.4
Belgium	3.2	3.0	3.3	3.5
Zimbabwe	1.2			3.6
Azerbaijan	11.5			4.8
Denmark	4.0	4.2	4.3	5.5
Finland	5.2	5.0	5.0	5.6
Burundi			5.9	
Australia	5.6	5.9	5.9	
United States of America	5.5	6.0	6.0	6.4
Côte d'Ivoire				6.5
Albania	3.7			6.5
France	7.0	6.6	6.5	
Ghana				7.3
Austria	6.6	6.3	6.2	7.4
South Africa			7.9	
Tunisia				8.9
Germany		10.3	10.2	10.4
Burkina Faso	13.1			
Algeria				14.2
United Kingdom	9.9	14.1	14.6	
Botswana	16.9	15.7		

Source: UNESCO-UIS, NCHE (NHESY 2012-2016)

Figure 2.5 Percentage of Student Enrolment in Science Fields, 2012-2015



2.4.5 Information Communication Technology

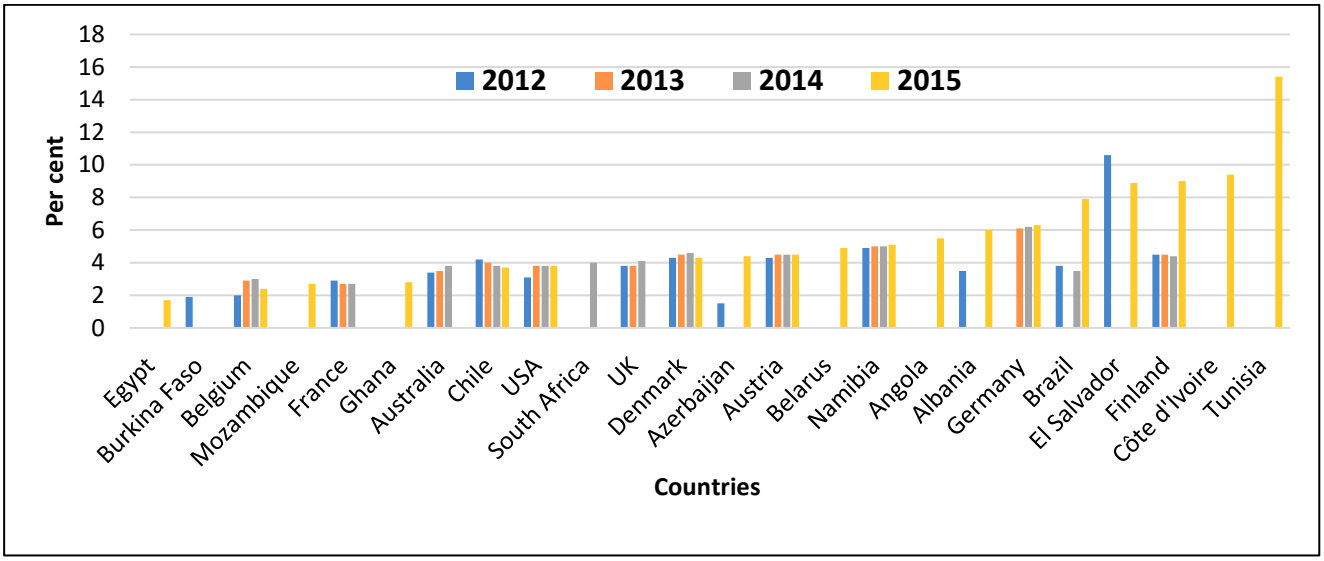
Table 2.9 presents Percentage of Enrolment in Information Communication Technology (ICT) for different countries. Namibia's proportional enrolment in ICT is better than most other upper middle-income countries such as Mozambique and South Africa. Figure 2.6 indicates that the share of enrolment for ICT between countries is at a minimum, below 10 per cent for many countries.

Table 2.9 Percentage of Students Enrolment in Information Communication Technology, 2012-2015

Country	Academic Year			
	2012	2013	2014	2015
Egypt				1.7
Burkina Faso	1.9			
Belgium	2.0	2.9	3.0	2.4
Mozambique				2.7
France	2.9	2.7	2.7	
Ghana				2.8
Australia	3.4	3.5	3.8	
Chile	4.2	4.0	3.8	3.7
USA	3.1	3.8	3.8	3.8
South Africa			4.0	
UK	3.8	3.8	4.1	
Denmark	4.3	4.5	4.6	4.3
Azerbaijan	1.5			4.4
Austria	4.3	4.5	4.5	4.5
Belarus				4.9
Namibia	4.9	5.0	5.0	5.1
Angola				5.5
Albania	3.5			6.0
Germany		6.1	6.2	6.3
Brazil	3.8		3.5	7.9
El Salvador	10.6			8.9
Finland	4.5	4.5	4.4	9.0
Côte d'Ivoire				9.4
Tunisia				15.4

Source: UNESCO-UIS, 2016; NCHE, NHESY 2012-2015

Figure 2.6 Percentage of Students Enrolment in Information Communication Technology, 2012-2015



Source: UNESCO-UIS, 2016; NCHE, NHESY 2012-2015

2.4.6 Gender Disparities with Respect to Fields of Learning

It was noted from Table 2.2 that in general, distribution by sex shows that female students dominate with an average of two female students for every male student and that is the trend observed in most countries. The disaggregation by field of learning indicates that enrolment trends are in favour of male students in most Science, Technological, Engineering and Mathematical (STEM) fields, while most female students enrol in the Health and Social Services fields (Table 2.10).

Table 2.10 Qualification Field by Sex in Namibia, 2012-2016

Qualification Field of Learning	2012				2013				2014				2015				2016			
	Number			% of Female	Number			% of Female	Number			% of Female	Number			% of Female	Number			% of Female
	Male	Female	Total		Male	Female	Total		Male	Female	Total		Male	Female	Total		Male	Female	Total	
Business, Commerce and Management Studies	6,984	11,527	18,511	62.3%	7,081	12,683	19,764	64.2%	7,426	11,999	19,425	61.8%	7,327	12,663	19,990	63.3%	643	1,288	1,931	66.7%
Communication Studies and Language	440	799	1,239	64.5%	447	831	1,278	65.0%	451	838	1,289	65.0%	506	953	1,459	65.3%	696	629	1,325	47.5%
Culture and the Arts	25	32	57	56.1%	27	29	56	51.8%	252	700	952	73.5%	38	34	72	47.2%	7,184	12,232	19,416	63.0%
Education, Training and Development	2,801	6,106	8,907	68.6%	2,800	6,893	9,693	71.1%	3,232	9,115	12,347	73.8%	3,385	10,648	14,033	75.9%	604	1,130	1,734	65.2%
Human and Social Studies	678	1,553	2,231	69.6%	676	1,640	2,316	70.8%	354	544	898	60.6%	568	1,140	1,708	66.7%	37	35	72	48.6%
Law, Military Science and Security	497	472	969	48.7%	559	531	1,090	48.7%	657	634	1,291	49.1%	743	659	1,402	47.0%	4,280	13,146	17,426	75.4%
Not stated	5	16	21	76.2%	0	1	1	100.0%												
TOTAL NON- STEM	11,430	20,505	31,935	64.2%	11,590	22,608	34,198	66.1%	12,372	23,830	36,202	65.8%	12,567	26,097	38,664	67.5%	13,444	28,460	41,904	67.9%
Agriculture and Nature Conservation	447	473	920	51.4%	368	390	758	51.5%	423	493	916	53.8%	487	559	1,046	53.4%	542	594	1,136	52.3%
Manufacturing, Engineering and Technology	992	298	1,290	23.1%	1,024	318	1,342	23.7%	1,232	571	1,803	31.7%	1,118	375	1,493	25.1%	1,317	369	1,686	21.9%
Health Sciences and Social Services	528	1,889	2,417	78.2%	483	1,757	2,240	78.4%	638	2,261	2,899	78.0%	749	2,409	3,158	76.3%	917	2,697	3,614	74.6%
Physical, Mathematical and Computer Sciences	2,069	1,716	3,785	45.3%	2,102	1,476	3,578	41.3%	2,233	1,818	4,051	44.9%	2,348	1,735	4,083	42.5%	2,477	1,695	4,172	40.6%
Physical Planning and Construction	240	166	406	40.9%	285	222	507	43.8%	234	215	449	47.9%	455	287	742	38.7%	504	315	819	38.5%
Services and Life Sciences	161	332	493	67.3%	357	781	1,138	68.6%	214	429	643	66.7%	144	322	466	69.1%	115	215	330	65.2%
TOTAL STEM	4,437	4,874	9,311	52.3%	4,619	4,944	9,563	51.7%	4,974	5,787	10,761	53.8%	5,301	5,687	10,988	51.8%	5,872	5,885	11,757	50.1%
TOTAL ALL FIELDS	**15,867**	**25,379**	**41,246**	**61.5%**	**16,209**	**27,552**	**43,761**	**63.0%**	**17,346**	**29,617**	**46,963**	**63.1%**	**17,868**	**31,784**	**49,652**	**64.0%**	**19,316**	**34,345**	**53,661**	**64.0%**

Source: NCHE, NHESY 2012-2015

CHAPTER 3: EFFICIENCY

3.1 Introduction

Efficiency in higher education is twofold: internal efficiency and external efficiency. Internal efficiency analyses the relationship between input and output, and external efficiency is judged by the relationship between input and outcome. To measure the relationship between input and output, indicators such as Retention (promotion and repetition) rates, Dropout rates and Graduation rates are considered. Other indicators such as Coefficient of Efficiency and Years–Input per Graduate help in the deeper understanding of internal efficiency. The former summarises the consequences of repetition and dropout on the efficiency of the educational process in producing graduates, and the latter assesses the extent of educational internal efficiency in terms of the estimated average number of years to be invested in producing a graduate.

The external efficiency relates to the contribution of higher education to the promotion of individuals and the achievement of national goals. A key justification for the substantial investment in education and training is the expected returns to individuals and societies. With respect to societies, education and training contribute to economic and social development.

Most indicators used for external efficiency include:

- Levels of employment and unemployment of graduates, which is a good indicator of the adequacy of higher education output to the needs of the society and the economy of the country;
- Private return on higher education which translates the level of benefit individuals gain from higher education;
- Social return on higher education, which translates the level of benefit the whole society gains from higher education.

Since it is not possible to achieve high outcome with low output, external and internal efficiencies are closely linked.It is not possible to expect satisfied external efficiency when internal efficiency is very low. Therefore, the importance of internal efficiency is not only due to itself, but also due to its medium role in external efficiency.

3.2 Internal Efficiency

3.2.1 Repetition Rate

Considering the internal efficiency of the higher education system, Table 3.1 shows that the percentage of repeaters is relatively high (21.6 per cent in 2016), indicating an upward trend of inefficiency when compared to 2012 (21.1 per cent). A repeater is a student who is registered for the same year of study as in the previous academic year.Male students portray a high repetition rate than female students.The total rate fluctuated between 21 and 24 per cent over the past five years (2012 to 2016).

Table 3.1 New and Repeaters by Sex in Each Academic Year, 2012-2016

New or Repeater	Number			% of Repeaters (*)		
	Male	Female	Total	Male	Female	All
2012						
New	10,554	16,494	27,048	21.70%	20.80%	21.10%
Repeater	2,920	4,320	7,240			
Not stated	2,393	4,565	6,958			
Total	15,867	25,379	41,246			
2013						
New	10,304	16,505	26,809	23.9%	22.9%	23.3%
Repeater	3,228	4,883	8,111			
Not stated	2,677	6,163	8,840			
Total	16,209	27,551	43,760			
2014						
New	10,594	17,629	28,223	26.6%	23.1%	24.4%
Repeater	3,839	5,293	9,132			
Not stated	2,913	6,695	9,608			
Total	17,346	29,617	46,963			
2015						
New	11,065	19,428	30,493	25.9%	22.3%	23.7%
Repeater	3,874	5,578	9,452			
Not stated	2,942	6,791	9,733			
Total	17,881	31,797	49,678			
2016						
New	14,653	25,534	40,187	23.4%	20.5%	21.6%
Repeater	4,475	6,578	11,053			
Not stated	188	2,233	2,421			
Total	19,316	34,345	53,661			

(*) Calculated excluding 'Not Stated'

Source: NCHE NHESY

3.2.2 Examination Results

The 2016 examination results show that 18.4 per cent of the students obtained a qualification and 22.6 per cent failed their examinations (Table 3.2). This percentage shows that repetition rate remains high as most of those students would repeat the following year. A total of 5,221 students graduated in 2012 and 9,888 in 2016.Many private higher education institutions did not submit examination results and as a result, the examination results were under-reported in 2012 to 2015. With the improvement in data submission, the pass rate increased from 33.5 per cent in 2012 to 48.7 per cent in 2016.

Table 3.2 Examination Results by Progression Status

Academic Year	2012		2013		2014		2015		2016	
Examinations Results	Number	%	Number	%	Number	%	Number	%	Number	%
Obtain Qualification	5,221	12.7%	5,787	13.2%	4,801	10.2%	5,403	10.9%	9,888	18.4%
Pass	13,828	33.5%	14,467	33.1%	17,468	37.2%	17,542	35.3%	26,146	48.7%
Fail	10,291	25.0%	10,562	24.1%	10,870	23.1%	12,002	24.2%	12,123	22.6%
Continuing	4,417	10.7%	4,433	10.1%	4,337	9.2%	4,811	9.7%	937	1.7%
Absent	1,817	4.4%	1,453	3.3%	1,649	3.5%	1,513	3.0%	2,267	4.2%
Not stated	5,672	13.8%	7,059	16.1%	7,838	16.7%	8,407	16.9%	2,300	4.3%
Total	41,246	100.0%	43,761	100.0%	46,963	100.0%	49,678	100.0%	53,661	100.0%

Source: NCHE NHESY, 2012-2016

Following the distribution of the enrolment, the rate of completing in Non-STEM fields remains high as it moved from 72.3 to 75.5 per cent in 2012 and 2016, respectively (Table 3.3b). Conversely, the completion rate from STEM fields declined from 27.7 in 2012 to 24.5 per cent in 2016. The comparison by gender follows the enrolment trend whereby more females graduated in the fields of Business, Commerce and Management; and Education, Training and Development as well as in Health Sciences. A larger proportion of male students completed studies in scientific and technological fields of learning.

Table 3.3(a) Completion of Studies by NQF Qualification Field of Learning and by Sex, 2012-2016 (Number)

Qualification Field of Learning	2012			2013			2014			2015			2016		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Agriculture and Nature Conservation	95	92	187	76	69	145	56	82	138	82	109	191	84	132	216
Manufacturing, Engineering and Technology	32	47	79	32	45	77	81	349	430	108	392	500	189	78	267
Health Sciences and Social Services	208	465	673	204	448	652	136	51	187	113	55	168	191	719	910
Physical, Mathematical and Computer Sciences	194	148	342	295	235	530	262	281	543	240	250	490	451	383	834
Physical Planning and Construction	41	32	73	49	52	101	35	33	68	76	66	142	92	60	152
Services and Life Sciences	30	60	90	64	170	234	26	45	71	14	43	57	13	29	42
TOTAL STEM	600	844	1,444	720	1,019	1,739	596	841	1,437	633	915	1,548	1,020	1,401	2,421
Business, Commerce and Management Studies	861	1,826	2,687	804	1,730	2,534	577	1,145	1,722	713	1,449	2,162	1,553	3,688	5,241
Communication Studies and Language	49	112	161	73	145	218	57	131	188	74	174	248	85	174	259
Culture and the Arts	1	3	4	6	3	9	24	97	121	6	7	13	9	9	18
Education, Training and Development	115	360	475	143	559	702	229	733	962	256	649	905	340	1,104	1,444
Human and Social Studies	80	173	253	96	209	305	52	113	165	112	213	325	71	172	243
Law, Military Science and Security	95	102	197	146	134	280	95	111	206	86	116	202	133	129	262
TOTAL NON - STEM	1,201	2,576	3,777	1,268	2,780	4,048	1,034	2,330	3,364	1,247	2,608	3,855	2,191	5,276	7,467
TOTAL	1,801	3,420	5,221	1,988	3,799	5,787	1,630	3,171	4,801	1,880	3,523	5,403	3,211	6,677	9,888

Source: NCHE NHESY, 2012-2016

Table 3.3(b) Completion of Studies by NQF Qualification Field of Learning and by Sex, 2012-2016 (Percentage)

Qualification Field of Learning	2012			2013			2014			2015			2016		
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Agriculture and Nature Conservation	5.3%	2.7%	3.6%	3.8%	1.8%	2.5%	3.4%	2.6%	2.9%	4.4%	3.1%	3.5%	2.6%	2.0%	2.2%
Manufacturing, Engineering and Technology	1.8%	1.4%	1.5%	1.6%	1.2%	1.3%	5.0%	11.0%	9.0%	5.7%	11.1%	9.3%	5.9%	1.2%	2.7%
Health Sciences and Social Services	11.5%	13.6%	12.9%	10.3%	11.8%	11.3%	8.3%	1.6%	3.9%	6.0%	1.6%	3.1%	5.9%	10.8%	9.2%
Physical, Mathematical and Computer Sciences	10.8%	4.3%	6.6%	14.8%	6.2%	9.2%	16.1%	8.9%	11.3%	12.8%	7.1%	9.1%	14.0%	5.7%	8.4%
Physical Planning and Construction	2.3%	0.9%	1.4%	2.5%	1.4%	1.7%	2.1%	1.0%	1.4%	4.0%	1.9%	2.6%	2.9%	0.9%	1.5%
Services and Life Sciences	1.7%	1.8%	1.7%	3.2%	4.5%	4.0%	1.6%	1.4%	1.5%	0.7%	1.2%	1.1%	0.4%	0.4%	0.4%
TOTAL STEM	33.3%	24.7%	27.7%	36.2%	26.8%	30.1%	36.6%	26.5%	29.9%	33.7%	26.0%	28.7%	31.8%	21.0%	24.5%
Business, Commerce and Management Studies	47.8%	53.4%	51.5%	40.4%	45.5%	43.8%	35.4%	36.1%	35.9%	37.9%	41.1%	40.0%	48.4%	55.2%	53.0%
Communication Studies and Language	2.7%	3.3%	3.1%	3.7%	3.8%	3.8%	3.5%	4.1%	3.9%	3.9%	4.9%	4.6%	2.6%	2.6%	2.6%
Culture and the Arts	0.1%	0.1%	0.1%	0.3%	0.1%	0.2%	1.5%	3.1%	2.5%	0.3%	0.2%	0.2%	0.3%	0.1%	0.2%
Education, Training and Development	6.4%	10.5%	9.1%	7.2%	14.7%	12.1%	14.0%	23.1%	20.0%	13.6%	18.4%	16.7%	10.6%	16.5%	14.6%
Human and Social Studies	4.4%	5.1%	4.8%	4.8%	5.5%	5.3%	3.2%	3.6%	3.4%	6.0%	6.0%	6.0%	2.2%	2.6%	2.5%
Law, Military Science and Security	5.3%	3.0%	3.8%	7.3%	3.5%	4.8%	5.8%	3.5%	4.3%	4.6%	3.3%	3.7%	4.1%	1.9%	2.6%
TOTAL NON - STEM	66.7%	75.3%	72.3%	63.8%	73.2%	69.9%	63.4%	73.5%	70.1%	66.3%	74.0%	71.3%	68.2%	79.0%	75.5%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: NCHE NHESY, 2012-2016

The distribution of students completing studies by qualification type shows a dominance of the undergraduate qualifications types (Certificates, Diplomas and Bachelor Degrees) while Masters and Doctorate degrees remain very low (Table 3.4).

Table 3.4 Completion of Studies by NQF Qualification Type 2012-2016

Qualification Type	2012		2013		2014		2015		2016	
	Number	%	Number	%	Number	%	Number	%	Number	%
Certificates	782	15.0%	661	11.4%	369	7.7%	212	3.9%	1,475	14.9%
Diplomas	1,321	25.3%	1,596	27.6%	817	17.0%	1,149	21.3%	2,513	25.4%
Bachelor's Degrees	1,759	33.7%	1,817	31.4%	1,759	36.6%	1,701	31.5%	1,629	16.5%
Bachelor Honours	599	11.5%	669	11.6%	612	12.7%	1,731	32.0%	2,707	27.4%
Professional Bachelor's Degrees	695	13.3%	934	16.1%	1,235	25.7%	535	9.9%	1,436	14.5%
Master's Degrees	56	1.1%	100	1.7%	9	0.2%	69	1.3%	126	1.3%
Doctorate Degrees	9	0.2%	10	0.2%		0.0%	6	0.1%	2	0.0%
Not stated	0	0.0%	0	0.0%		0.0%		0.0%		
Total	5,221	100.0%	5,787	100.0%	4,801	100.0%	5,403	100.0%	9,888	100.0%

Source: NCHE NHESY, 2012-2016

3.2.3 Students to Academic Staff Ratio

One of the main quality indicators that has direct impact on internal efficiency is the average number of students per lecturer. It is generally accepted that the lower this ratio is, the better the quality of the training. However, this indicator does not take into account factors which could affect the quality of teaching/ learning, such as differences in academic staff's qualifications, pedagogical training, experiences and status, teaching methods, teaching materials and variations in classroom conditions.

Table 3.5 presents the students to academic staff ratio which was 26 in 2012 but has since decreased to 17 in 2016. It was recorded at high rates in private higher education institutions during the two three years but has started easing from the third year where it dropped from 43 in 2015 to 19 students per academic staff in 2016.

Table 3.5 Students to Academic Staff Ratio for Namibia, 2012-2016

Type of HEI	Academic Staff	Students (FTE Number)	Students To Academic Staff Ratio
2012			
Public HEIs	1,391	29,117	21
Private HEIs	133	10,067	76
Total	1,524	39,184	26
2013			
Public HEIs	1,465	30,030	21
Private HEIs	134	11,513	86
Total	1,599	41,544	26
2014			
Public HEIs	1,950	31,723	16
Private HEIs	283	12,267	43
Total	2,233	43,990	20
2015			
Public HEIs	1,969	32,745	17
Private HEIs	345	13,051	38
Total	2,314	45,795	20
2016			
Public HEIs	2,317	37,159	16
Private HEIs	602	11,505	19
Total	2,919	48,664	17

Source: NCHE NHESY, 2012-2016

International comparisons show that Namibia's students to academic staff ratio is higher than in many countries (Table 3.6).

Table 3.6 Student to Academic Staff Ratio in Tertiary Education 2012-2015

Country	Academic Year			
	2012	2013	2014	2015
Austria	7.5	7.3	7.2	7.0
Norway	10.1	10.5	10.3	9.9
Congo	11.8	12.3		
United States of America	13.8	12.8	12.5	
Mozambique	14.3	12.2	15.2	
Chile	15.3	15.0		17.9
United Kingdom	17.9	16.4	15.5	
New Zealand	17.9	17.2	17.4	
El Salvador	17.8	18.9	18.5	18.1
Brazil	20.0	20.5	19.0	
Finland	19.1	18.9	19.3	
France	19.9	21.3		17.0
Namibia	26.0	26.0	20.0	24.0
Algeria	26.1	24.9	23.8	
Egypt		25.1	23.9	

Source: NCHE NHESY, 2012-2016

3.3 External Efficiency

3.3.1 Higher Education and Employment

The first aspect of the return on education, both on the private and the social sides lies in the effect of education on employment or (unemployment) of the person. Table 3.5 shows the unemployment rate by highest level of education as obtained from the Namibia Labour Force Survey. It shows that a person who graduated from tertiary and higher education has a greater probability of finding a job than a person with a secondary education or less. However, the unemployment rate for university graduates has been low (9.4 per cent) until 2014 when it increased steeply to 29.2 per cent in 2016 (Table 3.7). The recent surge might be attributed to economic downturn and particularly the nationwide moratorium on new recruitment in the public sector.

Table 3.7 Unemployment Rate by Highest Education Level by 2012-2016

Highest Education Level	Academic Year		
	2012	2014	2016
None	22.0	21.1	42.9
Primary	29.7	29.4	41.9
Junior Secondary	33.4	34.1	44.3
Senior Secondary	26.2	26.8	34.5
Undergraduate Certificate/Diploma	8.6	17.9	22.3
University Degree		6.9	19.9
Postgraduate Certificate /Diploma		0.9	7.4
University/ Postgraduates/ Academic Staff Training	4.7	9.4	29.2
Others Specify			34.8
Not Stated	20.8	22	31.2
Total	**27.4**	**28.1**	**38.3**

Source: NSA, Namibia Labour Force Surveys

3.3.2 Higher Education and Income

It is recognised that the return on education and training is much broader than earnings and, for the most part, not easily measurable. However, perceived earnings accrued to different types and levels of education are key determinants of willingness to invest in them. Table 3.8 presents the average annual net income per education level. The average annual net income of all other levels were compared to secondary level income and percentage comparisons are computed.

Table 3.8 Average Net Annual Income (N$) by Education Level by Year

Education Level	Academic Year		
	2012	2014	2016
None	12,282	21,401	26,705
Primary	20,678	30,334	24,677
Junior Secondary	26,452	33,856	38,255
Senior Secondary	68,723	103,899	98,555
Tertiary Education	219,694	261,387	218,673
Total (National)	57,196	79,391	76,902

Source: NSA, Namibia Labour Force Surveys, 2012, 2014, 2016

A person who graduated from tertiary and higher education is likely to earn more than an uneducated person or a person with secondary education. The average net income for a person with a tertiary and higher education level was 3.2 times the average net income of a person with senior secondary level (Grade 12) in 2012 and has since decreased to 2.2 times in 2016.

The National Graduate Survey for the three local universities (UNAM, NUST and IUM) which focused on the 2012 and 2013 cohorts also confirmed that there is a positive relationship between level of education and income. The study found that graduates who achieved a Diploma or Certificate as highest level of education reported an average monthly income of N$14,295 compared to N$17,449 of the Bachelor's graduates. There were no income differences between the Bachelor and Honours levels, while the monthly income of the few graduates with a Masters degree was much higher (N$27,715).

CHAPTER 4: STAFF

While academic staff is in itself a higher education indicator, it also has a direct influence on other indicators.This is so because the primary duties for academic staff include, among others, curriculum development, effective teaching, advising and counselling of students, and applied research.It is therefore important that the academic staff capacity and distribution by mode of offering is monitored on a regular basis.

Table 4.1 presents the academic staff by offering type at both public and private HEIs.Public HEIs academic staff have grown from 1,707 in 2012 to 3,311 in 2016. Due to under-reporting of private HEIs staff data, it would be inconsistent to compare earlier data to 2016 data.

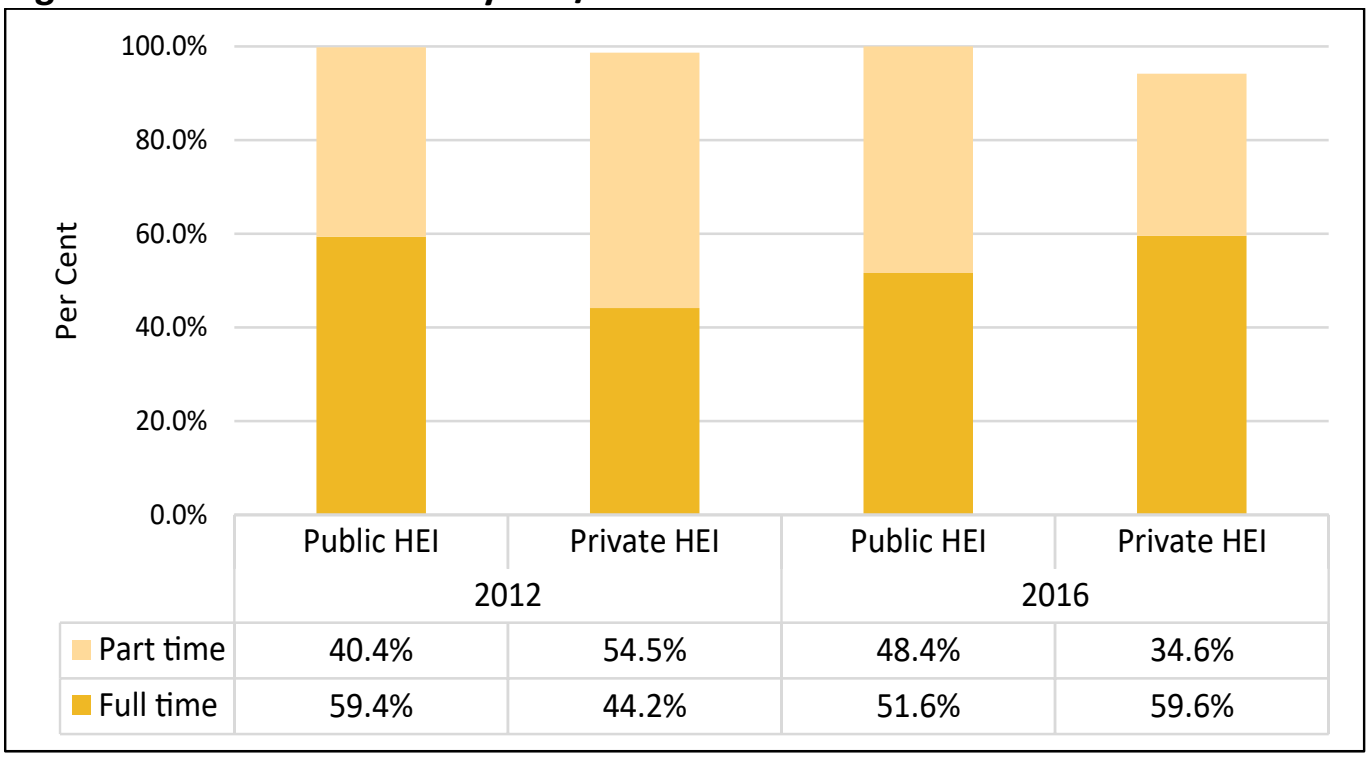
Table 4.1 Academic Staff by Full-/Part-Time and HEIs 2012-2016

Type of HEI	Number				%			
	Full Time	Part Time	Not Stated	Total	Full Time	Part Time	Not Stated	Total
2012								
Public HEIs	921	627	3	1,551	59.4%	40.4%	0.2%	100.0%
Private HEIs	69	85	2	156	44.2%	54.5%	1.3%	100.0%
Total	990	712	5	1,707	58.0%	41.7%	0.3%	100.0%
2013								
Public HEIs	962	670	0	1,632	58.9%	41.1%	0.0%	100.0%
Private HEIs	68	88	1	157	43.3%	56.1%	0.6%	100.0%
Total	1,030	758	1	1,789	57.6%	42.4%	0.1%	100.0%
2014								
Public HEIs	1,063	1,183	9	2,255	47.1%	52.5%	0.4%	100.0%
Private HEIs	186	129	0	315	59.0%	41.0%	0.0%	100.0%
Total	1,249	1,312	9	2,570	48.6%	51.1%	0.4%	100.0%
2015								
Public HEIs	1,580	519	598	2,697	58.6%	19.2%	22.2%	100.0%
Private HEIs	305	53		358	85.2%	14.8%	0.0%	100.0%
Total	1,885	572	598	3,055	61.7%	18.7%		100.0%
2016								
Public HEIs	1,330	1,248	0	2,578	51.6%	48.4%	0.0%	100.0%
Private HEIs	331	192	32	555	59.6%	34.6%	5.8%	100.0%
Total	1,661	1,440	32	3,133	53.0%	46.0%	1.0%	100.0%

Source: NCHE NHESY, 2012-2016

The full-time academic staff were 59.4 per cent at public higher education institutions compared to 40.4 per cent of part-time academic staff in 2012. By 2016, the part-time academic staff proportions at public higher education institutions has increased to 48.4, thus the full-time is reduced to 51.6 per cent (Figure 4.1)

Figure 4.1 Academic Staff by Full/ Part Time 2012 and 2016



	2012		2016	
Part time	40.4%	54.5%	48.4%	34.6%
Full time	59.4%	44.2%	51.6%	59.6%

Source: NCHE (NHESY 2012 & 2016)

4.1 Academic Staff Highest Level of Qualification

Table 4.2 presents the distribution of the academic staff by level of qualification. Despite an increase from 262 to 502 between 2012 and 2016, the percentage of lecturers with Doctorate degrees was still low as it remains around 15 per cent over the period. The proportion in public higher education institutions hovered between 14 and 18 over the five years.

Table 4.2 Academic Staff Qualification by Academic Year, 2012-2016

Level of Qualification	Number			Per Cent		
	Public HEIs	Private HEIs	Total	Public HEIs	Private HEIs	Total
2012*						
Bachelor Degree	243	45	288	15.7%	28.8%	16.9%
Bachelor Honours and Professional Bachelor Degree	117	30	147	7.5%	19.2%	8.6%
Masters Degree	585	41	626	37.7%	26.3%	36.7%
Doctoral Degree	250	12	262	16.1%	7.7%	15.3%
Not Stated	356	28	384	23.0%	17.9%	22.5%
Total	1,551	156	1,707	100%	100%	100%
2013*						
Bachelor Degree	257	46	303	15.7%	29.3%	16.9%
Bachelor Honours and Professional Bachelor Degree	107	28	135	6.6%	17.8%	7.5%
Masters Degree	611	42	653	37.4%	26.8%	36.5%
Doctoral Degree	270	10	280	16.5%	6.4%	15.7%
Not Stated	387	31	418	23.7%	19.7%	23.4%
Total	1,632	157	1,789	100%	100%	100%
2014						
Bachelor Degree	326	65	391	14.5%	20.6%	15.2%
Bachelor Honours and Professional Bachelor Degree	127	90	217	5.6%	28.6%	8.4%
Masters Degree	897	102	999	39.8%	32.4%	38.9%
Doctoral Degree	342	23	365	15.2%	7.3%	14.2%
Not Stated	533	35	568	23.6%	11.1%	22.1%
Total	2,255	315	2,570	100.0%	100.0%	100.0%
2015						
Bachelor Degree	485	87	572	18.0%	24.4%	18.7%
Bachelor Honours and Professional Bachelor Degree	142	41	183	5.3%	11.5%	6.0%
Masters Degree	873	116	989	32.4%	32.6%	32.4%
Doctoral Degree	368	32	400	13.6%	9.0%	13.1%
Not Stated	829	80	909	30.7%	22.5%	29.8%
Total	2,697	358	3,055	100.0%	100.0%	100.0%
2016						
Bachelor Degree	342	62	404	13%	9%	12%
Bachelor Honours and Professional Bachelor Degree	320	149	469	12%	22%	14%
Masters Degree	866	239	1,105	33%	35%	33%
Doctoral Degree	461	41	502	18%	6%	15%
Not Stated	640	191	831	24%	28%	25%
Total	2,629	682	3,311	100%	100%	100%

Source: NCHE NHESY, 2012-2016

**Private HEIs' staff data were under reported in 2012 and 2013*

CHAPTER 5: COST AND FINANCING

5.1 Introduction

Money is important for quality higher education. Spending more money does not necessarily mean doing better. But, better quality requires a minimum number of resources. This Chapter presents some important indicators in relation to funding higher education.

These indicators address some important aspects:

- The percentage of GDP devoted to public expenditure on higher education denotes the level of attention given to investment in higher education by the government;
- Government expenditure on higher education as a percentage of total government ex penditure helps in assessing government's policy emphasis on higher education relative to the perceived value of other public investments. It reflects also the commitment of a government to invest in human capital development;
- Public expenditure on higher education as a proportion of total government expenditure on education reflects the level of priority given to that educational level in national educational policies and resource allocation;
- Public Expenditure for student financial assistance as a percentage of current public ex penditure on higher education denotes the effort of the public authority to make higher education affordable for the population; and
- Average amount of tuition fees as a percentage of GDP per capita helps in assessing the affordability of higher education for the population.

Apart from the amounts dedicated to the higher education sector, the way these resources are distributed among beneficiaries (higher education institutions) is very important. This is exactly the issue that has been addressed by the adoption of the Funding Framework in 2013.

5.2 Public Expenditure on Higher Education as a Percentage of Gross Domestic Product

Total public expenditure on higher education (current and capital) expressed as a percentage of the GDP, shows the proportion of a country's wealth generated during a given financial year that has been spent by government authorities on higher education. In principle, a high percentage of GDP devoted to public expenditure on higher education denotes a high level of attention given to investment in higher education by the government; and vice versa.

Total public expenditure on higher education refers to all expenditure on higher education by the central government, state governments, provincial or regional administrations and expenditure by municipal and other local authorities. Central government includes ministerial departments, agencies and autonomous institutions, which have education responsibilities. The statistics on expenditure should cover transactions made by all departments or services with education responsibilities at all decision-making levels.

In this report, in some instances (including Namibia), data on total public expenditure on higher education refers only to the resources allocated through the ministry in charge of higher education, excluding other public institutions that spend a part of their budget on educational activities.

Table 5.1 presents public expenditure as a percentage of Gross Domestic Product (GDP). The total public expenditure on higher education as a percentage of GDP increased from 1.85 per cent in 2012 to 2.17 per cent in 2016.

Table 5.1 Total Public Expenditure on Higher Education as a Proportion of GDP

Expenditure	Financial Year				
	2012/13	2013/14	2014/15	2015/16	2016/17
Total Public Expenditure on HE (Current and Capital N$)	1,974,685,901	2,066,049,000	2,783,221,346	3,928,454,000	3,498,488,000
GDP(Current Prices, millions N$)	106,864	122,792	138,763	147,635	161,030
Total public expenditure on higher education as a % of GDP	1.85%	1.68%	2.01%	2.66%	2.17%

Source: Estimate of Revenue, Income and Expenditure 2014/15, 2015/16, 2016/17, 2017/18; 2016 National Accounts

When compared to other countries, Namibia occupies a high position, even higher than some developed nations (Table 5.2). Data on many countries is missing and thus this comparison is limited to countries that had data available.

Table 5.2 Expenditure on Higher Education as a Percentage of GDP 2015

Country	Per cent
Namibia	2.7
Finland*	2.0
Sweden*	1.9
Austria*	1.8
New Zealand	1.6
Tunisia	1.6
Australia*	1.4
Malaysia	1.4
United Kingdom of Great Britain and Northern Ireland	1.3
Chile*	1.3
Republic of Korea	1.1
Ghana*	1.1
Argentina*	1.1
Benin	1.0
Mali*	0.8
South Africa*	0.7
Burkina Faso	0.6
Armenia	0.4

Source: UNESCO-UIS, NCHE(NHESY 2015)

** 2014 Data*

5.3 Government Expenditure on Higher Education as a Percentage of Total Government Expenditure

The purpose of this indicator is to assess government's policy emphasis on higher education relative to the perceived value of other public investments. It also reflects the commitment of a government to invest in human capital development. A higher percentage of government expenditure on higher education shows a high government policy priority for education relative to the perceived value of other public investments.

The figures presented in Table 5.3 show government expenditure on higher education in the range of 4.4 to 6 per cent. However, due to the economic volatility, it is also noted that expenditure as proportion of total government expenditure shows a declining trend from 2015 to 2016.

Table 5.3 Total Public Expenditure on Higher Education as a Proportion of Total Government Expenditure

Expenditure	Financial Year				
	2012/13	2013/14	2014/15	2015/16	2016/17
Total Public Expenditure on Higher Education (Current and Capital N$)	1,974,685,901	2,066,049,000	2,783,221,346	3,928,454,000	3,498,488,000
Total Government Expenditure (Current and Capital N$)	38,113,591,217	46,867,702,400	58,846,235,969	64,611,428,365	61,495,149,000
Total Public Expenditure on Higher Education as a % of Total Government Expenditure	5.18%	4.41%	4.73%	6.08%	5.69%

Source: Estimate of Revenue, Income and Expenditure 2014/15; 2015/16; 2016/17; 2017/18

When compared to other countries, with 6.08 per cent in 2015, Namibia appears to be one of the top countries, which invest a substantial proportion of its national budget into higher education (Table 5.4).

Table 5.4 Government Expenditure on Higher Education as a Percentage of Total Government Expenditure

Country	Financial Year			
	2012/13	2013	2014/15	2015/16
Mauritius	1.2	1.2	1.5	1.3
Armenia	1.2	1.2	1.3	1.4
South Africa	2.5	2.4	2.3	..
Mozambique	2.4	2.6	..	..
Burkina Faso	2.8	3.5	2.4	2.5
Peru	2.6	2.6	2.3	2.8
Argentina	3.1	3.1	3	..
United Kingdom of Great Britain and Northern Ireland	..	3.1	3.3	3.2
Finland	3.7	3.5	3.4	..
Austria	3.6	3.5	3.4	..
Australia	3.1	3.6	3.7	..
Benin	6.2	4.7	4.5	3.9
New Zealand	5	4.6	4.5	4.6
Chile	4.2	5		4.9
Malawi	..	5.8	3.5	5.2
Malaysia	5.7	5.9	5.4	5.4
Tunisia	5.8	5.5	5.7	5.7
Namibia	5.2	4.4	4.7	6.1

Source: UNESCO-UIS, Namibia's Estimate of Revenue, Income and Expenditure 2014/15, 2015/16, 2016/17, 2017/18

5.4 Public Expenditure on Higher Education as a Proportion of Total Government Expenditure on Education

This indicator is used to show the relative share of expenditure for higher education level within overall public expenditure on education. A relatively high percentage denotes the priority given to that level in national educational policies and resource allocation.

Expenditure on higher education as a proportion of overall educational expenditure dropped from 21.2 per cent in 2012 to 18.2 per cent in 2013 but rapidly increased to 24.9 per cent in 2015 before declining again to 22.1 per cent in 2016 (Table 5.5).

Table 5.5 Total Public Expenditure on Higher Education as a Percentage of Total Government Expenditure on Education 2012-2016

Expenditure	Financial Year				
	2012/13	2013/14	2014/15	2015/16	2016/17
Total Public Expenditure on Higher Education (Current and Capital N$)	1,974,685,901	2,066,049,000	2,783,221,346	3,928,454,000	3,498,488,000
Total Government Expenditure on Education (Current and Capital N$)	9,307,788,969	11,378,442,607	13,457,121,828	15,751,712,000	15,821,160,000
Total Public Expenditure on Higher Education as a % of Total Government Expenditure on Education	21.2%	18.2%	20.7%	24.9%	22.1%

Source: Namibia's Estimate of Revenue, Income and Expenditure 2014/15, 2015/16, 2016/17, 2017/18

At global level, Namibia's expenditure on higher education as a proportion of education for 2015 was higher than most countries in Sub-Saharan Africa (Rwanda: 20.9 per cent; Benin 22.2; Malawi: 24.2 per cent) and developed countries such as the United Kingdom (Table 5.6).

Table 5.6 Government Expenditure on Higher Education as a Percentage of Total Government Expenditure on Education 2012-2015

Country	Financial Year			
	2012/13	2013/14	2014/15	2015/16
Armenia	9.5	10.3	13.6	12.7
Australia	23.7	26.0	26.5	..
Austria	33.3	32.3	32.5	..
Belarus	17.9	17.6	16.9	16.8
Benin	24.8	21.0	20.4	22.2
Burundi	20.6	24.2	..	..
Chile	21.1	25.6	24.7	25.7
Ethiopia	46.8	42.7	..	..
Finland	28.6	28.0	27.9	..
Ghana	18.5	19.4	18.3	..
Malawi	..	28.4	21.6	24.2
Mozambique	12.2	13.7	..	..
Namibia	21.2	18.2	20.7	24.9
Rwanda	13.3	14.0	..	20.9
South Africa	11.9	12.4	12.2	..
Sweden	25.3	25.4	25.3	..
United Kingdom of Great Britain and Northern Ireland	..	24.0	20.3	22.8

Source: UNESCO-UIS, Namibia's Estimate of Revenue, Income and Expenditure 2014/15; 2015/16; 2016/17; 2017/18

5.5 Public expenditure for Student Financial Assistance as a Percentage of Current Public Expenditure on Higher Education

The purpose of this indicator is to measure the share of student financial assistance within public current expenditure on higher education. It translates the willingness of public authorities to ease access to higher education. A high percentage of spending for student financial assistance denotes the effort of public authorities to make higher education affordable for the population.

The expenditure for student financial assistance as a proportion of the current public expenditure on higher education is at an average of 33.9 per cent for the period of 2012 to 2016. There was a decline of 1.85 per cent from 2015 to 2016 (Table 5.7).

Table 5.7 Public Expenditure for Student Financial Assistance as a Proportion of Current Public Expenditure on Higher Education

Expenditure	Financial Year				
	2012/13	2013/14	2014/15	2015/16	2016/17
Public Expenditure for Student Financial Assistance	620,610,579	613,812,000	843,668,000	1,406,331,658	1,192,860,274
Current Public Expenditure on Higher Education	1,703,693,857	1,986,243,918	2,696,313,346	3,879,651,000	3,467,973,000
Public Expenditure for Student Financial Assistance as % of Current Public Expenditure on Higher Education	36.43%	30.90%	31.29%	36.25%	34.40%

Source: Namibia's Estimate of Revenue, Income and Expenditure 2014/15, 2015/16, 2016/17, 2017/18

5.6 Average Amount of Tuition Fees as a Percentage of GDP per Capita

The purpose of this indicator is to measure the share of per capita income spent on one student. It helps in assessing the affordability of higher education for the population. A high percentage figure for this indicator denotes a high share of per capita income spent by families for higher education.

This indicator can exceed 100 per cent in countries where the GDP per capita is low and the current tuition fees per student is high. In this report, due to lack of data, the average tuition fee is calculated only for public higher education institutions.

The average amount of tuition fees as a percentage of GDP per capita in public higher education institutions declined from 26.05 per cent in 2015 to 24.48 per cent in 2016 (Table 5.8).Important to note is that the Government policy stance is to retain the average Tuition Fees in public higher education institutions within 25 per cent of GDP per capita.

Table 5.8 Average Amount of Tuition Fees as a Percentage of GDP per Capita in Public HEIs 2012-2016

Tuition Fees	Financial Year				
	2012/13	2013/14	2014/15	2015/16	2016/17
Average Tuition Fees	11,268.00	13,824.00	15,192.10	16,859.57	16,960.80
GDP per Capita (Current Prices)	49,579	55,914.00	62,006.00	64,732.00	69,279.00
Average Amount of Tuition Fees as Percentage of GDP per Capita	22.73%	24.72%	24.50%	26.05%	24.48%

Source: 2016 National Accounts; NCHE

ANNEXURE: GLOSSARY

Coefficient of Efficiency: The ideal (optimal) number of student-years required (i.e. in the absence of repetition and dropout) to produce a number of graduates from a given cohort for a cycle or level of education expressed as a percentage of the actual number of student-years spent to produce the same number of graduates. Input-output ratio, which is the reciprocal of the coefficient of efficiency, is often used as an alternative.

Disparity: A lack of equality or similarity, especially in a way that is not fair.

Dropout Rate: The number of students who left school/college/university before completing a qualification as a percentage of those who were enrolled in the academic year they last enrolled in.

Efficiency: The good use of resources, time and energy.

Experience: The number of years worked by a person since he/she has left school.

Employment Rate: The share of the labour force that is employed, expressed as a percentage.

External Efficiency: The private and social benefits derived from investment in education. Typically, these are measured by private and social economic rates of return.

Graduates: These are students who completed their studies in a specific academic year.

*Graduation Rate:*The percentage of a school's first-time, first-year undergraduate students who complete their programme within 150% of the published time for the programme. For example, for a four-year degree programme, entering students who complete within six years are counted as graduates.

Gross Enrolment Ratio (Tertiary): Total student enrolment in tertiary education regardless of age, expressed as a percentage of the age group of 19–23 years in the population corresponding to tertiary education in a given academic year.

Internal Efficiency: This is a process that concerns the optimal use of resources (inputs) in producing its outputs. Assessments of internal efficiency are typically done for a specific level of education, say higher education, and the simplest indicator of internal efficiency is the unit cost of producing one unit of educational output, which may be a graduate of that level of education, or a student who has attained some minimum level of knowledge.

Net Income: This is an individual main source of net income per month.

Repetition Rate: The proportion of students from a cohort enrolled in a given year of study at a given academic year who study in the same year of study in the following academic year.

Student to Academic Staff Ratio: The average number of students per academic staff expressed as a percentage.

Unemployment Rate: The share of the labour force that is jobless, expressed as a percentage. The employed population consists of all persons (15 years and above) who are not in employment and are available for work during the reference period (the week preceding the interview). The broad definition was used.

NOTES

NOTES

National Council for Higher Education
Erf 6445 & 6446, C/O Hoogenhout and Haddy Street
Windhoek
NAMIBIA

P O Box 90890
Klein Windhoek
Namibia

Tel: +264 61 30 7012
Fax: +264 61 30 7014
Email: hemis@nche.org.na