

## **The Preamble**

This Report looks at Ghana's Human Resource Development (HRD). It provides an analysis and insight into various sectors of Human Resourcing. To begin with, the tertiary institutions, which comprises the Universities( Public and Private) and the Polytechnics are analyzed. This is in terms of graduate intake and output, the unit cost per student, that is the cost involved in producing a graduate. The effective capacity of the institutions is also analyzed. The effective capacity, referring to, the saturation capability of these institutions i.e. how much students they can absorb and if this is related to their Admission Offers or the Annual Intake.

- Public Universities [Analysis from 1997-2002,Undergraduates & Postgraduates]
- Student Unit Cost, Universities [Undergraduates & Postgraduates]
- Private Universities
- Polytechnics [Analysis from 1997-2002,Undergraduates]

## [1] Public Universities [Analysis from 1997-2002, Undergraduates]

Tertiary education, facilitates the main channels where most of the country's human resource are developed. In other words these tertiary institutions, tend to nurture human resource that are deployed in the country's economy, thus it is no doubt that tertiary education is a requisite for national development. It is also essential because these institutions generate the necessary human capital needed to fit into the diverse sectors of the economy. The Public Universities under discussion are: University of Ghana, University of Cape Coast, Kwame Nkrumah University of Science and Technology, University College of Education and University of Development Studies.

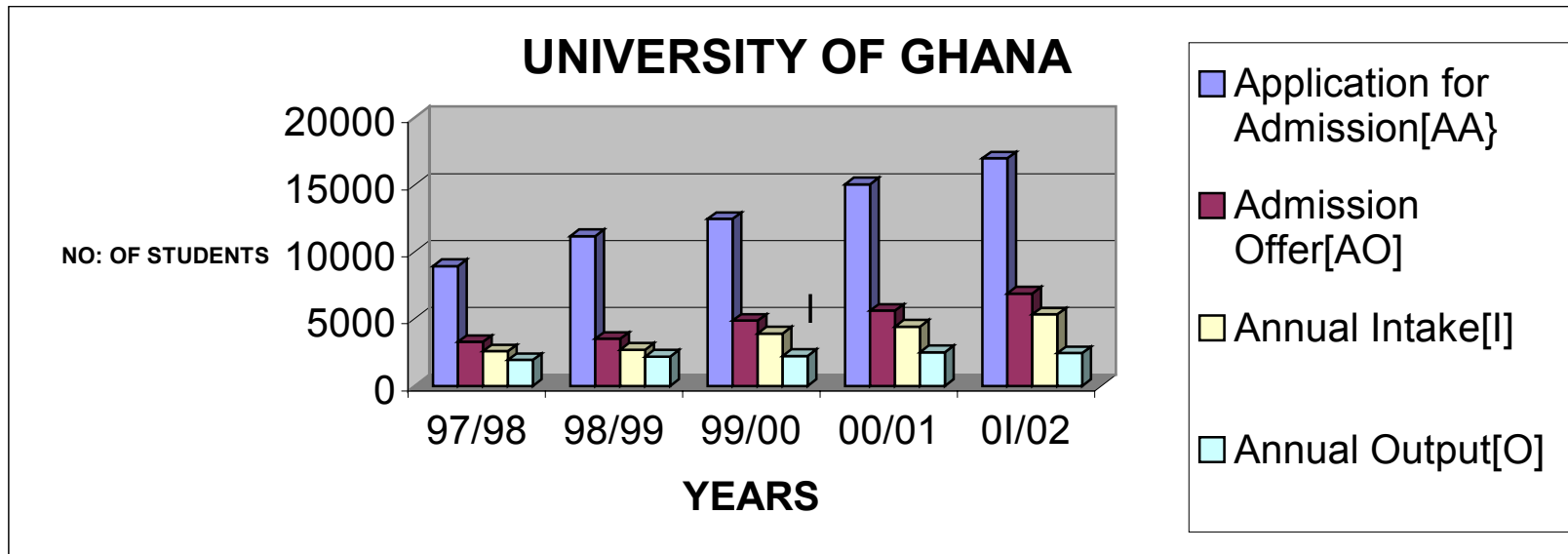
Information was acquired from the National Council for Tertiary Education (NCTE) and the Universities. The tables and diagrams below display the intake and output capacity of graduates, over a five-year period (1997-2002). This is analyzed in terms of Application for Admission, Application Qualified, Admission Offered, Intake and Output (Annually).

**Table 1.1: University of Ghana, 1997-2002**

<b>UNIVERSITY OF GHANA</b>					
	<b>97/98</b>	<b>98/99</b>	<b>99/00</b>	<b>00/01</b>	<b>01/02</b>
<b>Application for Admission[AA]</b>	8953	11195	12466	15051	17004
<b>Application Qualified [AQ]</b>	-----	-----	-----	-----	-----
<b>Admission Offer [AO]</b>	3301	3534	4873	5607	6902
<b>Annual Intake [I]</b>	2578	2699	3919	4427	5327
<b>Annual Output [O]</b>	1940	2189	2242	2521	2459
<b>AO/AA</b>	36.8%	31.5%	39%	37.2%	40.5% <b>[AVG:29.2%]</b>
<b>I/AA</b>	28.7%	24.1%	31.4%	29.4%	31.3% <b>[AVG:28.9%]</b>

**Source:** University of Ghana

**Figure 1: University of Ghana, 1997-2002**



In Table 1.1, figures have been acquired in the various categories. Comparing this to the other universities, the Application Qualified element is missing, because its Admission Offers replaces those qualified. From the office of the registrars, it claims that all those who submit their applications have qualified status. Due to some limited resources, offers are made to a few applicants. In terms of the offers, In the initial years of 97/98 its application figures was at 8953. This has steadily risen at a current figure of 17004 in the year 01/ 02. This depicts an increasing rate of Application for Admissions. As a result of this its Admission Offers has seen a steady rise from 3301 in 97/98 to 6902 in 01/ 02.

Chart 1, clearly depicts the figures shown in the table.

Making a comparison in terms of the percentage Admission offers as per Application for Admissions. In 97/98 the percentage comparison between the Applications for Admissions as per Admissions Offers was 36.8%. As a result of an increase, in 01/ 02 it was at 40.5%. On the average scale, Admission Offers as per Application for Admission was 29.2%. Annual Intakes as per Application for Admission was 28.9%

The UOG states that, offers given out are 30% above the required and accepted figure. Although its Effective capacity is based on Admission Offers.

**Table 1.2: University of Cape Coast, 1997-2002**

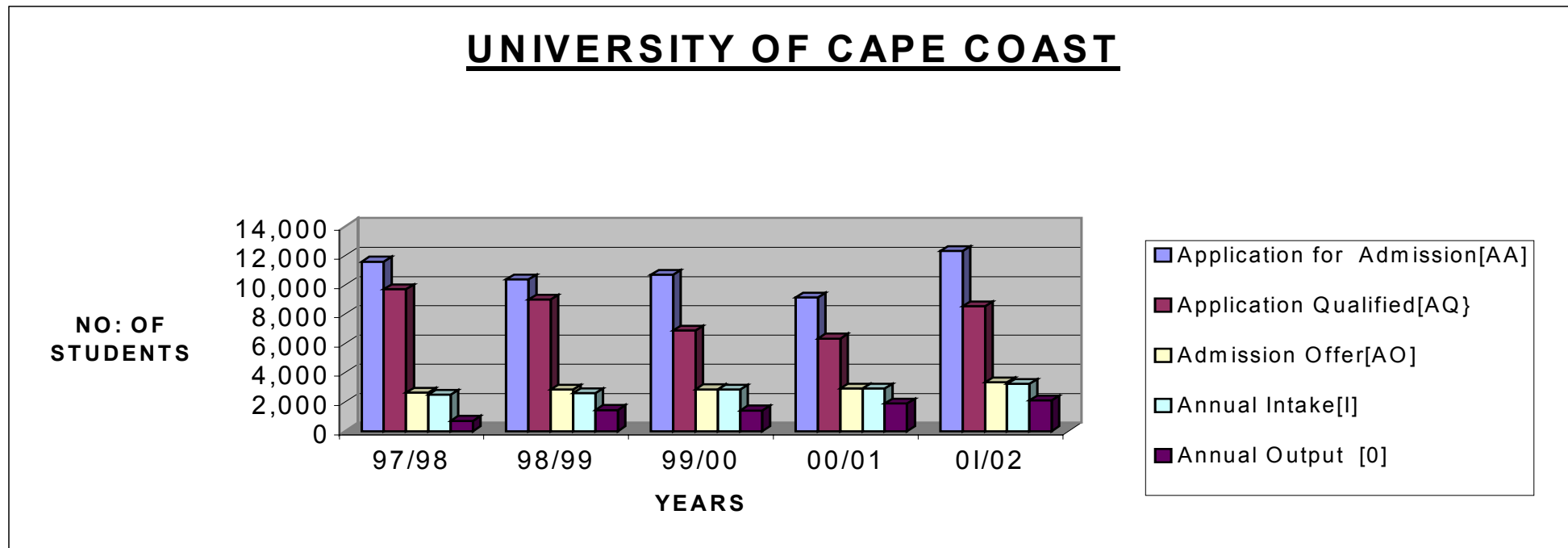
<b>UNIVERSITY OF CAPE COAST</b>					
	<b>97/98</b>	<b>98/99</b>	<b>99/00</b>	<b>00/01</b>	<b>01/02</b>
<b>Application for Admission[AA]</b>	11,602	10,367	10,695	9,141	12,316
<b>Application Qualified[AQ]</b>	9,718	9005	6878	6329	8531
<b>Admission Offer[AO]</b>	2634	2841	2859	2919	3351
<b>Annual Intake [I]</b>	2500	2607	2854	2914	3224
<b>Annual Output [O]</b>	704	1445	1411	1885	2107
<b>AQ/AA</b>	83.7%	86.8%	64.3%	69.2%	69.2% <b>[AVG: 74.6%]</b>
<b>AO/AQ</b>	27.1%	27.4%	41.5%	46.1%	39.2% <b>[AVG: 36.2%]</b>
<b>I/AQ</b>	25.7%	28.9%	41.4%	46%	37.7% <b>[AVG: 26.8%]</b>

**Source:** University of Cape Coast

Most Universities tend to encounter quite a large number of applications for admission, because of the rush for student admissions. In table [1.2], University of Cape Coast, at the beginning of the academic year 97/98 had it's application for admissions at a total of 11,602. It decreased slightly the following two years, but very high in the year 2001/2002 with a figure of 12,316. According to the Deputy Registrar (Academic), the university's "Effective Capacity" with respect to admissions, refers to the number of fresh students that could be admitted without putting undue pressures on the existing physical structures i.e. lecture theatres is based on its Admission Offers. In other words if all those offered admission turn up, they can be absorbed by the university. Comparisons were made between the various categories (Application for Admissions, Qualified. Offers and intakes) in terms of percentages. In the year 97/98, the Application qualified as per Application for Admissions is 83.7%. There was a slight increase in

the following year, but started to decrease in the three conservative years. This is due to the decreasing number in qualified applicants in the university.

**Figure 2: University of Cape Coast, 1997-2002**



Another comparison made was the Admissions Offers per Applications Qualified. In the initial year of 97/98, Offers as per Qualified was at 27.1%. This figure rose steadily to 46.1% in the year 00/01, but declined slightly in 01/02 with a figure of 39.2%.

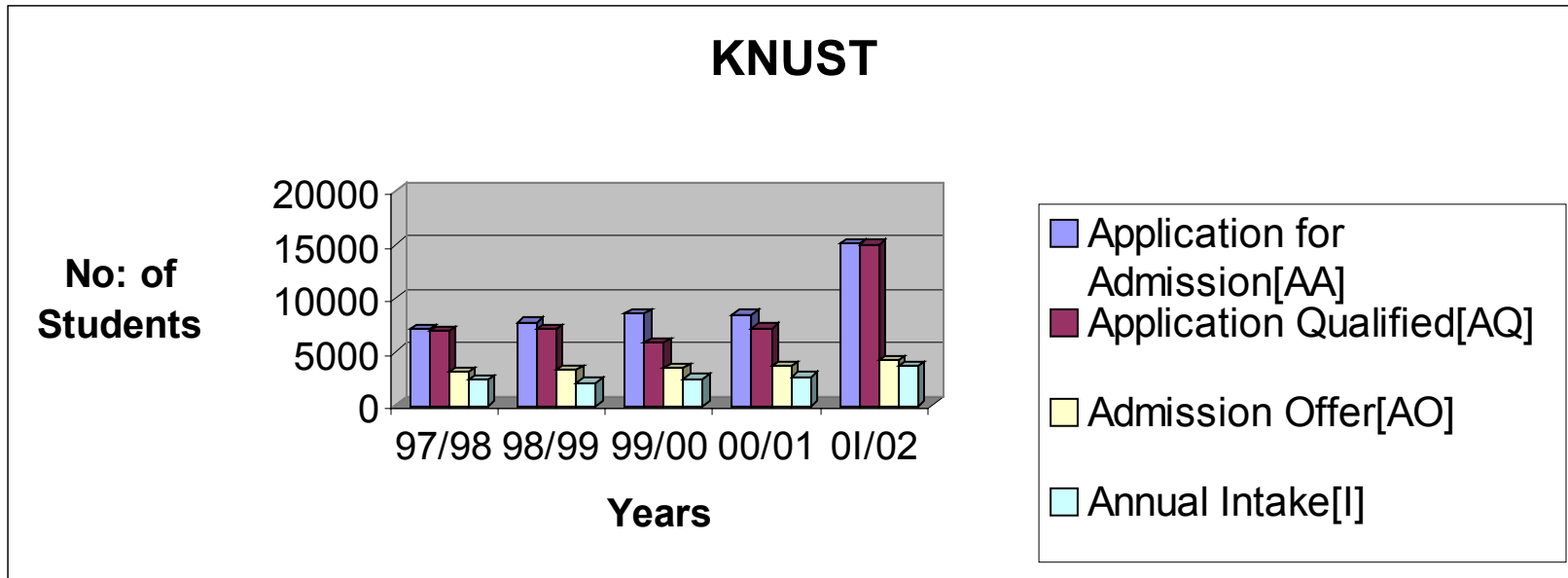
On the average scale, Application Qualified as per Application for Admissions through the five-year period was 74.6%; Admission Offers as per Application Qualified was 36.2%. Annual intake as per Application Qualified was 26.8%.

**Table 1.3: Kwame Nkrumah University for Science and Technology, 1997-2002**

<b>KNUST</b>					
	<b>97/98</b>	<b>98/99</b>	<b>99/00</b>	<b>00/01</b>	<b>01/02</b>
<b>Application for Admission [AA]</b>	7082	7742	8576	8498	15036
<b>Application Qualified [AQ]</b>	6956	7090	5843	7226	15026
<b>Admission Offer [AO]</b>	3112	3302	3512	3687	4232
<b>Annual Intake [I]</b>	2392	2156	2465	2631	3652
<b>Annual Output</b>	2326	942	1269	1602	1852
<b>AQ/AA</b>	98.2%	91.5%	68.1%	85%	99% <b>[AVG: 88.3%]</b>
<b>AO/AQ</b>	44.7%	46.5%	60.1%	51%	28.1% <b>[AVG: 46%]</b>
<b>I/AQ</b>	34.3%	30.4%	42.1%	36.4%	24.3% <b>[AVG: 33.5%]</b>

**Source:** Kwame Nkrumah University of Science and Technology

**Figure 3: Kwame Nkrumah University for Science and Technology, 1997-2002**



From the office of the Registrar, KNUST confirmed that its Effective Capacity is used to determine admission quotas for its various programmes, thus its Total Admission Offers is therefore dependent on the Effective Capacity. Under normal circumstances the Total Admission Offers always exceeds the Total Annual Intake (the number of applicants who accept their offers). At worst the two can only be equal.

Making reference to Table 1.3, Applications for Admission was at a figure of 7082, this has been rising steadily over the years, reaching a figure of 15,036 in the academic year of 2001/2002. The Applications Qualified were those who had the correct qualification, but no admission being offered. At the year of 1997/1998 it was at a figure of 6956, gradually rising to 15026 at the year of 2001/2002. Admission Offers also saw an upward rise as well as Annual Intake.

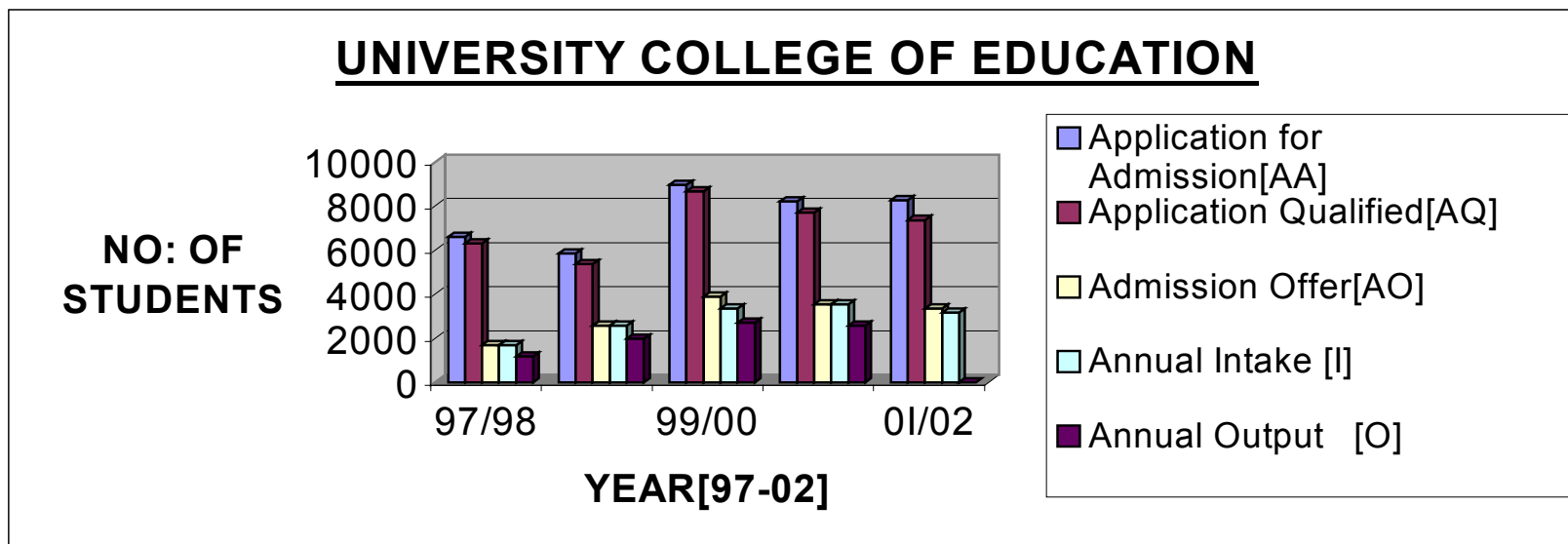
On the average per percentage comparisons. Application Qualified as per Application for Admissions is 83.3%. Admission Offer as per Application Qualified is 46%. Annual Intake as per Application Qualified is 33.5%.

**Table 1.4: University College of Education, 1997-2002**

<b>UNIV. COLLEGE OF EDUCATION</b>					
	<b>97/98</b>	<b>98/99</b>	<b>99/00</b>	<b>00/01</b>	<b>01/02</b>
<b>Application for Admission [AA]</b>	6599	5845	8963	8216	8260
<b>Application Qualified [AQ]</b>	6311	5367	8676	7697	7364
<b>Admission Offer [AO]</b>	1687	2565	3894	3534	3354
<b>Annual Intake [I]</b>	1508	2235	3340	3300	3155
<b>Annual Output [O]</b>	1176	1980	2701	2580	-----
<b>AQ/AA</b>	95.6%	91.8%	96.7%	93.6%	89.1% <b>[AVG93.3%:]</b>
<b>AO/AQ</b>	26.7%	47.7%	44.8%	45.9%	45.5% <b>[AVG42.2%:]</b>
<b>I/AQ</b>	23.8%	41.6%	38.4%	38.1%	42.8% <b>[AVG: 36.9%]</b>

Source: University College of Education, Winneba

**Figure 4: University College of Education, 1997-2002**



The University College of Education, Winneba, states its concept of Effective Capacity as being dependent on its Annual Intake (being those who admitted and enroll with the institution). It all states inconsistency in their intakes since it keeps rising each year, since some departments tend to offer more or less than expected. The Registrar explained that in years in years of 1997 and 1998 its figures for Total Admission Offer were the same as that of its Total Annual Intake.

In its early academic year of 1997, the application for admission was at a figure of 6,599. It decreased the following academic year, but began rising steadily. At the year of 2002, it had reached a figure of 8,216. From the application for admission, there are qualified applicants.

Comparisons as per average percentages were as follows: Application Qualified as per Application Admission is 93.3%. Application Offer as per Application Qualified is 42.2%, Annual Intakes as per Application Qualified was 36.9%, thus indicating those who were admitted and registered into the institution as per qualified applicants.

**Table 1.5: University For Development Studies, 1997-2002**

<b>UNIV. FOR DEVELOPMENT STUDIES</b>					
	<b>97/98</b>	<b>98/99</b>	<b>99/00</b>	<b>00/01</b>	<b>01/02</b>
<b>Application for Admission [AA]</b>	849	883	1154	842	1673
<b>Application Qualified [AQ]</b>	683	684	676	742	1503
<b>Admission Offer [AO]</b>	169	209	175	190	433
<b>Annual Intake [I]</b>	158	180	167	163	402
<b>Annual Output [O]</b>	37	85	31	62	116
<b>AQ/AA</b>	80.4%	77.4%	58.5%	88.1%	89.3% <b>[AVG: 78.7%]</b>
<b>AO/AQ</b>	24.7%	30.5%	25.8%	25.6%	28.8% <b>[AVG: 27%]</b>
<b>I/AQ</b>	23.1%	26.3%%	24.7%	21.9%	28.8% <b>[AVG: 24.9%]</b>

**Source: University for Development Studies, Tamale.**

**Figure 5: University For Development Studies, 1997-2002**

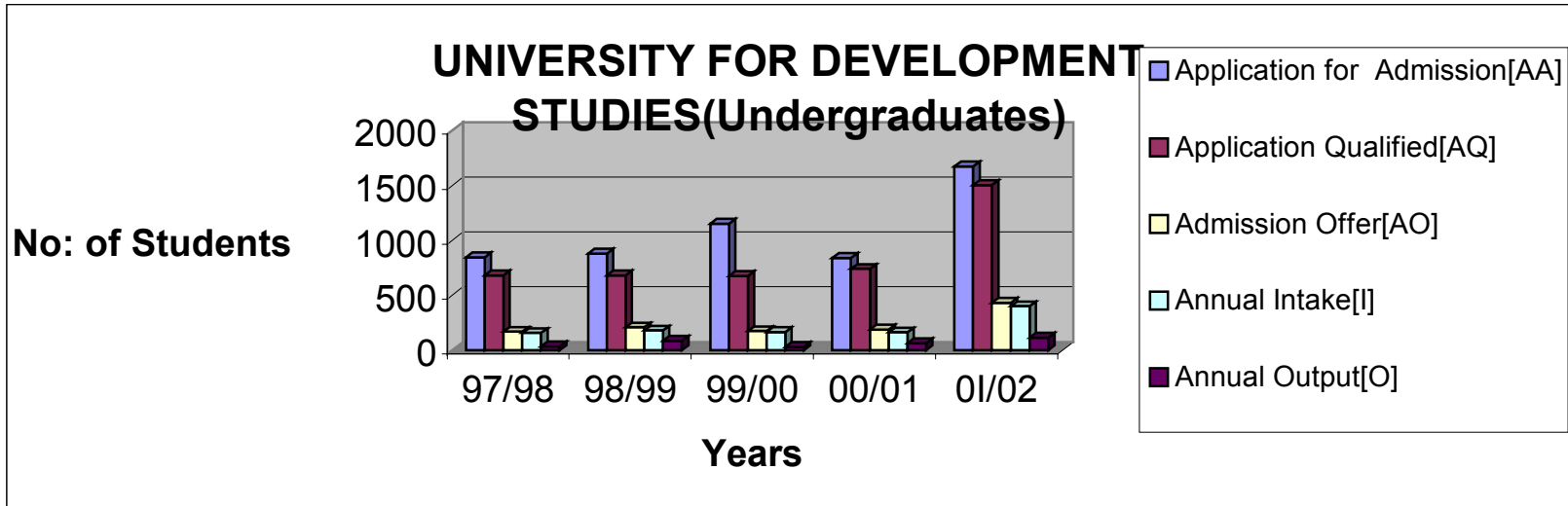


Table 1.5 displays figures for the University for Development Studies. Average per percentages were as follows: Application Qualified as per Application for Admission was 78.7%, Admission Offer as Application Qualified was 27% and Annual Intake as per Application Qualified was 24.9%.

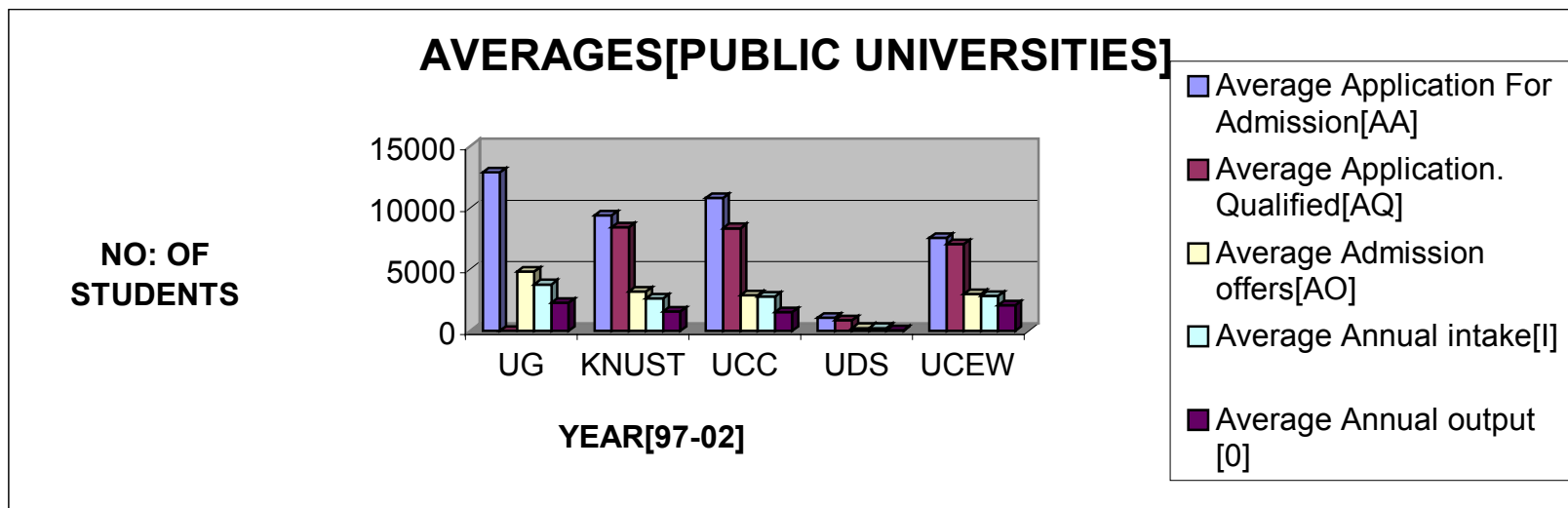
## AVERAGE VALUES OF UNDERGRADUATES FOR THE PUBLIC UNIVERSITIES

**Table 1.6: Average Values & Comparison's (Per Percentage)**

	Average Application For Admission[AA]	Average Application. Qualified[AQ]	Average Admission offers[AO]	Average Annual intake[I]	Average Annual output [O]	AQ/AA	AO/AQ	[I/AQ]
UG	12934	-----	4843	3792	2270	<sup>1</sup> 37.4%[AO/AA]	-----	*78.2%[I/AO]
KNUST	9387	8429	3196	2659	1598	89.7%	37.9%	31.5%
UCC	10824	8364	2920	2819	1510	72.7%	26.9%	26%
UDS	1080	858	235	234	66	79.4%	27.3%	27.2%
UCEW	7576	7083	3007	2856	2109	93.4%	42.4%	40.3%
<b>TOTAL AVG.</b>	<b>8360</b>	<b>6183</b>	<b>2840</b>	<b>2472</b>	<b>1510</b>	<b>83.8%</b>	<b>33.6%</b>	<b>40.6%</b>

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**Figure 6: Average Values & Comparison's (Per Percentage)**



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Through the five-year trend (1997-2002) of the Public tertiary institutions, there are quite a number of comparisons to be made. Application rates for the. As a result of this, In Table1.6, the average figures were derived for the various divisions i.e Average Application for Admission, Average Application qualified, Average Admissions Offers, Average Annual Intake and Average Annual Output.

For instance the University of Ghana , throughout the five year period, its Application for Admission is on an average of 12934 being the largest of all the other universities. KNUST had an Average of 9387. University of Cape Coast(UCC) had on the average 10,834 applicants, UDS had 1080 applicants and UCEW with a figure of 7576 applicants averagely.

After deriving the average for the various categories, comparisons are made between them. Referring to the University of Ghana in Table 1.6, there is the omission of Application Qualified, since they are referred to Admission Offers. As a result of this, comparisons are made between percentages of Admission offered as per Application for Admissions.

On the total average of the five universities over the five-year period, the Average Application for Admissions is 8360, (This is on the basis of average annual figures). Average Application Qualified is 6183. Average Admission Offers is 2840. Average Annual Intake is 2472. Average Annual Output is 1510.

### **Tertiary Institutions- Human Resource Development in the Universities [Public] POSTGRADUATES.**

Postgraduate education is a level in tertiary institutions, that tends to contribute immensely to the human resource development in the economy. Postgraduates are educated to a higher and professional level, thus equipping them to fill in higher positions and being very productive in the economy.

Below are the figures for postgraduates in the public universities(1997-2002- in terms of Application for Admission, Application Qualified, Admission Offer, Annual Intake and Annual Output.

**Table [1.7]**

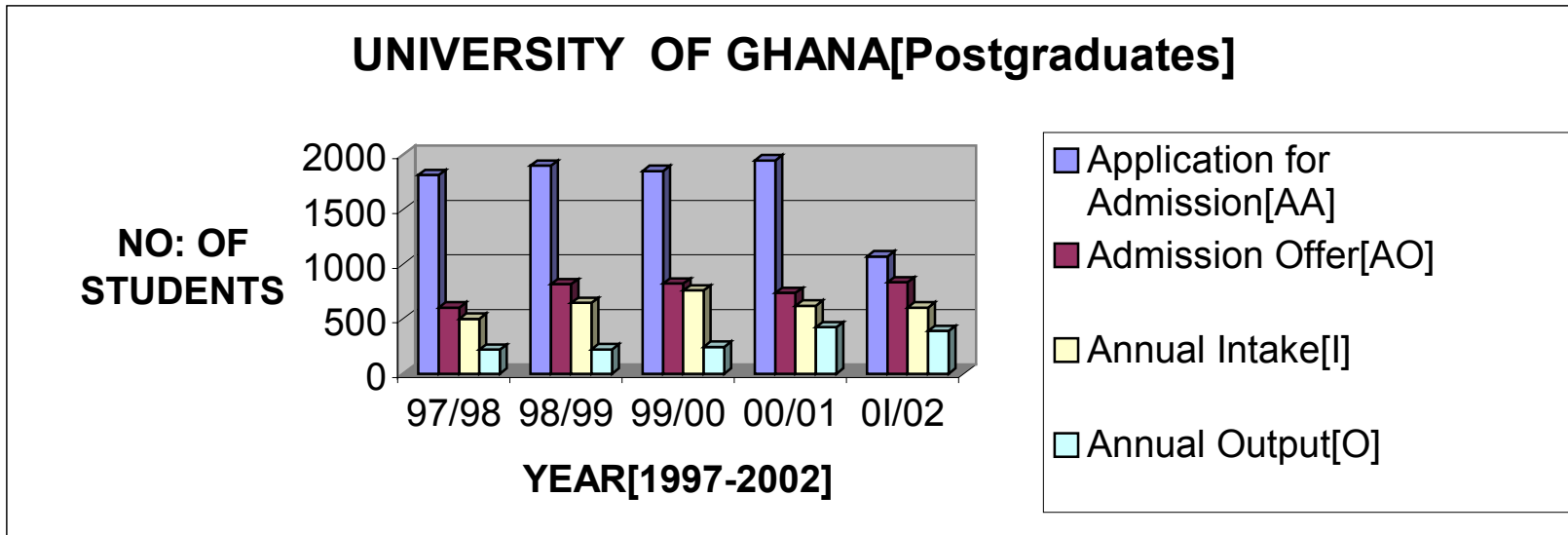
<b>UNIVERSITY OF GHANA</b>					
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission [AA]</b>	1841	1900	1853	1949	1072
<b>Application Qualified [AQ]</b>	-----	-----	-----	-----	-----
<b>Admission Offer [AO]</b>	603	818	824	739	834
<b>Annual Intake [I]</b>	500	646	760	620	603
<b>Annual Output [O]</b>	220	223	246	423	391
<b>AO/AA</b>	32.2%	43%	44.4%	37.9%	<b>77.7%[Avg:47%]</b>
<b>I/AA</b>	27.1%	34.1%	41%	31.8%	<b>56.2% [Avg:38%]</b>

Source: University of Ghana

From the Registrars office of the University of Ghana, it was stated that all those who apply for admission hold qualified status. No figures are held on qualified applicants. It is from these figures, that offers are given. Admissions Offers., Often go beyond what the university can offer, not all applicants take up their offers. Those that are finally registered into the university are thus, far less than admission offers.

Over the five year period, the application for admission has being on an up and down trend, from 1814 in 1997/1998 to 1949 in 2000/2001, slightly declining to 1072 in 2001/2002. Admission Offers also rose from 603 in 1997/1998 to 834 in the year 2001/2002. On the Average Offers as per Application for Admission is **47.1%**. Annual intake as per Application for Admission is **38%**. This implies that percentage of intakes as to applications for admission.

**Chart 6**



Postgraduate intake for the year 1997/1998 was at a figure of 500. This increased through the other years, but decreased in the year 2001/2002 to 603 intakes. The Chart clearly states the trend of postgraduate students at University of Ghana.

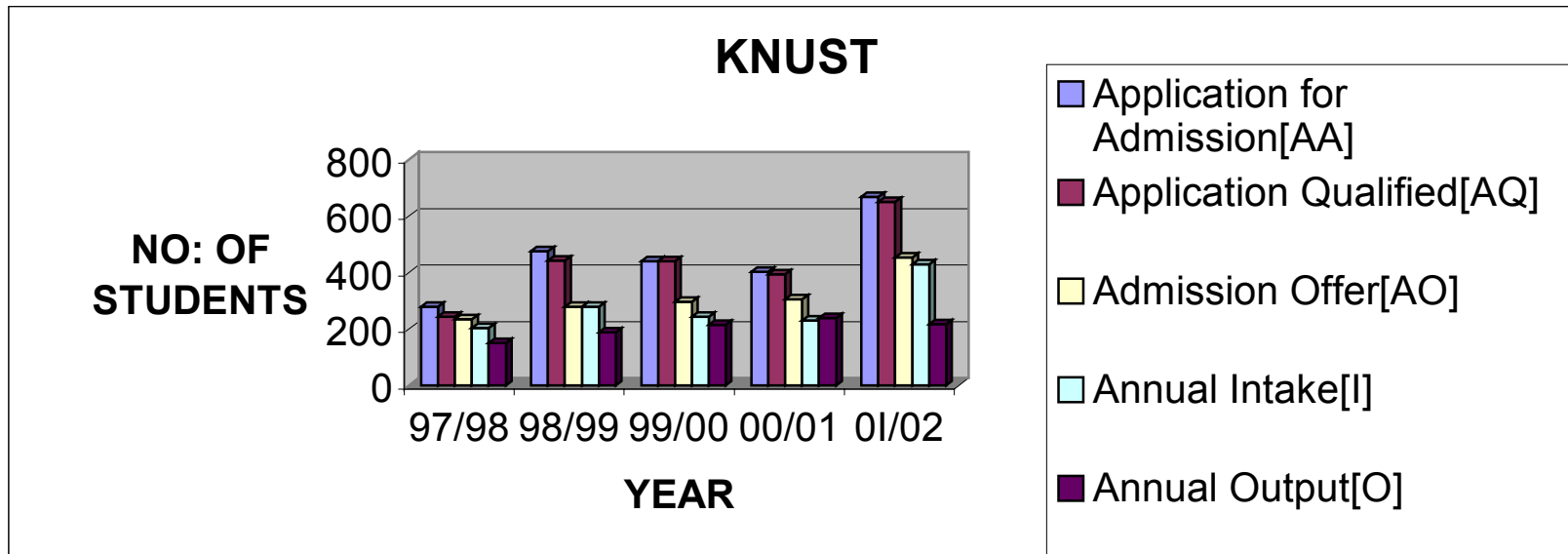
**Table[1.8]**

<b>KNUST</b>					
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission [AA]</b>	280	476	440	403	670
<b>Application Qualified [AQ]</b>	243	444	400	394	652
<b>Admission Offer [AO]</b>	235	280	298	305	454
<b>Annual Intake [I]</b>	205	280	243	231	429
<b>Annual Output [O]</b>	152	188	216	240	217
<b>AQ/AA</b>	86.7%	93.2%	90%	97.7%	97.3%
<b>AO/AQ</b>	96.7%	63%	67.7%	75.6%	69.6% <b>[Avg:74.5%]</b>
<b>I/AQ</b>	84.3%	63%	55.2%	58.6%	65.9% <b>[Avg:65.4%]</b>

Source: KNUST

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**Chart 7**



According to the office of the registrar of KNUST, The Effective capacity is used to determine admission quotas for the various programmes. The Effective Capacity is therefore dependent on the Admission Offers. It was also stated that, under normal circumstances the Total Admission Offers always exceeds the Total Annual Intake( the number who accept offers).At worst the two can only be equal. Making comparisons as per average percentages on the five-year period, Admission Offers as per Admission Qualified is 74.5% and Intake as per Admission Qualified is 65.4%( This implies that, on the average from all qualified applicants only 65.4% are registered as intakes.

**Table[1.9]**

<b>UNIVERSITY OF EDUCATION, WINNEBA(Postgraduates)</b>					
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission [AA]</b>	----	----	11	----	15
<b>Application Qualified [AQ]</b>	----	----	----	----	
<b>Admission Offer [AO]</b>	----	----	----	----	
<b>Annual Intake [I]</b>	----		<b>NO POSTGRADUATES</b>		
<b>Annual Output [O]</b>					
<b>AQ/AA</b>					
<b>AO/AQ</b>					
<b>I/AQ</b>					

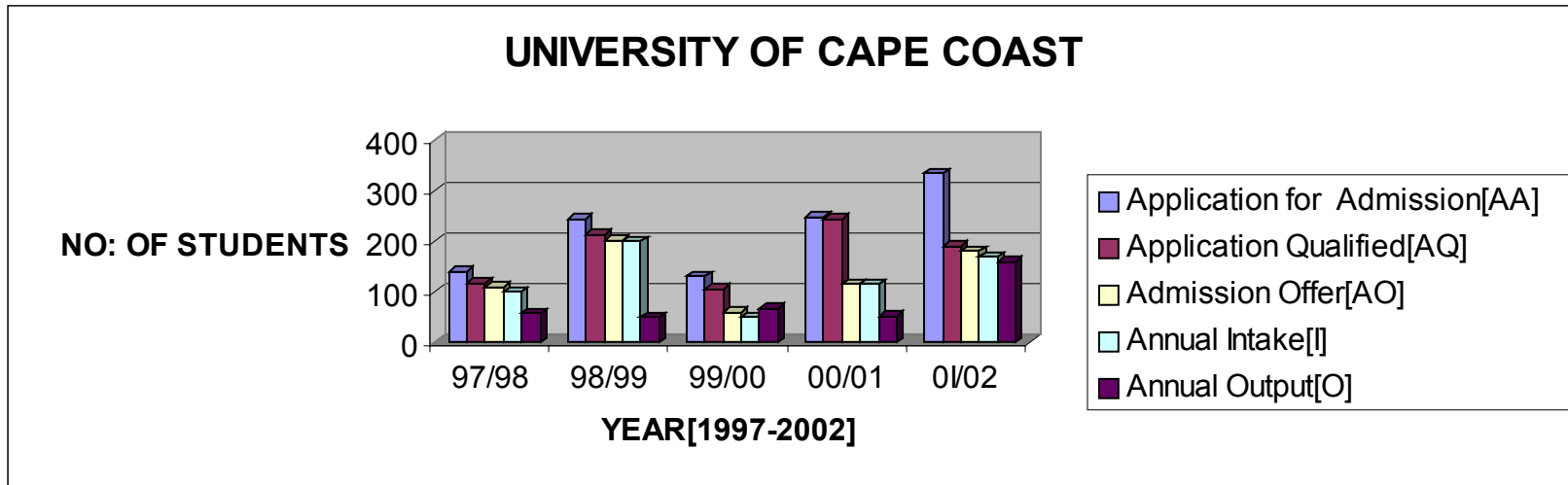
Source: University of Education

**Table[1.10]**

<b>UNIV. OF CAPE COAST</b>					
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission[AA]</b>	140	245	130	248	335
<b>Application Qualified[AQ]</b>	118	213	105	244	190
<b>Admission Offer[AO]</b>	102	202	60	116	180
<b>Annual Intake[I]</b>	70	90	50	116	130
<b>Annual Output[O]</b>	57	50	67	52	----
<b>AQ/AA</b>	84.2%	86.9%	80.7%	98.3%	56.7% <b>[Avg:81.3%]</b>
<b>AO/AQ</b>	86.4%	94.8%	57.1%	47.5%	94.7% <b>Avg:76.1%</b>
<b>I/AQ</b>	68.6%	42.2%%	47.6%	47.5%	68.4% <b>[Avg54.8:%]</b>

Source: University of Cape Coast

**Chart 8**



The Postgraduates figures for the University of Cape Coast, throughout the five year period, has being minimal. Comparisons between the various levels were tabulated as per percentages. In the year of 1997/1998, Application Qualified as per Application for Admission was 84.2%, this has being averagely consistent though-out the years, the average being **81.3%**.

The Annual intake as per Application Qualified in the year 1997/1998 was 68.6%.The average is throughout the years was **54.8%**

**Table[1.11] Average values for Postgraduate Students**

	Average Application For Admission[AA]	Average Application. Qualified[AQ]	Average Admission offers[AO]	Average Annual intake[I]	Average Annual output [O]	AQ/AA	AO/AQ	[I/AQ]
<b>UG</b>	1717	-----	763	626	300	<b>*44.4% [AO/AA]</b>	-----	<b>*36.4%[I/AO]</b>
<b>UCC</b>	219	174	<b>131</b>	150	77	<b>79.4%</b>	<b>83.3%</b>	<b>14.2%</b>
KNUST	454	438	314	287	202	96.4%	<b>71.8%</b>	<b>46.2%</b>
<b>UCEW</b>	25	11	11	11	-----	<b>44%</b>	-----	<b>57.6%</b>
<b>TOTAL</b>	<b>603</b>	<b>207</b>	<b>304</b>	<b>268</b>	<b>193</b>	<b>66%</b>	<b>77.5%</b>	<b>37.0%</b>

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Table 1.11 shows Average values for Postgraduates students in four of the public universities. On the Average Application for Admission, there is the figure of 603 applicants on an annual basis. Average Application Qualified was 207. Average Admission Offers was 304. Average Annual Intake was 268. and Annual Output being 193.

Percentage comparisons were made. For the five- year period, Average Qualified as per Application for Admissions was 66%, thus implying the those qualified as to applications for admission. Admission Offers as per Application Qualified is 77.5%. Annual Intakes as per Application Qualified is 37% .

## UNIT COST(PUBLIC UNIVERSITIES[Undergraduates & Postgraduates])

The cost per student for the universities has been calculated for the various broad disciplines offered. The Tables below captures figures on a three-year period.

The cost per student consists of staff cost (Personal Emoluments) and cost of goods and services. According to the National Council for Tertiary Education (NCTE), increments in the unit cost of students are due to the steady rise in teachers/lecturers salary.

It must be noted that according to NCTE, the figures quoted relate to all the five public universities namely, University of Ghana, University College of Education, University of Cape coast, University for Developmental Studies and Kwame Nkrumah University of Science and Technology.

Also, costs of amenities are estimated figures. This is because these charges vary from place to place. There are likely to be other miscellaneous that are not incorporated in this estimated cost.

**Table [1.12]: TUITION FEES**

	<b>1999/2000</b>	<b>2000/2001</b>	<b>2001/2002</b>	<b>2002/2003</b>	<b>TOTAL</b>
<b>SCIENCE</b>	¢5,677,260.00	¢8,704,694. 00	¢12,656,465.00	¢19,525,553. 00	¢46,563,952. 00
<b>HUMANITIES</b>	¢3,250,583.00	¢5,014,454. 00	¢7,301,948. 00	¢11,233,861. 00	¢26,800,846. 00
<b>APPLIED SCI /TECH</b>	¢5,887,529.00	¢9,027,090. 00	¢13,125,223.00	¢20,248,722. 00	¢48,288,564. 00
<b>ENGINEERING</b>	¢6,308,065.00	¢9,671,882. 00	¢14,062,739.00	¢21,695,059. 00	¢51,737,745. 00
<b>MEDICINE</b>	¢9,626,957. 00	¢14,839,524.00	¢23,019,108.00	¢32,349,416. 00	¢79,835,005. 00
<b>PHARMACY</b>	¢7,065,033.00	¢10,832,508.00	¢15,750,268.00	¢24,298,466. 00	¢57,946,275. 00
<b>EDUCATION</b>	¢3,900,696.00	¢6,017,345. 00	¢8,762,337. 00	¢13,480,633. 00	¢32,161,011. 00

Source: National Council for Tertiary Education[NCTE]

Table 1.12 displays on a four year period(1999-2003), the tuition fees for the various academic disciplines. Over the years has seen some gradual increase in tuition fees. At the end of the course, over the stated period, a medicine student ends up spending an amount of ¢79,835,005. 00. The least of tuition fees is that of Humanities being ¢26,800,846. 00

**Table [1.13]: OTHER AMENITIES**

	<b>1999/2000</b>	<b>2000/2001</b>	<b>2001/2002</b>	<b>2002/2003</b>	<b>TOTAL</b>
<b>HOSTEL ACCOMODATION</b>	¢800,000.00	¢1000,000.00	¢1,300,000.00	¢1,500,000.00	¢4,600,000.00
<b>ELECTRICITY</b>	¢180,000.00	¢240,000.00	¢360,000.00	¢400,000.00	¢1,180,000.00
<b>WATER</b>	¢120,000.00	¢120,000.00	¢120,000.00	¢150,000.00	¢510,000.00
<b>FOOD</b>	¢2,600,000.00	¢2,800,000.00	¢3,000,000.00	¢3,200,000.00	¢11,600,000.00
<b>PHOTOCOPIES</b>	¢200,000.00	¢200,000.00	¢200,000.00	¢200,000.00	¢800,000.00
<b>TOTAL</b>	¢3,900,000.00	¢4,360,000.00	¢4,980,000.00	¢5,450,000.00	

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**Table[1.1 4] OVERALL COST**

	<b>1999/2000</b>	<b>2000/2001</b>	<b>2001/2002/</b>	<b>2002/2003</b>	<b>TOTAL</b>
<b>SCIENCE</b>	¢9,577,260. 00	¢13,064,694.00	¢17,636,465.00	¢24,975,553. 00	¢65,253,972. 00
<b>HUMANITIES</b>	¢7,150,583. 00	¢9,374,454. 00	¢12,281,948.00	¢16,683,861. 00	¢45,490,846. 00
<b>APPLIED SCIENCE/TECH</b>	¢9,787,529. 00	¢13,387,090.00	¢18,105,223.00	¢25,698,722. 00	¢66,978,564. 00
<b>ENGINEERING</b>	¢10,208,065.00	¢14,031,882.00	¢19,042,739. 00	¢27,145,059. 00	¢70,427,745. 00
<b>MEDICINE</b>	¢13,526,957.00	¢19,199,524.00	¢27,999,108. 00	¢37,799,416. 00	¢98,525,005. 00
<b>PHARMACY</b>	¢10,965,033.00	¢15,192,508.00	¢20,730,268. 00	¢29,748,466. 00	¢76,636,275. 00
<b>EDUCATION</b>	¢7,800,696. 00	¢10,377,345.00	¢13,742,337. 00	¢18,930,633. 00	¢50,851,011. 00

Source: National Council for Tertiary Education[NCTE]

The overall cost of producing a graduate was calculated, with consisted of Tuition fees and Other Amenities (Accomodation, Electricity, Water, Food &Photocopies)

## PRIVATE UNIVERSITIES

Private Universities, for the past years have been fostering professional tertiary education. On Comparisons public universities, tend to attract large capacities of applicants than the private. The private universities were established not too long ago, so comparisons between them will tend to vary. Information gathered from some of the private universities was not up to expectations.

**Table[1.1 5]**

	<b>ASHESI UNIVERSITY COLLEGE</b>				
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission</b>					150
<b>Application Qualified</b>	<b>NOT YET ESTABLISHED</b>				30
<b>Admission Offer</b>					30
<b>Annual Intake</b>					30
<b>Annual Output</b>					----

Source: Ashesi University College

Ashesi University, an up and coming private university, was just established in the year 2001. Information was only acquired for the academic year of 2001/2002. Application for Admissions was 150. Those who qualified came down to 30 applicants. The same amount were offered admissions. Admission offered, resulted in the colleges annual intake.

At the time of information availability, the college had not yet had any graduates.

**Table[1.1 6]**

	<b>CENTRAL UNIVERSITY</b>				
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission</b>					
<b>Application Qualified</b>					
<b>Admission Offer</b>					
<b>Annual Intake</b>		271	543	435	456
<b>Annual Output</b>					

Source: Central University

**Table[1.17]**

	<b>VALLEY VIEW UNIVERSITY</b>				
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission</b>					
<b>Application Qualified</b>					
<b>Admission Offer</b>					
<b>Annual Intake</b>	185	357	366	565	705
<b>Annual Output</b>	18	17	22	27	52

Source: Valley View University

Table[1.1 8]

<b>METHODIST UNIVERSITY COLLEGE</b>					
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission [AA]</b>				850	854
<b>Application Qualified[AQ]</b>				834	827
<b>Admission Offer[AO]</b>				400	400
<b>Annual Intake[I]</b>	<b>NOT YET ESTABLISHED</b>			214	243
<b>Annual Output[O]</b>				----	----
<b>AQ/AA</b>				98.1%	96.8% <b>[Avg:97.4%]</b>
<b>AO/AQ</b>				47.9%	48.3% <b>[Avg:48.1%]</b>
<b>I/AQ</b>				25.6%	29.3% <b>[Avg:27.4%]</b>

Source: Methodist University College

Methodist University College, was established in the year of 2000. Percentage comparisons were made, Average Admission Qualified as per Application for Admission for the first two academic years was 97.4%. Admission Offers as per Application Qualified was 48.1%. Annual Intake as per Application Qualified was 27.4%, this implies that upon all the qualified applicants, only 27.4% were intakes.

## **POLYTECHNICS (Analysis from 1997-2002,Undergraduates)**

Polytechnic institutions from way back, have formed a spectrum of tertiary education in the country. They have being known to contribute quite a large amount of graduates in the economy.

The development of the economy, is some how based on technological advancement. In other words the number of skilled human resource that channel through these institutions go a long way to accelerate the development in all sectors of the economy.

Information acquired from the polytechnics, relates to: Application for Admission, Application Qualified, Annual Intake and Annual Output.

**Table[1.1 9]**

<b>KUMASI POLYTECHNIC</b>					
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission [AA]</b>	4383	4202	5327	3321	5013
<b>Application Qualified [AQ]</b>	3098	3085	4000	2350	4066
<b>Admission Offer[AO]</b>	1056	1168	1327	927	1347
<b>Annual Intake [I]</b>	1012	1122	1327	927	1347
<b>Annual Output [O]</b>	428	574	637	759	-----
<b>AQ/AA</b>	70.6%	73.4%	75%	70.7%	81.1% <b>[Avg:59.4%]</b>
<b>AO/AQ</b>	34%	37.8%	24.9%	39.4%	33.1% <b>[Avg:27%]</b>
<b>I/AQ</b>	32.6%	36.3%	33.1%	39.4%	33.1% <b>[Avg:34.9%]</b>

Source: Kumasi Polytechnic

In Table 1.18, Kumasi Polytechnic average comparison per percentage is as follows: Application Qualified as per Application for Admission was 59.4% for the five year period. Average Admission Offers as per Admission Qualified was 34.9%. Annual Intakes as per Admission Qualified was 34.9%, this implying the percentage who had entered the institution as per the qualified rate.

<b>ACCRA POLYTECHNIC</b>					
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission[AA]</b>	4150	4600	5072	5865	5162
<b>Application Qualified[AG]</b>	2116	1462	2668	2879	2879
<b>Admission Offer[AO]</b>	1476	1136	1319	1613	2021
<b>Annual Intake[I]</b>	1239	969	1006	1236	1528
<b>Annual Output[O]</b>	473	752	596	916	889
AQ/AA	50.9%	31.7%	52.6%	49%	55.7% <b>[Avg:38.2%]</b>
AO/AQ	69.7%	77.7%	49.4%	56%	70.1% <b>[Avg:40%]</b>
I/AQ	58.5%	66.2%	37.7%	42.9%	53% <b>[Avg:41%]</b>

**Table[1.1 9]**

Source: Accra Polytechnic

Table 1.19, displays information of undergraduates for Accra Polytechnic. Through the five year period, Average Admission Qualified as per Application for Admission was 38.2%. This implies the qualified applicants as to those who applied for admission. Admission Offers as per Admission Qualified was 40%.

Annual Intake as per Admission Qualified was 41%. This also implies that of all the qualified applicants, 41% were enrolled into the institution on the average.

**Table[1.20]**

<b>TAKORADI POLYTECHNIC</b>					
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission[AA]</b>	1605	1603	1956	2093	2450
<b>Application Qualified[AQ]</b>	1309	1407	1436	1782	1980
<b>Admission Offer[AO]</b>	1099	1048	1041	1136	1522
<b>Annual Intake[I]</b>	973	944	866	980	1293
<b>Annual Output[O]</b>	295	410	575	724	-----
<b>AQ/AA</b>	81.5%	87.7%	73.4%	85.1%	80.8% <b>[Avg:81.7%]</b>
<b>AO/AQ</b>	83.9%	74.4%	72.4%	63.7%	76.8% <b>[Avg:74.2%]</b>
<b>I/AQ</b>	74.3%	67.1%	60.3%	54.9%	65.3% <b>[Avg:64.3%]</b>

Source: Takoradi Polytechnic

Table 1.20, displays information of undergraduates for Takoradi Polytechnic. On the five year period, Application Qualified as per Application for Admission was 81.7%. Admission Offers as per Application Qualified is 74.2%. Annual Intake as per Application Qualified is 64.3%, which indicates Intakes into the polytechnic as to the number who qualified.

**Table[1.21]**

<b>SUNYANI POLYTECHNIC</b>					
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission[AA]</b>	831	1632	1141	1770	1571
<b>Application Qualified[AQ]</b>	608	1197	1070	1530	1023
<b>Admission Offer[AO]</b>	313	812	924	969	941
<b>Annual Intake[I]</b>	311	810	820	828	722
<b>Annual Output[O]</b>		805	795	815	710
<b>AQ/AA</b>	73.1%	73.3%	93.7%	86.4%	65.1% <b>[Avg:78.3%]</b>
<b>AO/AQ</b>	51.4%	67.8%	86.3%	63.3%	91.9% <b>[Avg72.1:%]</b>
<b>I/AQ</b>	51.5%	67.6%	76.6%	54.1%	70.5% <b>[Avg:64%]</b>

**Source:** Sunyani Polytechnic

Table 1.21, displays information of undergraduates for Sunyani Polytechnic. Comparisons as per average percentage were as follows. Application Qualified as per Application for Admission through the five year period was 78.3%. Admission Offers as per Application Qualified was 72.1%. Intakes as per Application Qualified is 64%.

**Table[1.22]**

<b>HO POLYTECHNIC</b>					
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission[AA]</b>	1741	1492	2089	1903	2275
<b>Application Qualified[AQ]</b>	959	1166	1520	922	1610
<b>Admission Offer[AO]</b>	724	538	593	629	776
<b>Annual Intake[I]</b>	701	596	526	608	707
<b>Annual Output[O]</b>	350	466	609	545	-----
<b>AQ/AA</b>	55%	78.1%	72.7%	48.4%	70.7% <b>[Avg64:%]</b>
<b>AO/AQ</b>	75.4%	46.1%	39%	68.2%	48.1% <b>[Avg:55.3%]</b>
<b>I/AQ</b>	73%	55.1%	34.6%	65.9%	43.9% <b>[Avg:54.5%]</b>

Source: Ho Polytechnic

Table 1.22, displays information of undergraduates for Ho Polytechnic. Application Qualified as per Application for Admissions was 64%. Admission Offers as per Application Qualified is 55.3%. Intakes as per Application Qualified is 54.5%.

**Table[1.23]**

<b>CAPE COAST POLYTECHNIC</b>					
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission[AA]</b>	516	833	1852	1882	2441
<b>Application Qualified[AQ]</b>	311	759	1604	1225	1282
<b>Admission Offer[AO]</b>	288	704	1199	1202	1215
<b>Annual Intake[I]</b>	267	659	1037	1177	1174
<b>Annual Output[O]</b>	84	111	181	225	613
<b>AQ/AA</b>	60.2%	91.9%	57.4%	65%	46.2% <b>[Avg:64.1%]</b>
<b>AO/AQ</b>	92.6%	92.7%	74.7%	98.1%	94.7% <b>[Avg:90.5%]</b>
<b>I/AQ</b>	85.8%	86.8%	64.6%	96%	91.5% <b>[Avg:84.9%]</b>

**Source:** Cape Coast Polytechnic

Table 1.23, displays information of undergraduates for Cape Coast Polytechnic. Application Qualified as per Application for Admissions was 64.1%. Admission Offers as per Application Qualified is 90.5%. Intakes as per Application Qualified is 84.9%.

**Table[1.24]**

<b>KOFORIDUA POLYTECHNIC</b>					
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission[AA]</b>	654	926	1956	902	1448
<b>Application Qualified[AQ]</b>	302	774	1853	700	1305
<b>Admission Offer[AO]</b>	296	480	730	460	751
<b>Annual Intake[I]</b>	266	470	700	416	624
<b>Annual Output[O]</b>	-----	-----	-----	-----	290
<b>AQ/AA</b>	46.1%	83.5%	94.7%	77.6%	90.1% <b>[Avg:78.4%]</b>
<b>AO/AQ</b>	98%	62%	39.3%	65.7%	57.5% <b>[Avg:64.5%]</b>
<b>I/AQ</b>	88%	60%	37.7%	59.7%	47.8% <b>[Avg:58.6%]</b>

**Source:** Koforidua Polytechnic

Table 1.24, displays information of undergraduates for Koforidua Polytechnic. Application Qualified as per Application for Admissions was 78.4%. Admission Offers as per Application Qualified is 64.5%. Intakes as per Application Qualified is 58.6%.

**Table[1.25]**

<b>TAMALE POLYTECHNIC</b>					
	97/98	98/99	99/00	00/01	01/02
<b>Application for Admission[AA]</b>	760	720	1295	2041	2765
<b>Application Qualified[AQ]</b>	329	438	1022	1818	2475
<b>Admission Offer[AO]</b>	203	393	787	1421	2117
<b>Annual Intake[I]</b>	203	379	735	1392	2000
<b>Annual Output[O]</b>	287	317	400	450	340???
<b>AQ/AA</b>	43.2%	60.8%	78.9%	89%	89.5% <b>[Avg:72.2%]</b>
<b>AO/AQ</b>	61.7%	89.7%	77%	78.1%	85.5% <b>[Avg:78.4%]</b>
<b>I/AQ</b>	61.7%	86.5%	71.9%	76.5%	80.8% <b>[Avg:75.4%]</b>

**Source: Tamale Polytechnic**

Table 1.25, displays information of undergraduates for Tamalea Polytechnic. Application Qualified as per Application for Admissions was 72.2%. Admission Offers as per Application Qualified is 78.4%. Intakes as per Application Qualified is 75.4%.

**Table[1.25] Average values for polytechnics[Undergraduates]**

	Average Application For Admission[AA]	Average Application. Qualified[AQ]	Average Admission offers[AO]	Average Annual intake[I]	Average Annual output [O]	AQ/AA	AO/AQ	[I/AQ]
<b>KUMASI POLY'</b>	4449	3319	1165	1145	599	<b>74.6%</b>	<b>35.1%</b>	<b>34.4%</b>
<b>ACCRA POLY'</b>	4969	2400	<b>1513</b>	1195	725	<b>48.2%</b>	<b>63%</b>	<b>49.7%</b>
TAKORADI POLY	1941	1582	1169	1011	501	81.5%	<b>73.8%</b>	<b>63.9%</b>
<b>SUNYANI POLY'</b>	1389	1085	791	698	714	<b>78.1%</b>	<b>72.9%</b>	<b>64.3%</b>
<b>HO POLY'</b>	1900	1235	652	627	492	<b>65%</b>	<b>52.7%</b>	<b>50.7%</b>
<b>CAPE COAST POLY'</b>	1504	1005	<b>921</b>	862	242	<b>66.8%</b>	<b>91.6%</b>	<b>85.7%</b>
KOFORIDUA POLY'	1179	1027	543	495	370	87.1%	<b>52.8%</b>	<b>48.1%</b>
<b>TAMALE POLY'</b>	1516	1216	985	941	338	<b>80.2%</b>	<b>81%</b>	<b>77.3%</b>
<b>TOTAL[AVG]</b>	<b>2355</b>	<b>1608</b>	<b>967</b>	<b>871</b>	<b>497</b>	<b>72.6%</b>	<b>65.3%</b>	<b>59.2%</b>

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Averages for the eight polytechnics were tabulated and percentage comparisons made. Through the five year period, Average Application for Admission was at 2355, Average Application Qualified was at 1608, Average Admission Offers was 967, Average Annual Intake was 871 and the Average Annual Out put was 497.

Percentage comparisons were as follows: Application Qualified as per Application for Admission was 72.6%, implying those who are qualified as per the total number of Application for Admissions. Admission Offers as per Application Qualified is 65.3%, this implies the Admission Offers as per those who qualify. Annual Intakes per Application Qualified is 59.2%, this also implies the average intakes into the polytechnics as to those who qualify.

## Conclusion

Assessing the state of Human Resource Development in the economy as a whole, one has to take a look at the channels that facilitate this process. In the report analysis, a look is taken at first the Universities (Public and Private) and Polytechnics. This entails mainly of the inflow and outflow of graduates in these institutions.

Public universities which consisted of [ University of Ghana (Legon), University of Cape Coast, University College of Education (Winneba), Kwame Nkrumah University of Science and Technology (Kumasi), University for Development Studies (Tamale). Analysis was made through a five year period, on the average basis of Application for Admissions, Application Qualified, Admission Offers, Annual Intake and Annual Output. Upon this a few findings and analysis were outlined.

In the Public Universities, Applications for Admissions for undergraduates was at a figure of 8360, this implying the average figure of applicants who applied for admission. Applications Qualified was 6183. Admission Offers was 2840. Annual Intake was 2472 and Annual Output was 1510. Average percentages comparisons were also tabulated between the various levels. Average Application Qualified as per Applications for Admissions was 83.8%. This implies those who are qualified as to the Applications for Admissions. Admission Offers as per Application Qualified is 33.6%