

# Ministry of Education



Republic of Ghana



## Report on Basic Statistics and Planning Parameters for **TECHNICAL AND VOCATIONAL EDUCATION** in Ghana 2005/2006

EMIS  
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# **SECTION ONE**

## **INTRODUCTION**

# **REPORT ON BASIC STATISTICS AND PLANNING PARAMETERS FOR TECHNICAL AND VOCATIONAL INSTITUTIONS IN GHANA - 2005/2006**

## **1. INTRODUCTION**

In an effort to make adequate and reliable data and information available for scientific policy formulation, planning and implementation of various programmes and projects in education in Ghana, the Ministry of Education, Science and Sports launched the Education Management Information System (EMIS) Project in January, 1997 with technical support during the first and second Phases from the Harvard University and funds from the World Bank and the Government of Ghana. As an integral part of the Free, Compulsory and Universal Basic Education (FCUBE) Programme, the EMIS Project was planned to build on the already existing EMIS established in 1988 in the Ministry as part of the Education Reforms. Currently, technical support is being given by UNESCO Institute for Statistics (UIS).

This report covers the sixteenth census of the pre-tertiary level institutions involved in technical and/or vocational education and training (TVET). Its purpose is to provide basic data and planning parameters on enrolment, teaching staff, facilities and programmes offered. Previous year's census in this area focused on the limited number of TVET Institutions under the management of the Ghana Education Service. With the

collaboration of the National Coordinating Committee for Technical and Vocational Education and Training (NACVET), the Ministry in 2005 decided to appoint a NACVET EMIS Coordinator to support the development of a sector-wide TVET information system. This year's census is the first attempt to extend the census to TVET institutions in other Ministries and the private sector.

The key government ministries participating in the TVET sector other than the Ministry of Education, Science and Sports (Ghana Education Service) includes the Ministries of Manpower, Youth and Employment, Local Government and Rural Development, Agriculture, of Roads and Transport, Trade and Industry. Additionally some 293 TVET institutions have been identified by NACVET<sup>1</sup>.

Some 600 copies of TVET census questionnaires were distributed country-wide but only 128 of them were returned. This causes a distortion in the analysis presented here and some caution is advised in viewing this census as a benchmark. In some instances the data reported covers the full TVET database but where data is incomplete subsets of data are used. For example, enrolment statistics are reported from only 88 TVET institutions whereas the full dataset has 128 institutions. It is hoped that with the passing of the COVET Bill, next year's census will be more collaborative and comprehensive across the sector.

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<sup>1</sup> Information on Technical & Vocational Institutes in Ghana, NACVET, June 2005, Bestas Press, Accra.

Section One gives a brief introduction of the report highlighting briefly the EMIS Project.

Section Two gives a brief summary of the analysis of the data. Where possible the analyses cover the dimensions of gender, status (public or private), regional and national.

Section Three gives a summary of tables, charts and maps for TVET institutions. The arrangement of tables followed immediately by maps and charts has been used to facilitate visualisation of the concepts presented.

Section Four gives detail information on enrolment, teachers and facilities at national and regional levels.

# **SECTION TWO**

## **SUMMARY OF FINDINGS**

## 2. SUMMARY OF FINDINGS

### 2.1 Number of TVET Institutions

The number of public TVET Institutions covered is **42** representing 21.8% of the known existing number of 193 as indicated in Table 2.2.1 below. The number of private TVET Institutions is **86** constituting 29.4% of the known 293 existing institutions. Thus, the total number of both public and private TVET Institutions covered is **128** representing 26.3 percent of the known existing number of 486. The best coverage of TVET institutions is that of the GES Technical Institutes (70 percent).

Table 2.1a Number of TVET Institutions by type of education, 2005/2006

TYPE OF EDUCATION	NUMBER OF TVET		
	No. Existing	No. Covered	% Covered
Public	193	42	21.8
Private	293	86	29.4
<b>Total</b>	<b>486</b>	<b>128</b>	<b>26.3</b>

The split of public TVET institutions across the different government ministries is presented in Table 2.1b below. The Census coverage was highest among the GES Technical Institutes (**70** percent) and Leadership Training Institutes (**44**).

Table 2.1b Detailed information on Type of TVET Institutions, 2005/2006

TYPE OF TVET INSTITUTION	Total Known TVET Institutions	2005/06 Census TVET Institutional Coverage	% Coverage
GES Technical Institutes	23	16	69.6
NVTI Centres	38	10	26.3
Integrated Community Centres for Employable Skills (ICES)	68	4	5.9
Social Welfare Centres	15	1	6.7
Leadership Training Institutes	9	4	44.4
Opportunities Industrialisation Centre	3	0	0.0
Community Development Centres	24	7	29.2
Agriculture Training Institutes	3	0	0.0
Roads & Transport Training Centre	1	0	0.0
Gratis Foundation	9		0.0
<b>TOTAL PUBLIC TVET Institutions</b>	<b>193</b>	<b>42</b>	<b>21.8</b>
<b>TOTAL PRIVATE TVET Institutions</b>	<b>293</b>	<b>86</b>	<b>29.4</b>
<b>TOTAL</b>	<b>486</b>	<b>128</b>	<b>26.3</b>

Regional distribution of TVET Institutions in Table 3.1a (page 13), Map 3.1a and Chart 3.1a (page 14) shows that the Ashanti Region exhibits the highest number of TVET Institutions (**25**) while the Greater Accra Region has the lowest number (**3**). The poor representation of the Greater

Accra Region is likely a function of poor census coverage. Except for the Western Region, there are more private TVET Institutions than public ones. Further, as illustrated in Table 3.1b, the majority of TVET institutions are co-educational with a surprisingly high number of them with only female students, particularly in the private sector institutions. Table 3.1c indicates that the majority of TVET institutions offer either boarding or hostel facilities for their students, particularly among the private institutions.

## 2.2 Enrolment by Type of Education

As shown in Table 2.2 below, enrolment in public TVET Institutions is **18,438**, and in the private sector, the figure is **13,028**. The total enrolment in both the public and private TVET Institutions is **31,466**.

**Table 2.2 Enrolment in TVET Institutions by type of education, 2005/2006**

TYPE OF EDUCATION	ENROLMENT IN TVET
Public	18,438
Private	13,028
<b>Total</b>	<b>31,466</b>

Regional distribution of enrolment in TVET Institutions in Table 3.2 (page 19), Map 3.2 and Chart 3.2 (page 20) shows that the Ashanti Region exhibits the highest enrolment in

TVET Institutions (**5,928**) while the Northern Region has the lowest enrolment (**1,101**). Nationally, female and male enrolment is evenly distributed. It is only among full-time students that male enrolment slightly exceeds that of female enrolment in TVET institutions.

## 2.3 Type of Enrolment in TVET Institutions

As shown in Table 2.3 below, full-time enrolment in TVET Institutions is **27,604**, and for part-time, the figure is **3,862**. The total enrolment in both the public and private TVET Institutions is **31,466**. This includes both full-time and part-time enrolment.

**Table 2.3 Type of Enrolment in TVET Institutions, 2005/2006**

TYPE OF ENROLMENT	ENROLMENT IN TVET
Full-time	27,604
Part-time	3,862
<b>Total</b>	<b>31,466</b>

Regional distribution of TVET enrolment by type in Table 3.3 (page 21), Map 3.3 and Chart 3.3 (page 22), illustrates that the majority of part-time TVET students are enrolled in the Western Region (**1,265**), a significant number of whom are female. The other Region with high part-time enrolment is Ashanti (**1,217**). The Brong Ahafo Region reports no part-time enrolment.

## 2.4 Enrolment by Level of Programme in TVET Institutions

As shown in Table 2.4 below, a total **25,211** students representing **80.1%** of the total enrolment in TVET Institutions were enrolled in Intermediate programmes. **3,566** students constituting **11.3%** were enrolled in Advanced courses, while **2,689** representing **8.5%** were enrolled in Technicians programmes. The total enrolment in both the public and private TVET Institutions is **31,466**. This includes both full-time and part-time enrolment.

**Table 2.4 Enrolment by level in TVET Institutions, 2005/2006**

LEVEL OF PROGRAMME	ENROLMENT	
	No.	%
Intermediate	25,211	80.1
Advanced	3,566	11.3
Technicians	2,689	8.5
Total	31,466	100.0

Table 3.4b (page 25) and Chart 3.4b (page 26) indicate that a significant number (**30.2** percent) of full-time students are enrolled in Business Studies, followed by Electrical Installation (**10.1** percent) and Refrigeration (**9.4** percent) courses. A significant number of full-time female students in the public TVET institutions are enrolled in Radio, TV and Electronics and Agricultural Mechanics (**81.3** and **60.3** percent of

enrolment in those courses). Female students in private TVET institutions are predominantly found in Cooking courses (**94.7** percent of those enrolled), Other (which mainly includes hairdressing and dressmaking) (**68.4** percent of those enrolled) and Radio, TV and Electronics (**89.0** percent of those enrolled).

Table 3.4b and Chart 3.4b indicates that the majority of part-time students are enrolled in Business Studies (**37** percent). This is followed by those enrolled in Refrigeration (**11** percent) and Plumbing (**10** percent). Over **60** percent of part-time TVET students are female.

## 2.5 Number of Teachers in TVET Institutions

As shown in Table 2.5 below, the total number of teachers in public TVET Institutions is **1,001**, and in private TVET Institutions the figure is **722**. The total number of teachers in both public and private TVET Institutions is **1,723**.

**Table 2.5 Number of teachers in TVET Institutions by type of education, 2005/2006**

TYPE OF EDUCATION	NUMBER OF TEACHERS
Public	1,001
Private	722
Total	1,723



Regional distribution of number of teachers in TVET Institutions in Table 3.5 (page 27), Map 3.5 and Chart 3.5 (page 28) shows that the Eastern Region exhibits the largest number of teachers (**320**) while the Greater Accra Region has the smallest figure (**94**).

## 2.6 Percentage of Professionally Trained Teachers in TVET Institutions

As presented in Table 2.6a below, the percentage of trained teachers in public TVET Institutions is **38.0**, and in private TVET Institutions the figure is **26.2**. In both public and private TVET institutions, the percentage of trained teachers is **33.0**. The qualifications profile of a trained teacher requires them to have the minimum professional teaching qualification of a certificate “A” issued from a Teacher Training College.

**Table 2.6a Percentage of trained teachers in TVET Institutions by type of education, 2005/2006**

TYPE OF EDUCATION	% TRAINED TEACHERS
Public	38.0
Private	26.2
Total	33.0

Regional distribution of percentage of trained teachers in TVET Institutions in Table 3.6a (page 29), Map 3.6a&b and Chart 3.6a (page 30) shows that the Eastern Region exhibit the highest percentage of trained teachers in public TVET

Institutions (**65.7**) while the Greater Accra Region has the lowest figure (**0.0**).

As shown in Table 2.6b below, the percentage of TVET specialist teachers in public TVET Institutions is **51.4**, and in private TVET Institutions the figure is **47.0**. In both public and private TVET institutions, the percentage of trained teachers is **49.6**. A trained TVET specialist teacher is considered to have obtained the minimum technical qualification of a Technician Two certificate or above.

**Table 2.6b Percentage of teachers with minimum TVET specialisations in TVET Institutions by type of education, 2005/2006**

TYPE OF EDUCATION	% TVET TRAINED TEACHERS
Public	51.4
Private	47.0
Total	49.6

Regionally, Greater Accra TVET teachers are the most specialised in TVET qualifications (**72.7** percent) and the Volta TVET teachers the least qualified (**29.5** percent) as shown in Table 3.6b (page 31), Map 3.6c&d and Chart 3.6b (page32).

## 2.7 Gender Profile of Teachers in TVET Institutions

As shown in Table 2.7 below, the percentage of female TVET teachers is **28** and that of males **72**. In both public and private TVET Institutions, the total number of teachers is 1,723.

**Table 2.7 Gender profile of teachers in TVET institutions, 2005/2006**

GENDER	PERCENTAGE OF TEACHERS
Male (%)	28.4
Female (%)	71.6
Total (%)	100.0
Total (No.)	1,723

Regional distribution of teachers in TVET institutions in Table 3.7 (page 33), Map 3.7a&b and Chart 3.7 (page 34) indicates that **21.9** percent of male teachers are qualified as trained teachers and only **13.5** percent of female teachers. Some **36.8** percent of qualified male teachers are found in Upper East Regional TVET institutions and **36.8** percent of qualified female TVET teachers are found in the Central Region.

## 2.8 INSET Profile of Teachers in Public TVET Institutions

As shown in Table 2.8a below, the percentage of teachers in public TVET institutions that received in-service training in the past academic year ranged from hardly ever (**50.0**) to twice a term (**4.8**).

**Table 2.8a INSET profile of teachers in public TVET institutions, 2005/2006**

FREQUENCY	INSERVICE TRAINING
% Hardly Ever	50.0
% Once a Year	28.6
% Once a Term	4.8
% Twice a Term	4.8
% No Response	10.5

Regional distribution of teachers in public TVET institutions in Table 3.8 (page 35), Map 3.8a&b and Chart 3.8 (page 36) indicates that **20.0** percent of teachers in Brong Ahafo and Eastern Regions participated in in-service training at least twice a term. This was the highest frequency across the regions. The teachers in public TVET institutions in Greater Accra and Northern Regions hardly ever received in-service training.

As shown in Table 2.8b below, the percentage of teachers in private TVET institutions that received in-service training in the past academic year ranged from hardly ever (**34.9**) to twice a term (**4.7**).

**Table 2.8b INSET profile of teachers in private TVET institutions, 2005/2006**

FREQUENCY	INSERVICE TRAINING
% Hardly Ever	34.9
% Once a Year	37.2
% Once a Term	12.8
% Twice a Term	4.7
% No Response	10.5

Regional distribution of teachers in private TVET institutions in Table 3.8 (page 35), and Map 3.8 and Chart 3.8 (page 36) indicates that **13.5** percent of teachers in the Eastern Region participated in in-service training at least twice a term. This was the highest frequency across the regions among private institutions. Some **80.0** percent of teachers in private TVET institutions in Upper East Region reported that they hardly ever received in-service training in the past year.

## **2.9 HIV/AIDS Support in TVET Institutions**

As shown in Table 2.9 below, **50.1** percent of TVET Institutions received HIV/AIDs in-service training in the past academic year. A further **35.6** percent of TVET institutions have integrated HIV/AIDs into aspects of their curriculum.

**Table 2.9 HIV/AIDS Support in TVET Institutions, 2005/2006**

LEVEL OF INTERVENTION	INSERVICE TRAINING
% Received HIV/AIDS INSET	50.1
% Integrated HIV/AIDS into aspects of the curriculum	35.6
No. of Institutions Reporting	108

Regional distribution of TVET institutions in Table 3.9 (page 37), Map 3.9 and Chart 3.9 (page 38) indicates that the TVET institutions, both public and private, that received the most HIV/AIDS support were in the Central and Eastern Regions. The TVET institutions in the Great Accra reported the least support with regards to HIV/AIDS interventions. Overall, public TVET institutions were more inclined to engage in HIV/AIDS support than private TVET Institutions.

## 2.10 Infrastructure of TVET Institutions

As shown in Table 2.10 below, the majority of TVET Institutions have drinking water available on site (**82.5** percent); of those wired with electricity (**95.0** percent) some **89.2** percent have functional electricity. This applies to 120 public and private TVET institutions.

Table 2.10 Infrastructure in TVET Institutions , 2005/2006

TYPE OF INFRASTRUCTURE	TVET INSTITUTIONS
% Drinking water available	82.5
% Wired for electricity	95.0
% With Electricity functional	89.2
No. of Institutions Reporting	120

Regional distribution of TVET institutions in Table 3.10 (page 39), Map 3.10a&b and Chart 3.10 (page 40) indicates that that half (**50.0** percent) of the TVET institutions, both public and private, in Central Region have drinking water available on site. Further, **72.5** percent of TVET institutions, both private and public, in the Upper West Region have functional electricity.

## 2.11 Number of Classrooms in TVET Institutions

As shown in Table 2.11 below, the number of classrooms in public TVET Institutions is **425**, and in private TVET Institutions

the figure is **364**. The number of classrooms in both public and private TVET Institutions is **789**. The number of temporary classrooms is **339** in both private and public institutions.

Table 2.11 Classrooms in TVET Institutions, 2005/2006

TYPE OF EDUCATION	NUMBER OF CLASSROOMS	NUMBER OF TEMPORARY CLASSROOMS
Public	425	98
Private	364	241
Total	789	339

Regional distribution of number of classrooms in TVET Institutions in Table 3.11a (page 41), Map 3.11a&b and Chart 3.11 (page 42) shows that the Volta Region exhibits the highest number of public temporary classroom structures (**44.0** percent) while the Greater Accra and Northern Regions have no reported temporary classrooms in their public TVET institutions.

Regional distribution of number of classrooms in TVET institutions in Table 3.11b (page 43), Map 3.11c&d and Chart 3.11b (page 44) indicates that **16.7** percent of TVET classrooms constructed have walls of mud, zinc or wood and **15.8** percent have floors of earth or wood. Nearly a quarter of private TVET institutions are in this situation.

## 2.12 Condition of Classrooms in TVET Institutions

As indicated in Table 2.12 below, of the total of **425** classrooms in public TVET institutions, **31.3** percent needs major repairs while **25.4** percent needs minor repairs. Of the total of **364** classrooms in private TVET Institutions, **29.7** percent needs major repairs while **4** percent needs minor repairs. Out of the total of 789 classrooms in both public and private TVET Institutions, **30.5** percent needs major repairs while **13.7** percent needs minor repairs.

**Table 2.12 Condition of permanent classrooms (in percentage) in TVET Institutions by type of education, 2005/2006**

TYPE OF EDUCATION	CONDITION OF CLASSROOMS IN TVET		
	Total	Needs Major Repairs	Needs Minor Repairs
<b>Public</b>	425	31.3%	25.4%
<b>Private</b>	364	29.7%	0.0%
<b>Total</b>	789	30.5%	13.7%

Regional distribution of condition of classrooms in TVET Institutions in Table 3.12a (page 45), Map 3.12a&b and Chart 3.12 (page 46) shows that the Upper West Region exhibits the highest number of classrooms in public TVET institutions needing both major repairs (**66.7** percent) and minor repairs (**63.0** percent). The Upper East Region has the least number (**7.3** percent) of its classrooms in public TVET institutions need major repair. However, in their private TVET institutions,

the Upper East Region reports the highest number of classrooms (**78.8** percent) needing major repairs

## 2.13 TVET Facilities in TVET Institutions

As shown in Table 2.13 below, the number of TVET Institutions with workshops is **51.6** percent. Some **43.0** percent of TVET Institutions have science laboratories and **26.6** per cent have computer laboratories.

**Table 2.13 Percentage of TVET Institutions by type of facility, 2005/2006**

TYPE OF FACILITY	% OF TVET INSTITUTIONS WITH
<b>Workshop</b>	51.6
<b>Science Laboratory</b>	43.0
<b>Computer Laboratory</b>	26.6

Regional distribution of the percentage of TVET Institutions' profile on facilities in Table 3.13a (page 47), Map 3.13a&b and Chart 3.13a (page 48) shows that the **65.0** percent of Eastern Region TVET Institutions, both private and public, have workshops. Only **38.9** percent of Brong Ahafo's TVET Institutions have workshops. Overall, public TVET institutions are better resourced than private as **54.8** percent as compared to **37.2** percent have science laboratories. Some **35.7** percent of public TVET institutions have computer laboratories whereas only **22.1** percent of private TVET institutions have such

facilities. In regions such as Northern, Upper East, Western and Greater Accra the private TVET Institutions do not report having any computer laboratories.

#### **2.14 Condition of Equipment in TVET Institutions**

As indicated in Table 2.14 below, public TVET institutions reported that only **12.4** percent of their programmes offered are well equipped. By contrast some **29.3** percent of private TVET programmes are in this position. Well equipped programmes allow each student to have hands on practice by the end of the lesson in the course being taught.

**Table 2.14 Average Condition of Equipment (in percentages) in TVET programme by type of education, 2005/2006**

TYPE OF EDUCATION	CONDITION OF EQUIPMENT IN TVET			
	Well Equipped	Partly Equipped	Poorly Equipped	Not Equipped
<b>Public</b>	12.4	50.4	20.4	16.8
<b>Private</b>	29.3	59.3	6.5	4.9
<b>Total</b>	23.9	55.0	17.3	14.3

Both public and private TVET institutions reported that the majority of their programmes are only partly equipped i.e. it takes a number of days for each student to obtain hands on experience using the equipment for the course being taught.

In public TVET institutions, **20.4** percent of the programmes are poorly equipped which means that the full complement of equipment required for the effective delivery of the training is missing or not functional. In the case of private TVET institutions, only **6.5** percent of their programmes are in this state. Some **16.8** percent and **4.9** percent respectively of public and private TVET programmes are not equipped.