

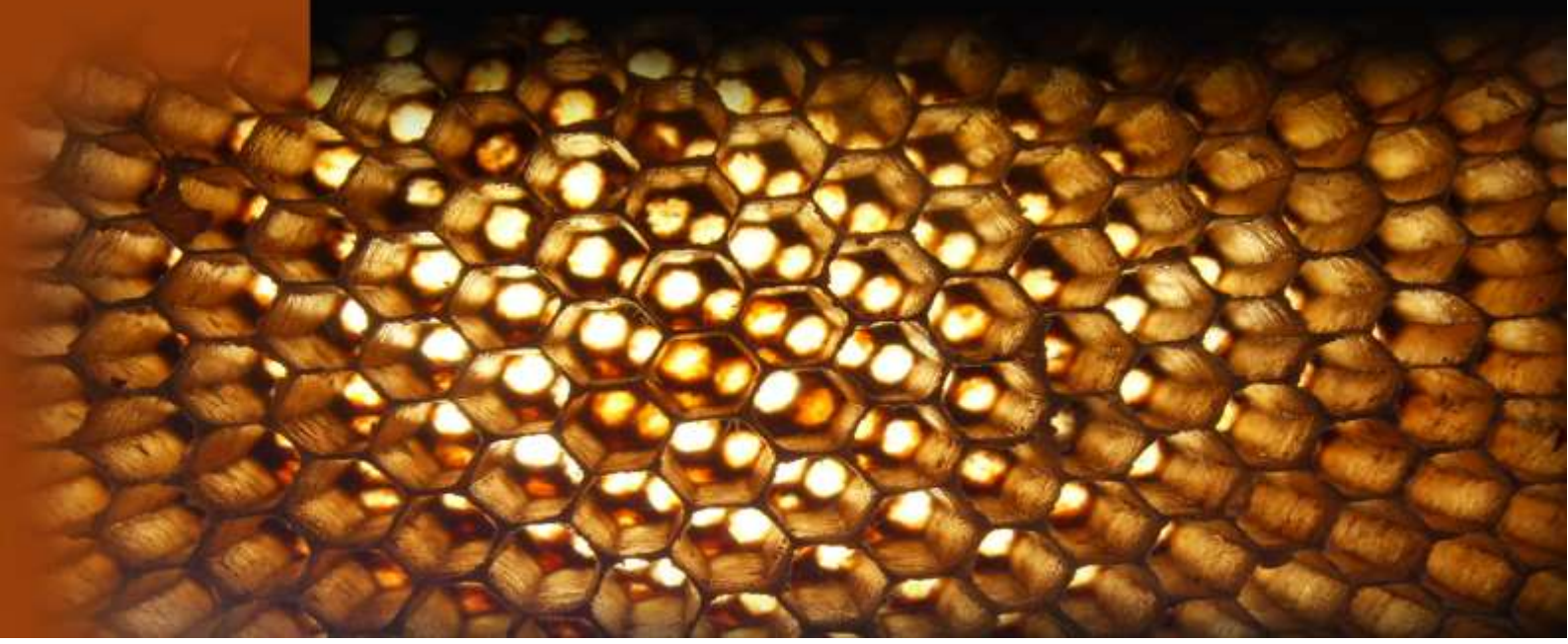
Tertiary and Vocational Education Commission

*Research Cell*

Study on Female Participation in  
Vocational Training in  
Construction, Mechanical and Electrical  
Occupations

Research By:

TVEC



## Executive Summary

The female participation in the labour market is considerably low in Sri Lanka. Considering past years the unemployment rate for female is almost double of male unemployment. Women have faced obstacles in accessing skills development for some occupational areas. Considering the TVET sector programs female participation is lower than that of male participation. Especially it is worst when considering technical related vocational training programmes.

Therefore, the main objective of the research is to find the factors that affect on females to take vocational training in Technical Occupations. Other objectives are to find out difficulties encountered by females to follow technical training during the courses and to find out prospects and constraints for female employment in technical trade in Sri Lanka.

Based on analysis and presentation following conclusions were drawn on female participation in vocational training in technical occupations. As majority of trained female state that no any difficulty at the training place during the training period it can be concluded that there is a positive environment for females to take technical courses at training places. The living condition of these trained females can be considered as low-income family level. It can be concluded that majority of females are willing to take construction trade training than mechanical or electrical trade training courses. As majority of female are unable to find jobs in their training area it has been seen that

woman has the lower chance of getting an employment in technical related occupations. The main reason to this unemployment is the gender.

It has been seen that there is a social barrier for getting technical jobs. As this is a social barrier Government should provide inducements and intensives in recruiting females to technical occupations. Further study is recommended in order to explore job opportunities in technical peripheral areas. The public sector training places have favorable environments for females, conducting special awareness programmes would be more useful to increase females participation.

## Acknowledgment

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## **List of Abbreviations**

G.C.E. (A/L) : General Certificate of Education (Advanced Level)

TVET : Technical and Vocational Education and Training

TVEC : Tertiary and Vocational Education Commission

TVEC : Tertiary and Vocational Education Commission

DTET: Department of Technical Education and Training

NAITA: National Apprentice and Industrial Training Authority

VTA: Vocational Training Authority of Sri Lanka

NYSC: National Youth Services Council

SLIATE: Sri Lankan Institute of Advanced Technical Education

CGTTI: Ceylon – German Technical Training Institute

## 1: Introduction

The female participation in the labour force in Sri Lanka is considerably lower than that of males resulting high unemployment among the women. The unemployment rate for females is 7.5 per cent that is almost double of male unemployment in 2010. Sri Lankan women have faced obstacles in their access to skills development for employment. This has left a generation of women with limited skills for any kind of paid employment. Not only that they are the group with low literacy rate in the country.

Women's participation in economic activities remains largely contributing family worker category based and not monetarily compensated. Out of all contributing family worker category 71.8 per cent were females in 2010. Most women's work is limited to tasks that are related to agriculture, handloom, weaving, tailoring, embroidery, and other types of sewing, all of which are performed within the household. Only 33.4 per cent of females are involving in paid employment.

The unemployment rate among the educated group (G.C.E. (A/L) and above) is reported to be the highest that is 11.6 percent in 2010. It is 7.9 percent and 15.8 percent for male and female respectively. This reveals that the problem of unemployment is more acute in the case of educated females than males.

Vocational training activities enable young women to acquire appropriate knowledge and skills to meet basic needs, open doors to job opportunities. Nationwide, female participation in TVET programs is lower than that of male



participation. Especially it is worst when considering technical related vocational training programmes. The purpose of this research is to draw attention low participation in selected technical and vocational and education and training programmes.

### 1.1: Rationale

Young females are considered as a vulnerable groups and unemployment among female is lower than that of males. One reason for lower rate of employment of female is that they are not employed in technical occupations or they are seeking employment in technical occupations. That may be reflected by lower rate of female participation in vocational training in some technical occupations. In fact, it is well known fact that female participation in training in construction, mechanical and electrical trades are very low.

This research aims unearth the reason for lower rate of participation of females in selected technical occupations and these research outcome would be helpful to formulate strategies to promote female participations in training these technical occupations.

### 1.2: TVET sector in Sri Lanka

The formal TVET sector goes back to 1893 with the establishment of first Technical College in Maradana. With this long history TVET sector has grown in number and complicity. Currently Ministry of Youth Affairs and Skills Development has the primary responsibility of formulating and implementing a national policy for the technical education and vocational training sector in Sri Lanka. Its main objective is the provision of high quality Technical and

Vocational Education and Training programs that meets the globally competitive human resources development requirements in keeping with the technological development and changing needs of the industry.

There are fifteen public sector training providers operating under the Ministry. In addition to that private and NGO sector are involving in TVET training under the supervision of TVEC which the policy making body of the TVET sector.

Major public sector institutions are DTET, NAITA, VTA, NYSC, SLIATE, and CGTTI.

- **Department of Technical Education and Training (DTET)**

DTET has a network of 38 Technical Collages including 9 Colleges of Technology. These, nine technical colleges have been upgraded to conduct diploma level courses.

- **National Apprenticeship and Industrial Training Authority (NAITA)**

NAITA has an island wide network of inspectorate to conduct apprenticeship programmes. NAITA is the successor to National Apprenticeship Board (NAB).

- **Vocational Training Authority of Sri Lanka (VTA)**

VTA has the widest network of training centres with certificate level training programmes. It has approximately 270 training centres. Established by Act No. 12 of 1995, the Vocational Training Authority has a special focus on training youth in rural areas.

- **National Youth Services Council (NYSC)**

Established in 1970 under the National Youth Services Council Act, undertakes the training of youth in rural areas as a subsidiary function.

- **Sri Lankan Institute of Advanced Technical Education (SLIATE)**

Established by Act No. 29 of 1995, provides training towards higher National Diploma and Diploma Level Qualifications and operates under the Ministry of Higher Education.

- **Ceylon – German Technical Training Institute (CGTTI)**

It is the main institution for the training of automobile-related technicians.

Majority of TVET sector training courses are highly technical. In general, vocational training courses are considered as blue collar job generated training. Specially Mason, carpenter, welder, electrician...etc.

Even though access to education and training is a major determinant of young people's future capacity to participate and flourish in society mostly these courses are male dominated courses. There is strong social demand for vocational training in Sri Lanka, with demand outstripping supply.

The importance of vocational training institutes for young women and low-income families cannot be overestimated. Vocational training institutes are not only cheaper than other post-secondary education institutions but also located in close proximity to many rural areas. They are often the only training opportunity offered to young women because of social attitudes which do not value women's education and discourage daughters from attending distant

educational institutions. In Sri Lanka, for example, more than half of all enrolments in vocational institutes (52 percent) come from rural families living below the poverty line, with 45 percent of male trainees and 66 percent of female trainees coming from such backgrounds.

This is particularly pronounced in female-dominated training areas, and results in higher levels of unemployment among vocationally trained women. While women have achieved high participation rates in general education, their participation in vocational training is confined mainly to basic-level and traditionally female courses and programs. Over half of women in vocational training are found in clerical courses. Only about 20 percent of women are found in technology-oriented training, despite the unmet demand for skilled workers in such areas.

The volume 38, July/August 2011 of the D+C International Journal reveals that “After decades of campaigning for women’s rights, gender gaps persist in all human societies. Women all over the world tend to be burdened with household chores. It is almost exclusively their duty to take care of children, the elderly and sick. In the labour market, women tend to get low-paying jobs without social protection.”

### 1.3: The objectives of the research are

- To find the factors that affect on females to take vocational training in Technical Occupation.
- To find out difficulties encountered by females to follow technical training during the courses
- To find out prospects and constraints for female employment in technical trade in Sri Lanka.

### 1.4: Limitations of the Study

The study is mainly focused only the students how have participated only for Technical courses which have traditionally low participation of females. As the time and financial resource, limitation study has to limit only to the above-mentioned group. Moreover, it was not possible to get information from North province.

## 2: Methodology

This section deals with the population of the study, how the sample was selected, the instruments used for the survey and the analysis methods.

### 2.1: Sample Selection

The sampling frame of the study is only limited the technical courses such as Construction, Electrical and Mechanical. The main VT organizations that are VTA, DTET, NAITA, CGTTI, and NYSC were selected as population. However, there were no female participants at the NYSC in 2008. Sample frame was prepared based on administrative records. According to the passed out data it is observed that female participation is very low for the technical subjects. Therefore, population is considered as the sample. In the cohort year, 2008 there were 333 females passed out from these four institutes. Therefore the population is 333.

**Table 2.1: Number of Trained Females by Course Name and Institute**

Course Name	VTA	NAITA	DTET	CGTTI	Total
Mason	29				29
Plumber	31		22		53
Radio/TV Repairing	6				6
Electric Motor Winder	4				4
Electrician	10			4	14
Welder	14		3		17
Automobile Painter	1				1
Aluminum Fabricator	18				18
Auto Tinker	2				2
Mechanic	0	6		3	9
Ref. & Ac.	0			3	3

Quantity Surveyor	0		79		79
Draftsman	0		46		46
Electronic	0		2		2
Construction	20		1		21
Civil Engineering	0		27		27
Carpenter	1		1		2
<b>Total</b>	<b>136</b>	<b>6</b>	<b>181</b>	<b>10</b>	<b>333</b>

## 2.2: Instruments and Data Collection

The mail questionnaire method is used to collect the data. The questionnaire can be mainly considered as structured regardless inclusion of very few open ended questions. There were 16 main questions. The questionnaire is prepared in Sinhala, a local language which majority can read. The questionnaire was mailed with a stamped envelope and explanatory letter to female participants throughout the country.

## 2.3: Analysis of the Data

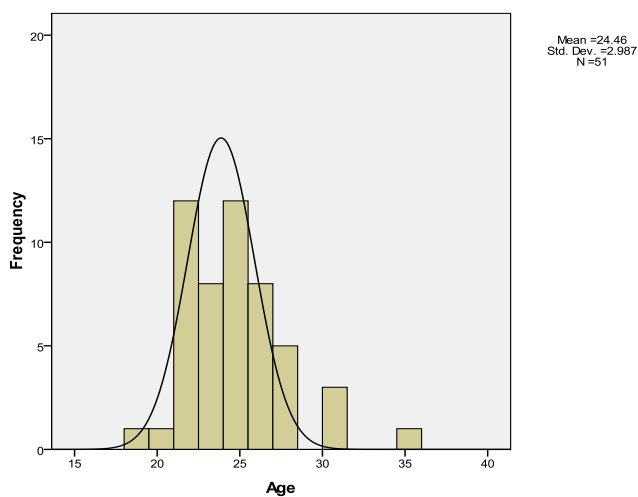
The collected data were feed in to an Excel worksheet. Simple cross tabulation and graphical method is used to analyze data. SPSS software is used to analyze the data.

### 3: Analysis and Interpretation

#### 3.1: General Information

From all trained females, only 51 were responded to the questionnaire. The analysis is only based on these responses. Therefore the response rate is 15 percent.

**Figure 3.1: Distribution of the Age**



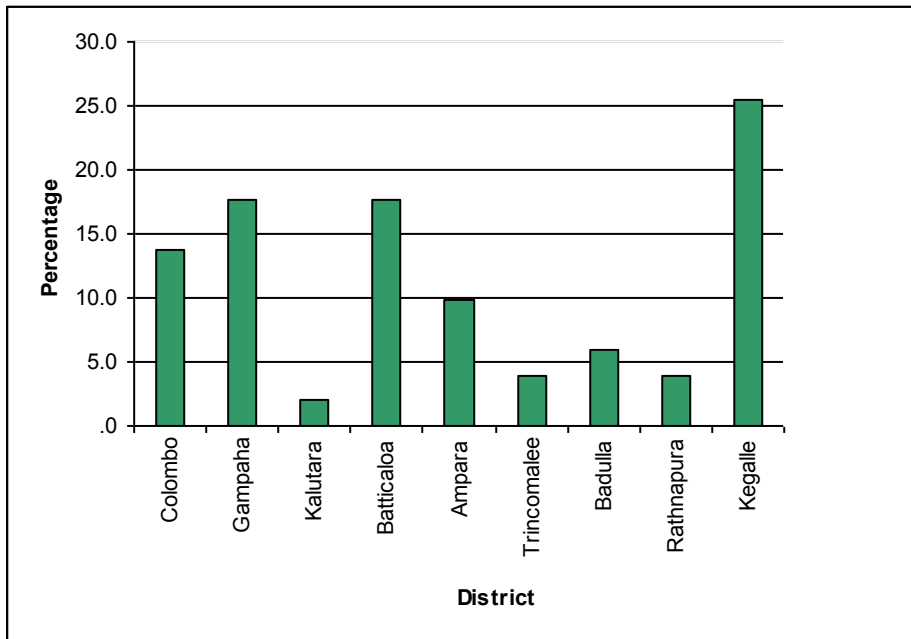
**Table 3.1: Distribution of the Age**

Age	Number	Percentage
19-25 yrs	34	66.7
25-30 yrs	15	29.4
More than 30 yrs	2	3.9
Total	51	100.0

According to the graph, 65 percent of trained females are between ages of 19-25 years. Only 3.8 percent, which is the lowest, belong to more than 30 years of age category. It can be seen that young females tend to follow technical courses than mature females.



**Figure 3.2: Percentage Distribution of the Technical Courses Trained Female Students by District**



The Graph shows the percentage distribution of the trained females by technical stream. It has seen that highest Student participation for the technical courses from Kegalle district. A significant participation is shown from Batticalalaoa, Gampaha and Colombo district. Out of 25 districts, only nine districts have shown female participation for the technical courses.

**Table 3.2: Percentage Distribution of the Father's Job Status**

<b>Major Occupation Group</b>	<b>Percentage</b>
Professionals	2.0
Technicians and associate professionals	5.9
Clerks	7.8
Service workers and shop and market sales workers	7.8
Skilled agricultural and fishery workers	21.6
Craft and related workers	3.9
Plant and machine operators and assemblers	3.9
Elementary occupations	15.7
No response/other	31.4
	100.0

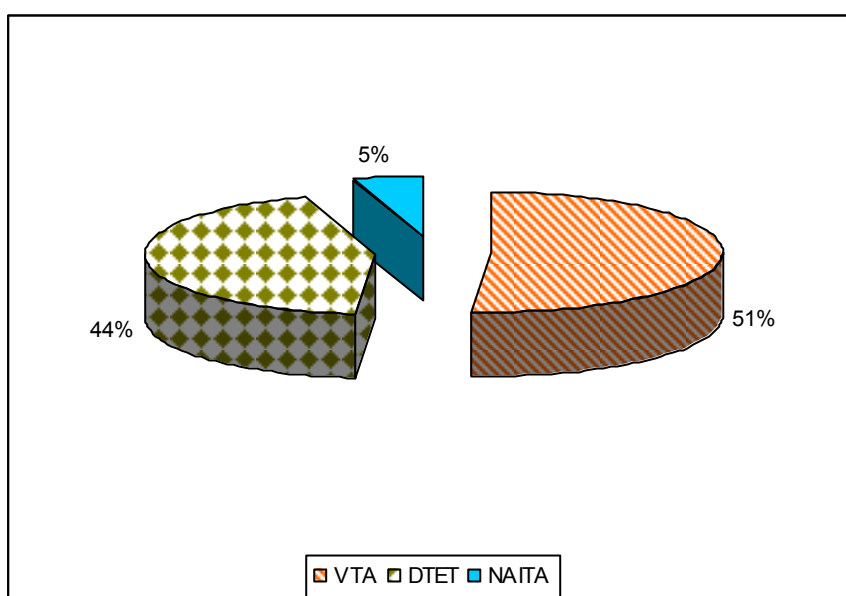
The table shows the percentage distribution of father's status of the trained females who did courses at technical stream. Majority of fathers of technical courses trained students belong to Skilled agricultural and fishery worker category. In general, skilled agricultural and fishery worker category jobholders are considered to be low-income generated persons. Therefore, living condition of these trained females can be considered as low-income family level.

**Table 3.3: Gross Monthly Income of the Family**

	Range	Mean	Median	Mode
Gross Monthly Salary(Rs.)	38000	13020.54	8260.00	5000

Out of all respondents, only 37 stated their Monthly gross income of the family. The mean of the monthly gross income of the family is Rs. 13,020. The income variability is high among these families. It can be seen that majority of families earn 5000 per month.

**Figure 3.3: Percentage Distribution of Technical Courses Trained Females by Institute**



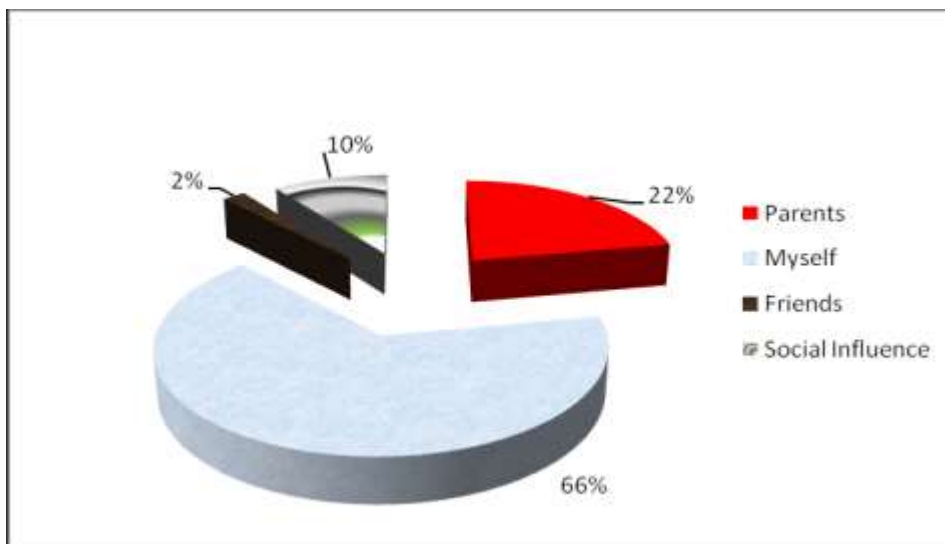
According to the pie chart, it can be seen that 51 percent that is the highest percentage of females trained from the VTA. The lowest percentage that is 5 percent is recorded for the NAITA, the apprentice-training provider in Sri Lanka. VET, DTET and NAITA are major training providers who have the network of training centers throughout the country.

**Table 3.4: Percentage Distribution of the Trained Females by Training Stream**

Training Trade	Percent
Construction	74.5
Electrical	5.9
Mechanical	15.7
Other	3.9
Total	100.0

As shown in the table it has been seen that majority, that is 74.5 percent of trained females are from Construction training stream. About 15.7 percent of trained females are from Mechanical stream that is the second highest.

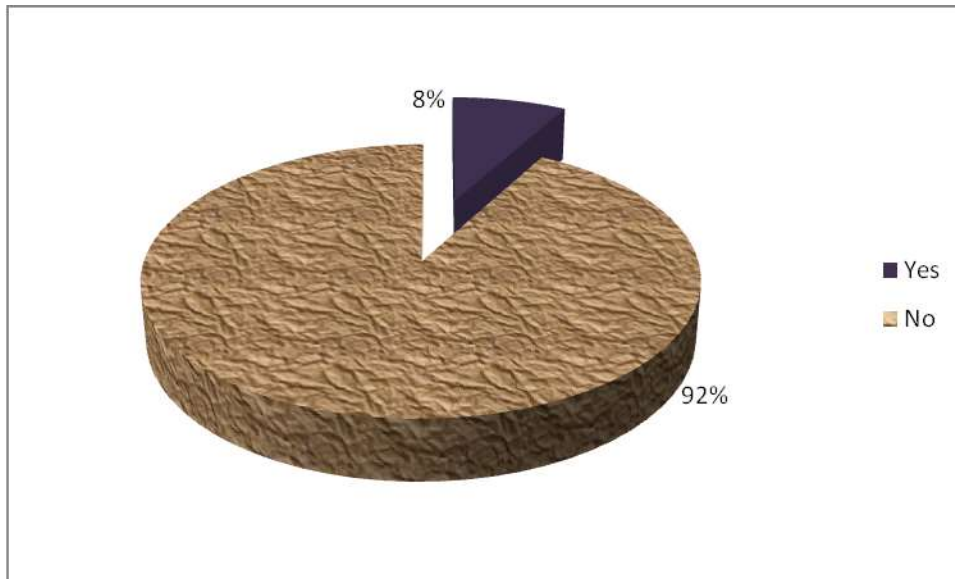
**Figure 3.4: Percentage distribution of the Reason of Selecting the Training Programme**



It has been shown that 66 percent of trained females selected the course by themselves. Only 10 percent are influence by the society.

### 3.2: Perception on the Training Centre

**Figure 3.5: Percentage Distribution of the Agreement of Difficulty Faced When Enrolling at the Training Programme**



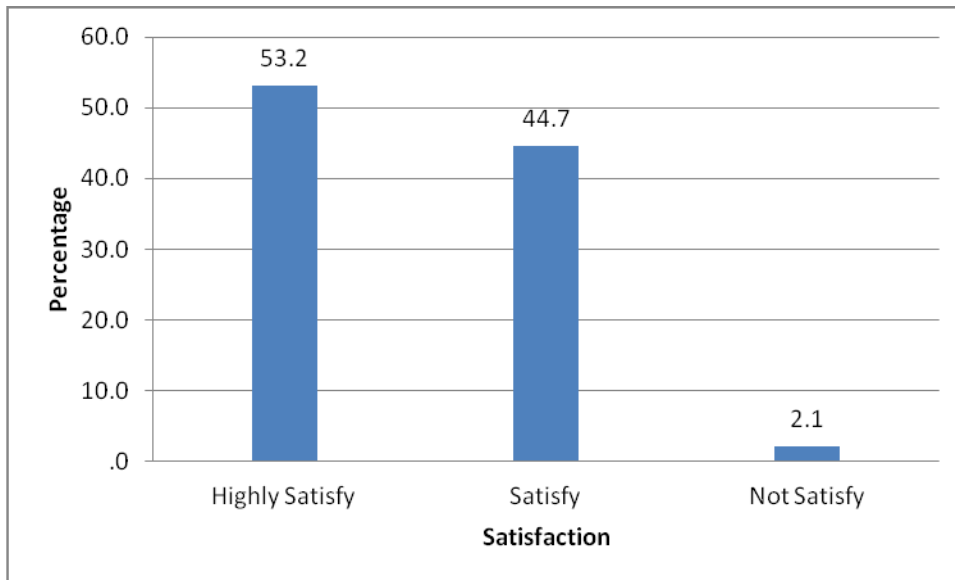
According to the graph 92 percent of Trained, females state that they have not faced any difficulty to enter a training programme.

**Table 3.5: The Opportunity of entering the Technical Training Programme**

	Percentage
Encourage females	17.4
Equal opportunity	65.2
More opportunity for males	17.3

In order to identify the trained female perception on opportunity for technical training programme the question “What is your idea on entering females to technical training courses?” was asked. As shown in the table 65 percent of females stated that they believe training providers give equal opportunity for entering females to the technical training area.

**Figure 3.6: Distribution of the Satisfaction of the Training**

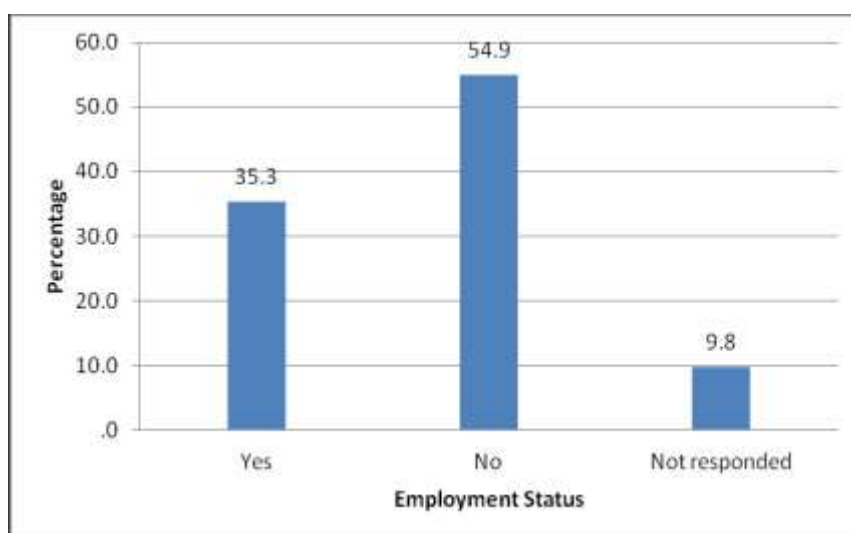


Considering the satisfaction of training received about 53.2 percent of trained females highly satisfy on training they received. And 44.7 percent satisfy on training. Therefore, in general it can be concluded that more than 90 percent satisfy on technical training they received.

**Table 3.6: Distribution of Employment Status**

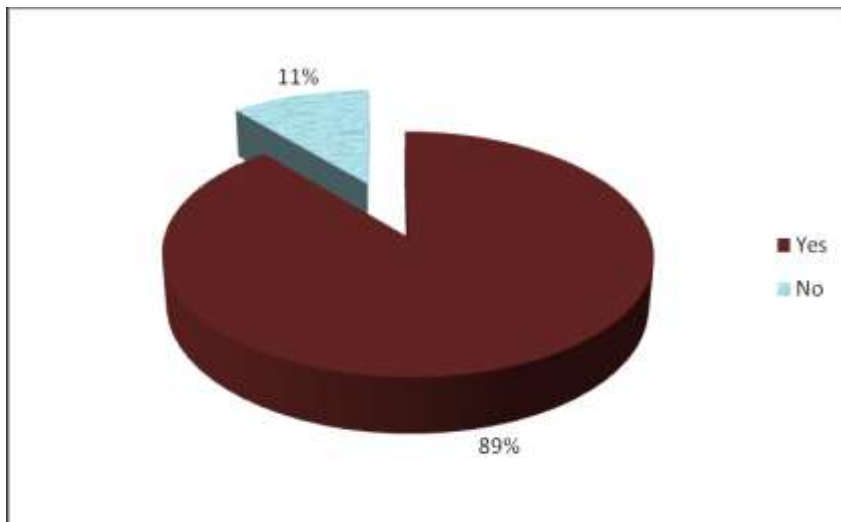
Employment Status	Percentage
Yes	35.3
No	54.9
Not responded	9.8
Total	100.0

**Figure 3.7: Percentage Distribution of Employment Status**



According to the table it has been seen that 54.9 percent of trained females are not doing any Job. Only 35.3 percent have jobs.

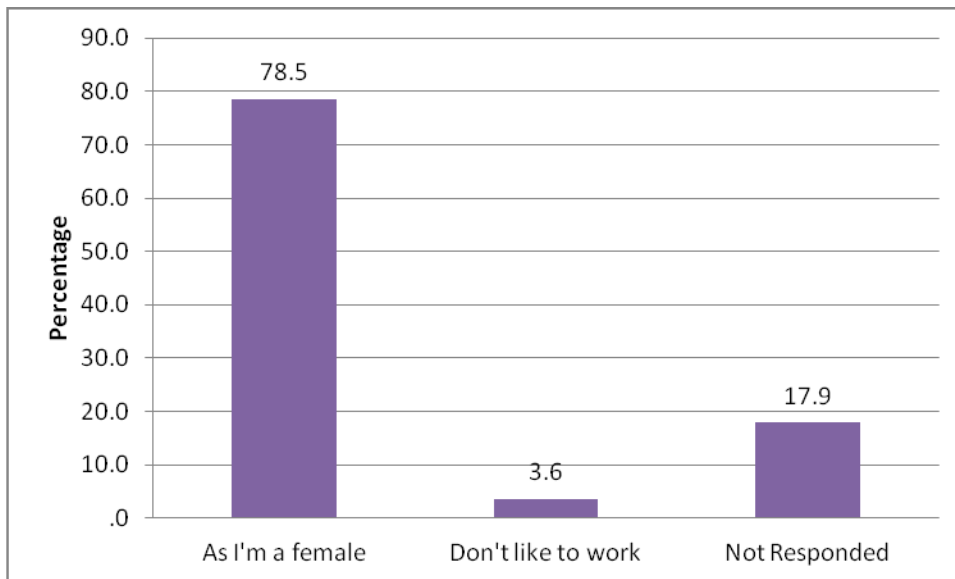
**Figure 3.8: Relationship to the Current Job**



In order to identify the relationship between training area and the job the trained females were asked whether their jobs are related to training . As shown in the pie chart out of trained females who have training 89 percent stated that their job is related to the training they received.



**Figure 3.9: Reasons for Not doing a Job**



According to the above table out of 54.9 percent, females who do not have any jobs 78.5 percent stated that they did not received employment opportunity, as they were females. 17.9 percent trained females do not respond to the question. As this majority, more than 75 percent trained females have given reason the reason of not getting a job as they are females it has been seen that there is a social barrier for getting technical jobs.

## 4: Conclusion and Recommendations

### 4.1: Conclusion

Young Females are considered as a vulnerable group and unemployment among female is lower than that of males as their participation in economic activities remains largely contributing family worker category based and not monetarily compensated. It is believed that one reason for lower rate of employment of female is that they are not employed in technical occupations or they are not seeking employment in technical occupations. The importance of vocational training institutes for young women cannot be overestimated.

Based on analysis and presentation following conclusions were drawn on female participation in vocational training in technical occupations.

One of the objectives of the research was to find out difficulties encountered by females to follow technical training during the courses. Therefore, student's views on the training they received were analyzed. As 92 percent of trained females state that no any difficulty at the training place during the training period it can be concluded that there is a positive environment for females to take technical courses at training places.

There is a tendency of taking technical courses among the young females. Out of all respondent 65 percent of trained females are age of 19-25 years. Considering the father's occupation of the trained females, it has been shown that majority of fathers involving Skilled agricultural and fishery worker jobs. Since in general man, the father is the main breadwinner of the family his job

can be considered as a reflection of the economic status of the household. Skilled agricultural and fishery worker category jobholders are considered low-income generated persons. Therefore, living condition of these trained females can be considered as low-income family level. The mean of the monthly gross income of the family is Rs. 13,020.

It can be concluded that majority of females are willing to take construction trade training than mechanical or electrical trade training courses. It has been seen that 66 percent of trained females selected the course by themselves.

In order to identify the trained female perception on opportunity for technical training programme the question "What is your idea on entering females to technical training courses?" was asked. According to the analysis, it has been seen that female satisfaction at the training place and the training environment is very high. At the same time 65 percent of females stated that they believe training providers give equal opportunity for entering females to the technical training area. Considering the above being a woman is not a restricted factor to follow a technical course at a public vocational training centre.

According to the analysis it has been seen that 54.9 percent of trained females are not doing any Job. Only 35.3 percent involving in jobs. In order to identify the relationship between training area and the job the trained females were asked whether their job is related to the training received. As 89 percent stated that their job is related to the training received it can be concluded persons who received a job has a higher chance of getting a job related to their training. But it is clear that majority, almost 55 percent are unable to find jobs.

Therefore woman has the lower chance of getting an employment in technical related occupations. This conclusion is further proved by the results of views of unemployed females. According females who do not have any jobs 78.5 percent stated that they did not received employment opportunity, as they were females. As this majority, more than 75 percent trained females have given reason the reason of not getting a job as they are females it has been seen that there is a social barrier for getting technical jobs. When considered the telephone conversation with some passed out females this was further proven. Even some females quitted from jobs after getting married.

#### 4.2: Recommendations

In order to enhance female participation in vocational training in Technical Occupation following recommendations were given.

As this is a social barrier Government should provide inducements and intensives in recruiting females to technical occupations.

As the public sector training places have favorable environments for females, conducting special awareness programmes would be more useful to increase females participation.

Further study is recommended in order to explore job opportunities in technical peripheral areas such as

Spare part sale for Automobile sector

Employment in construction firms.

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