DEVELOPMENT AND SPATIAL EQUITY OF PUBLIC HIGHER VOCATIONAL EDUCATION AND TRAINING COLLEGES IN LIBYA

S. Elzalitni, M. Lees
Research Institute for the Built & Human Environment, University of Salford,
Maxwell Building, Salford, M5 4WT, UK
E-Mail: S. Elzalitni@pgr.salford.ac.uk

ABSTRACT: In the 1990s, a network of higher education institutions known as Public Higher Vocational Education and Training Colleges (PHVETCs) was introduced in Libya to enhance the supply of skilled manpower. By 2000 there were a total of 85 PHVETCs across the country. The analysis of available statistics, however, suggests unplanned nature of the distribution of PHVETCs. This research has revealed that 21 percent of these colleges accounting for 34 percent of student population were located in just one of the country's 13 administrative divisions. Also, while it is well-understood that Libya requires more professionals in the areas of engineering, medicine and technology, PHVETCs continue to train and produce a significant number of graduates in education. This latter field of study accounted for more than 51 percent to the total courses provided by these colleges.

Keywords- Higher vocational education, spatial distribution, Libya

1. INTRODUCTION

Vocational Education and Training (VET) is an important sub-sector of the public education system in Libya. It has been subjected to an active process of redesign and has become the focus of the government's strategy in more recent years (Gannous, 1999). Accordingly, during the 1990s, a network of Public Higher Vocational Education and Training Colleges (PHVETCs) was established for the purpose of enhancing the supply of skilled manpower. The PHVETCs are post-secondary institutions and cover theoretical and practical curriculum in their courses. They award a qualification which is equivalent to a first university degree. The main objective of these colleges is to provide highly qualified human resource to fulfil the requirement of the economic and social transformation plans (El-Hawat, 1995).

Previous studies on Libyan Higher Education (Attir, 2005; El-Magouri; Aldhaif 2001; Keibah 1998; Alfaidy and Ibrahim, 1997; El-Hawat 1995 and 2003) provide evidence of the unplanned nature of the establishment and locations of Higher Education Institutions (HEIs) in the country, which probably occurred as a result of "social pressure" rather than the real demand of an area. El-Hawat (2003, p. 397) makes the following comment about this:

> "Such Universities are normally established at a quick pace and under social pressure without consideration for the basic requirements of university work…. These universities and colleges tend to produce graduates whose education is mostly inadequate, inflecting negative results on society rather than bringing positive results."

In this study it is hypothesised that the establishment and subsequent distribution of PHVETCs in Libya has been carried out inequitably, neglecting the socio-economic characteristics and the true needs of the different regions of the country. Thus, an attempt is made to analyse the development as well as patterns of the PHVETCs distribution in order to measure the spatial equity of these colleges among the 13 administrative Mintaqahs (provinces) see Figure 1. For this study, data and information has been compiled and/or computed from data generated by GDHVECs

of the Secretariat of Education in Libya (GDHVECs, 2000) and from related literature.

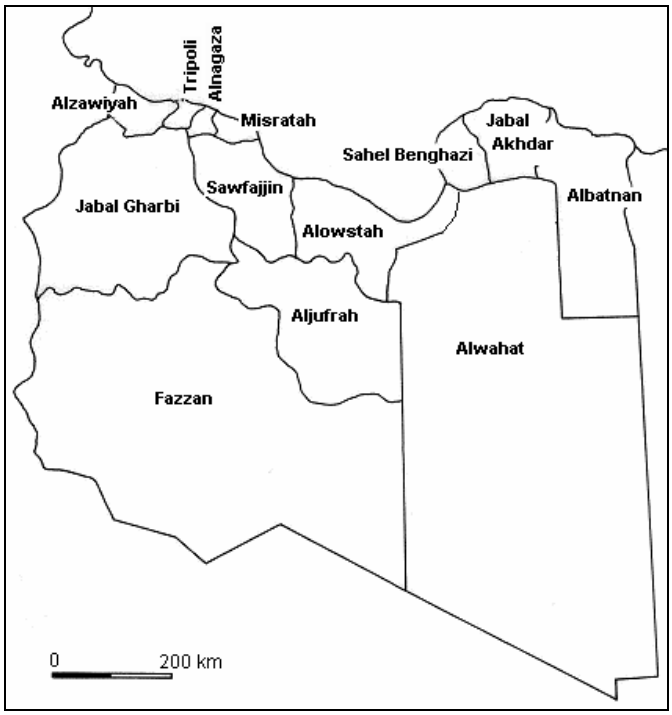

Figure 1: Libya: administrative boundaries of Mintaqahs, 1995
Source**:** Secretariat of Planning, 1978, pp. 25-6 based on data from NAID (no date).

2. DEFINITION OF TERMS

In general terms, equity can be defined as the equality of being equal or fair. In higher education, Teferra and Altbach (2003) identify different aspects of equity in African higher education including the inequitable distribution of and access to HEIs. This includes different positions between regions, men and women, the rich and poor, and rural and urban communities. Truelove (1993) points out that spatial equity "means treating equals equally irrespective of where they live". However, Talen (2001, p. 468) has mentioned four categories of spatial equity as follows:

> Firstly, equity can be defined as equality, in which everyone receives the same public benefit, regardless of socioeconomic status, willingness to pay, or other criteria… Second, equity in the distribution of public benefit can be predicted on the basis of need… Third, the equitable distribution of services or facilities can be based on demand… Finally, equity can be based on market considerations, where cost of service is a key factor in distribution.

In this paper, however, spatial equity of PHVETCs distribution will refer to differences in the distribution of these colleges and related subjects.

3. DEVELOPMENT OF PHVETCS IN LIBYA

Most of the studies that dealt with Libyan socioeconomic issues have mentioned the neglect in the area of manpower development in the country, and consequently have emphasised need for VET as a key factor to address the most pronounced problem of the shortage of skilled labour (Alshaikh 1972; IBRD 1960; UNESCO 1952). Historically, during the colonial period (1551-1951) there were no HEIs in the

country. In fact it was not only HEIs that were unavailable, primary and secondary levels also were very few (Algomaty, 1975; Alshaikh, 1972; Wheeler, 1966). However, since the discovery of oil in the country, the provision of education facilities has been given high priority in the country and free education is provided at all levels. As a result the educational institutions and enrolments have increased significantly (Deeb and Deeb 1982; Dughri 1980).

Until 1980 Libyan society did not show much interest in VET especially at tertiary level. This situation aggravated as a result of extended legacy persistent of negative attitude towards technical and manual work (Al-Said, 1990; Alfaidy and Muftah, 1989) on one hand and unpopularity of VET among secondary students on the other (Al-Said 1990). This imbalance in the education system did not assist socioeconomic development plans that the country had embarked on since the early 1970's. Because of this situation, Libya, like other oil exporting countries, has had to rely heavily on expatriate labour to embark on its rapid socioeconomic development (Birks and Sinclair 1980; Secretariat of Planning 1999).

As stated earlier, because of imbalanced education system Libyan education planners came-up with what has been known as the "New Educational Structure Initiative" (Secretariat of Education 1982). This plan placed high priority to vocationalisation of the higher education sector which later became known as Public Higher Vocational Education and Training Colleges (PHVETCs).

Since the mid 1980s, the country has experienced unprecedented expansion in this type of HEIs. The number of colleges increased from 54 in 1995/96 to a country-wide network of 85 PHVETCs in 2000 with growth rate of 55.5 percent. Also, the total students enrolment has increased from 27,584 to 64,870 students with growth rate of 131 percent during the same period (Table 1).

Table 1: Enrolment of PHVETCs in Libya 1999/2000

Type of College	**1996**		**2000**	
	Colleges	**Students**	**Colleges**	**Students**
Comprehensive	14	6,563	23	13,432
Specialized	17	9,589	25	17,938
Trainer Teachers	8	3,510	9	6,714
Teachers Training	15	7,922	28	26,886
Total	54	27,584	85	64,870

Source: GDHVECs, 2000, different pages and NCETR, 1996, pp. 82-88.

Notwithstanding, numbers of the PHVETCs increased substantially during the last ten years or so, there are still some embedded problems in the system that affects its performance. The PHVETCs which are considered as the main supplier of highly skilled manpower, failed to attract required enrolments as the majority of secondary graduates prefer academic HEIs. On the other hand they are also unable to produce required graduates both in quality and quantity. This can be attributed to unplanned nature of the establishment of the PHVETCs in terms physical and human resources (Aldhaif 2001; Alfaidy and Ibrahim 1997; El-Hawat 1995 and 2003).

4. SPATIAL EQUITY OF PHVETCs DISTRIBUTION

This section examines the spatial equity of the PHVETCs. This is measured by using certain spatial and educational indices such as student enrolments to population,

females to males and student/staff ratios and some other relevant techniques (Fonseca and Andrews 1993; UNESCO 1964).

Until the late 1970s almost all HEIs in Libya were concentrated in two cities namely Tripoli and Benghazi. These two cities are first and second largest urban centres in Libya respectively. This concentration of HEIs denied some under-represented groups (people from rural and low socioeconomic status) the benefits of higher education learning. This became a strong factor that influenced students from rural areas to migrate to where higher education was available (Harrison, 1967). Some analysts, however, have partially attributed the changes in country's population structure and distribution to the concentration of such education opportunities in certain cities (El-Kikhiya 1995; El-Hawat, 1995; Harrison, 1967).

However, as mentioned earlier since the beginning of the 1980s there has been deliberate policy of the educational planers to place particular importance on ensuring equal distribution of HEIs to all parts of the country (Alfaidy and Ibrahim 1997; El-Hawat, 1995 and 2003). This policy was set to achieve two main goals: a) to maximise equitable access to HEIs, and b) to enhance the supply of skilled manpower needed for the socioeconomic development plans. PHVETCs have been established for this purpose and in 2000 the total number of PHVETCs was 85 (Figure 2).

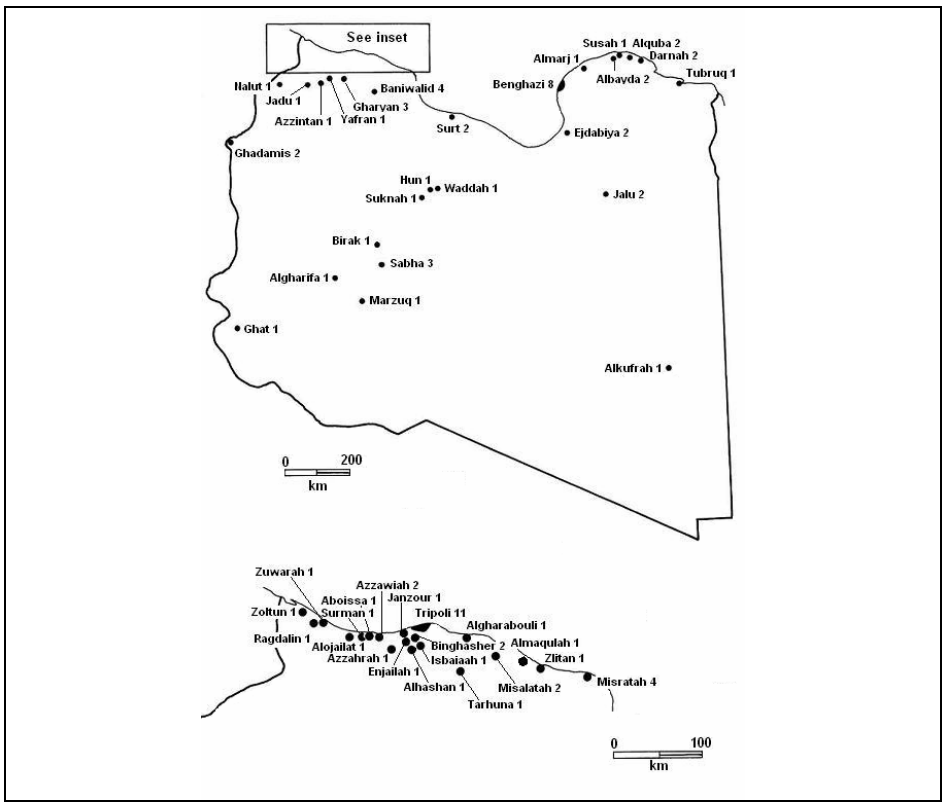

Figure 2: the Distribution of PHVETCs in Libya, 2000
Sources: The Secretariat of Planning, 1978, pp. 25-26, and appendix 1

4.1. The Colleges

These colleges are distributed among the 13 Mintaqahs of the country. Therefore each Mintaqah has at least one College. Indeed, as mentioned earlier, it has been a deliberate policy of the educational planners over the course of past years to spread-out PHVETCs facilities in different parts of the country (El-Hawat, 1995). However,

Tripoli in particular, had the significant share of the PHVETCs with more than 21 percent of the total colleges (Table 2).

Table 2: The distribution of population and PHVETCs' students in Libya, 2000

No	Mintaqah	No. of Colleges	Population (1995)		Students (2000)		Students per 1000/pop.*
			No.	Percent*	No.	Percent*	
01	Albatnan	1	151,240	13.4	1,249	1.93	8
02	J. Akhdar	8	381,165	7.92	4,246	6.56	11
03	S. Benghazi	8	665,615	13.83	8,927	13.80	13
04	Alowstah	4	240,574	5.00	1,517	2.35	6
05	Alwahat	3	62,056	1.29	540	0.83	9
06	Aljufrah	3	39,335	0.82	750	1.16	19
07	Sawfajjin	4	76,401	1.59	1,890	2.92	25
08	Misratah	6	488,553	10.15	3,837	5.93	8
09	Alnagaza	4	244,553	5.08	2,120	3.28	9
10	Tripoli	18	1,313,996	27.31	22,266	34.42	17
11	Azawiyah	9	517,395	10.75	8,995	13.90	17
12	J. Gharbi	10	316,970	6.59	3,953	6.11	12
13	Fazzan	7	314,029	6.53	4,580	7.08	15
Libya		85	4,811,902	100.0	64,690	100.0	13

Source: Computed by the author from data in GDHVECs (2000) and Secretariat of Planning (1999, p. 78). * Numbers and percentages are rounded to the nearest integer

Another aspect of the locational distribution of PHVETCs that has some bearing on opportunity in access to HEIs is the rural-urban differential. As can be observed from Figure 3, more than 61 percent of the PHVETCs are located in settlements of more than 50,000 inhabitants. Furthermore, according to available data (Appendix 1), 56.6 percent of the total PHVETCs are located either in the national capital or in district capitals. This pattern of distribution could be attributed to the heavy concentration of and hence access to HEIs opportunities in the more-developed areas (major cities and towns) at the expense of other disadvantaged areas.

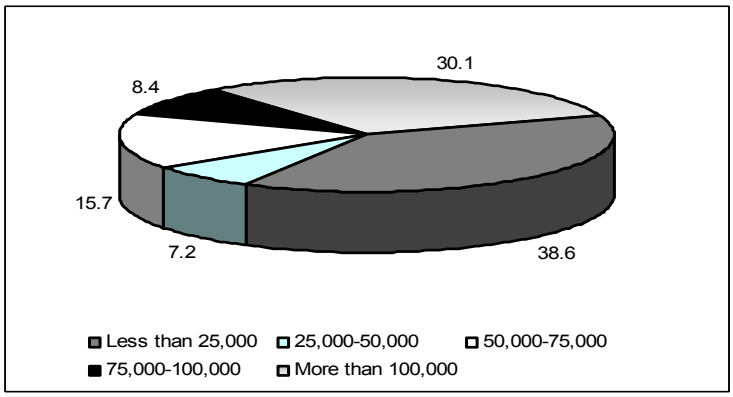

Figure 3: Percentage distribution of PHVETCs locations according to settlement size
Source: Computed by the author form data in Appendix 1.

4.2 Enrolment

The distribution of enrolments across the country's 13 Mintaqahs is shown in Table 2. As can be seen from Table 2, there is to some extent similarities in the percentage distribution according to each Mintaqah share of population and students.

Nevertheless, Tripoli in particular which is the largest Mintaqah in terms of population has proportionally more students than its population share. To measure the relationship between population and enrolments in the 13 Mintaqahs the Spearman Rank Order Correlation Coefficient has been administrated.

The formula for determining the Spearman Correlation Coefficient is (Rogerson, 2001, p. 94):

$$r_s = 1 - \frac{6(\sum D^2)}{N(N^2 - 1)}$$

Where 6: is a constant, D: refers to the difference between subjects ranks on the two variables, and N: is the number of cases.

The correlation coefficient has been computed between the two variables (enrolments and population) and found to be = 0.923. This result suggests a strong, positive and statistically significant relationship between the figures of population and enrolments in the 13 Mintaqahs of the country. Apparently this means that number of population in the Mintaqahs determines to a large extent the number of students enrolled in the PHVETCs.

Another way of examining the availability of education opportunities in any area either on national or local levels is the number of students per 1,000 inhabitants. As shown in Table 2, in the national level there were 13 students per 1,000 inhabitants with significant Mintaqahs differences. Taking the national average as a yardstick, there was only one Mintaqah that has similar national average (Sahel Benghazi). Whereas above the national average there were five Mintaqahs, four are located in the north and only one in the south. These Mintaqahs were ranged between 25 students as the case of Sawfajjin and 15 students as in Fazzan. On the other hand the rest seven Mintaqahs were below the average. These Mintaqahs ranged between as little as six students as the case of Alowstah and 11 students as in Jabal Akhdar.

4.3 Gender dimensions

One striking aspect of inequity of access to education in the developing societies is the female/male enrolments differential (Teferra and Altbach 2003; Akpan 1987). Clearly, gender inequity at national level has decreased enormously over the course of the past few years (El-Magouri, 2005; Al-Hawat, 2003; Bubtana and Sarakbi 1991). According to El-Magouri, (2005, p. 82) the proportion of female students to the total student enrolment has increased from 10 percent in 1970 to more than 50 percent in 2001. This also is true in the case PHVETCs provision. In 2000, the proportion of female enrolment at national level gave an impression that it was significant (approximately 48 percent). However, a closer look at Table 3 shows considerable variation on the Mintaqahs' level. Among the 13 Mintaqahs disparity in access to PHVETCs was smallest in Alnagaza (18.1 percent) and highest in Alwahat (75.7 percent).

This considerable variation between the Mintaqahs can be explained by socio-cultural characteristics on one hand and types of courses that are offered by the colleges on the other. Broadly speaking, until recent years Libyan society in general, and in rural areas in particular, there was bias towards female access to HEIs, (El-Magouri, 2005; Alshaikh 1972). However, there is a general trend in Libyan society that encouraging girls in particular to enrol in teachers training colleges if this type of HEIs is available in one area. Teaching is considered as the most favoured work for

women among many other employment opportunities (El-Magouri, 2005; Keibah, 1998).

Table 3: The distribution of the Female/Male enrolment in Libya, 2000

No	Mintaqah	Males	Females	Female/Male %
01	Albatnan	387	862	69.0
02	Jabal Akhdar	2,196	2,050	48.3
03	Sahel Benghazi	4,686	4,241	47.5
04	Alowstah	585	932	61.4
05	Alwahat	131	409	75.7
06	Aljufrah	367	203	27.1
07	Sawffajjin	1,241	649	34.3
08	Misratah	2,293	1,544	40.2
09	Alnagaza	1,737	383	18.1
10	Tripoli	10,921	11,345	50.9
11	Azawiyah	4,386	4,609	51.2
12	Jabal Gharbi	2,338	1,615	40.8
13	Fazzan	2,430	2,150	46.9
Libya		33,698	30,992	47.9

Source: Computed by the author from data in GDHVECs (2000).

4.4 The Faculty

In 2000 the total number of academic staff at the PHVETCs was 4,845 (GDHVECs 2000). This number was distributed into three categories: Full-time national, full-time non-national, and part-time (Figure 4).

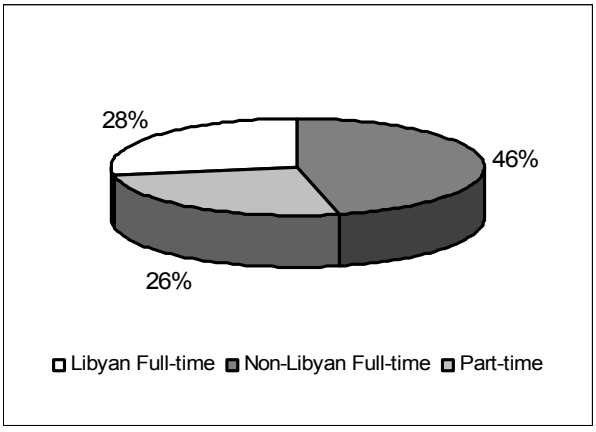

Figure 4: Distribution of faculty members in the PHVETCs in Libya, 2000
Source: Computed by the author from data in GDHVECs (2000).

It is clear from Figure (4) that PHVETCs rely noticeably on non-Libyan faculty as well as part-time faculty for the delivery of instruction. The full-time non-Libyan constituted almost 46 percent of the total faculty members in 2000. In this respect, there is sufficient evidence from the literature (Attir, 2005; EUN 2003; Bubtana and Sarakbi 1992; Muftah 1982) indicating that the lack of faculty members has long been problem that affected the system of higher education and will probably continue to affect it. Until now, Libyan higher education still depends to a large extent on expatriate for the delivery of instruction.

The problem of shortage of faculty staff is not only because Libyan higher education is incapable of producing sufficient number of academic staff but it can also be attributed to the impact of the phenomenon of brain drain, i.e. the loss of qualified and talented professionals to other countries (Attir, 2005; Teferra and Altbach, 2003).

Turning now to the distribution issues of PHVETCs, an important indicator for measuring equity in education system is the ratio of students to staff members. As can be seen from Figure 5 the overall ratio at national scale is 13 students per staff member, however, this ratio varies significantly at regional level. It ranged between 25 as in Albatnan and seven as is the case of Aljufrah and Misratah. While, there was only one Mintaqah that had the similar national average (Sahel Benghazi) there were five that exceeded the average and seven were below the average. This pattern of distribution can be attributed to: 1) the general distribution of population, 2) the rank and importance of city/town in the urban hierarchy system and 3) the above mentioned socioeconomic and political aspects.

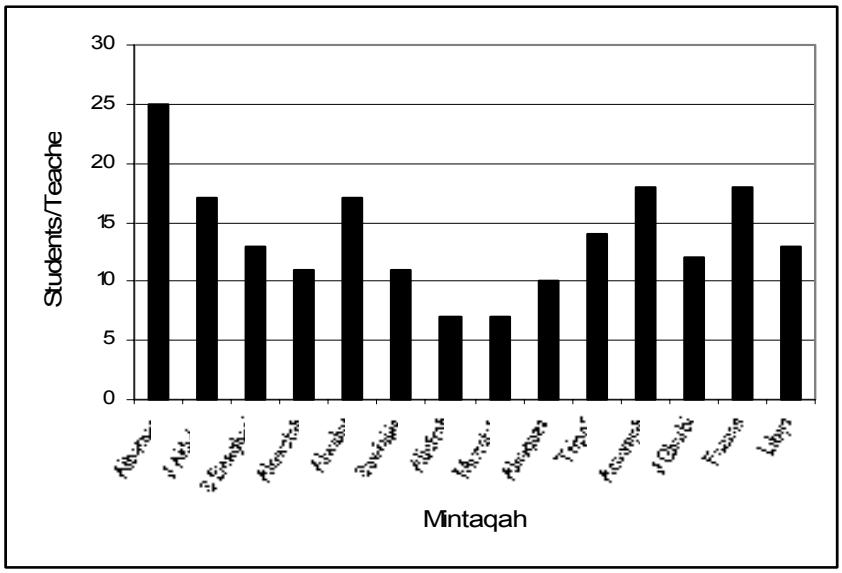

Figure 5: The distribution of students/staff in 2000
Source: computed by the author from data in GDHVECs (2000).

4.5 The Courses

According to GDHVECs (2000) the total number of courses provided by the PHVETCs for 1999/2000 was 368 courses. These courses are shown in Table 3 by Mintaqah and type. It is clear from the Table 4 that some Mintaqahs such as Tripoli and Jabal Gharbi were largely advantaged in terms of having more courses, followed by Azawiyah. These three Mintaqahs constituted 163 courses (more than 45 percent). Libya as a developing country needs more trained manpower in the areas of engineering and technology, however, PHVETCs continue to train and produce a significant number of graduates in education field. Table 4 shows, that there were 146 courses (39.7 percent) in the areas of engineering and technology whereas the area of education had 188 (39.7 percent). It is perhaps evident that the distribution colleges as well as courses have been carried out without an appropriate plan and/or done haphazardly.

Table 4: The distribution of PHVETCs' courses by type Mintaqahs in Libya, 2000

No	Mintaqah	Education	Fine Arts & Media	Management & Finance	Engineering	Architecture & Cons.	Computer Applications	A/C & Refrigeration	Hotel & Tourism	Agriculture Technology	Aquatic Technology	Medical Technology	Female's Occupations	Social Work	Vehicle Mechanics	Smithy & Welding	Tailoring	Applied Science	Vocational Training	Occupation Certification	Occupation Safety	Telecommunication Tech.	Total	
																							No	%
01	Albatnan	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	2.2
02	J. Akhdar	22	-	1	5	2	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	32	6.7
03	S. Benghazi	10	1	1	4	2	3	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	24	6.5
04	Alowstah	11	-	1	2	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	4.4
05	Alwahat	11	-	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	3.8
06	Aljufrah	3	-	-	3	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	2.4
07	Sawffajjin	9	-	-	5	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	4.3
08	Misratah	16	-	1	8	2	3	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	31	8.4
09	Alnagaza	-	-	2	9	1	2	-	-	-	1	1	-	-	-	-	-	-	1	1	-	-	18	4.9
10	Tripoli	32	4	2	14	4	8	3	2	-	2	-	-	-	1	1	2	-	-	-	1	1	76	20.7
11	Azawiyah	22	-	1	9	3	3	1	-	1	-	-	-	-	-	-	-	1	1	-	-	-	42	11.4
12	J. Gharbi	18	2	2	8	3	8	3	-	-	-	-	-	-	-	-	1	-	-	-	-	-	45	12.2
13	Fazzan	26	1	1	5	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	10.1
Total		188	8	12	74	19	37	10	4	1	3	1	1	1	1	1	3	1	2	1	1	1	368	100.0

Source: Compiled by the author form data in GDHVECs (2000)

5. CONCLUSION

Notwithstanding that the PHVETCs sector has increased substantially during the last ten years or so, there are still some embedded problems in the system that affects its performance. As a result PHVETCs failed to attract required enrolments on one hand and unable to produce required graduates both in quality and quantity that the country needs on the other. As far as the equity of the PHVETCs distribution is concerned, a number of conclusions can be drawn from the above discussion. First, there is a strong correlation between population distribution and PHVETCs, it is clear that population size is a substantial determiner for locational distribution of the PHVETCs. Another feature of the distribution of the PHVETCs is that major cities and towns in general dominate in PHVETCs location.

Tripoli Mintaqah and Tripoli city (the national capital) in particular were the most dominate areas in Libya and comprised respectably about 21 percent and 13 percent of the total colleges in Libya. Secondly, despite the considerable improvement on the issue of gender disparities in more recent years at the national level, the situation was less promising at the Mintaqahs levels. There has been enormous variation between the Mintaqahs which can be to large degree explained by results of local socio-cultural characteristics. Thirdly, higher education system in Libya in general and the PHVETCs in particular, since its inception in late 1950s until present, was not able to fulfil its needs of faculty staff and still depends heavily on non-national and part-time faculty for the delivery of instruction. There is great variation among Mintaqahs in the ratio of students to staff. Finally, the distribution of subject courses by type and Mintaqah suggest unplanned nature of delivery of these courses among Libyan Mintaqahs. As a result, there has been concentration of these courses in specific Mintaqahs.

This study is part of an on-going PhD research entitled “Equity, Accessibility, and Efficiency of Public Higher Vocational Education and Training Colleges in Libya: An Empirical Investigation,” by Saad Elzalitni in cooperation with and supervision of Prof. Mel Less, School of Construction and Property Management, University of Salford, Salford, UK. This research intends to investigate critically the existing distribution of PHVETCs system in Libya. It focuses on three main aspects, namely spatial equity, locational accessibility and the internal efficiency of the system in relation to socioeconomic characteristics of the country.

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Appendix 1: The distribution of PHVETCs according to location in Libya, 2000

Mintaqah	College acronym	Location City/Town	The Pop. of location (1995)	Status of Location
1) Albatnan	A HCTT	Tubruq	88.750	District Capital
2) Jabal Akhdar	DHCTT	Darnah	74.358	Other Town
	DHCCO	,,	,,	,,
	QHCTT	Alqubba	15.627	Other Town
	QHCIT	,,	,,	,,
	BHCTT	Albayda	91.076	District Capital
	BHCCO	,,	,,	,,
	SHCHT	Susah	5.091	Other Town
	MHCTT	Almarj	47.805	Other Town
3) S. Benghazi	SBHCIT	Benghazi	495.418	District Capital
	SBHCMF	,,	,,	,,
	SBHCM	,,	,,	,,
	SBHCEL	,,	,,	,,
	SBHCEO	,,	,,	,,
	SBHCCT	,,	,,	,,
	SBHCSS	,,	,,	,,
	SBHCTT	,,	,,	,,
4) Alowstah	SHCCO	Surt	74.419	District Capital
	SHCTT	,,	,,	,,
	EJHCCO	Ejdabiya	81.121	Other Town
	EJHCTT	,,	,,	,,
5) Alwahat	JHCTT	Jalu	12.220	District Capital
	JHCCO	,,	,,	,,
	KHCTT	Alkufrah	23.339	Other Town
6) Aljufrah	HHCCO	Hun	10.097	District Capital
	WHCTT	Waddan	9.071	,,
	SHCCT	Suknah	8.029	Other Town
7) Sawfajjin	BWHCHI	Baniwalid	56.817	District Capital
	BWHCTT	,,	,,	,,
	BWHCCO	,,	,,	,,
	BWHCEL	,,	,,	,,

8) Misratah	MHCCO	Misratah	161.390	District Capital
	MHCIT	,,	,,	,,
	MHCTT	,,	,,	,,
	MHCHT	,,	,,	,,
	ZLHCIT	Zlitan	83.469	Other Town
	MAHCTT	Almaqulah	9.725	,,
9) Alnagaza	MIHCEO	Misalatah	38.394	Other Town
	MIHCCO	,,	,,	,,
	THCCO	Tarhuna	53.506	District Capital
	GHCCO	Algharabouli	34.584	Other Town
10) Tripoli	TRHCMO	Tripoli	1.054.845	National Capital
	TRHCMF	,,	,,	,,
	TRHCCT	,,	,,	,,
	TRHCEL	Tripoli	1.054.845	,,
	TRHCHT	,,	,,	,,
	TRHCMT	,,	,,	,,
	TRHCCO1	,,	,,	,,
	TRHCCO2	,,	,,	,,
	TRHCIT	,,	,,	,,
	TRHCTT1	,,	,,	,,
	TRHCTT2	,,	,,	,,
	BGHCTT	BinGhasher	13.529	Other Town
	BCHCCO	,,	,,	,,
	ISHCHO	Isbaiaah	17.042	,,
	JAHCTT	Janzour	53.203	,,
	ZHCCO	Azzahrah	17.520	,,
	ENHCIT	Enjailah	12.210	,,
	HHCAT	Alhashan	4.861	,,
11) Azawiyah	AZHCCO	Azzawiyah	109.864	District Capital
	AZHCTT	,,	,,	,,
	OJHCWI	Alojailat	73.367	Other Town
	ZUHCME	Zuwarah	26.833	,,
	ZOHCTT	Zoltun	8.654	,,
	ABHCTT	Aboissa	15.216	,,
	RHCIT	Ragdalin	20.907	,,
	TIHCTT	Tiji	4.306	,,
	SUHCCO	Surman	44.728	,,
12) Jabal Gharbi	GHCCO	Gharyan	23.339	District Capital
	GHCTT	,,	,,	,,
	GHCHI	,,	,,	,,
	YHCCO	Yafran	24.177	,,
	NHCCO	Nalut	13.282	Other Town
	AZHCTT	Azzintan	15.427	,,
	JDHCCO	Jadu	10.090	,,
	GDHCTT	Ghadamis	7.978	,,
	GDHCCO	,,	,,	,,
13) Fazzan	SBHCIT	Sabha	84.469	District Capital
	SBHCTT	,,	,,	,,
	SBHCCO	,,	,,	,,
	MAHCTT	Marzuq	13.679	Other Town
	BIHCTT	Birak	10.987	,,
	AGHCTT	Alghraifa	5.383	,,
	GAHCPHT	Ghat	3.560	Other Town

Source: Compiled by the author form data in GDHVECs (2000).