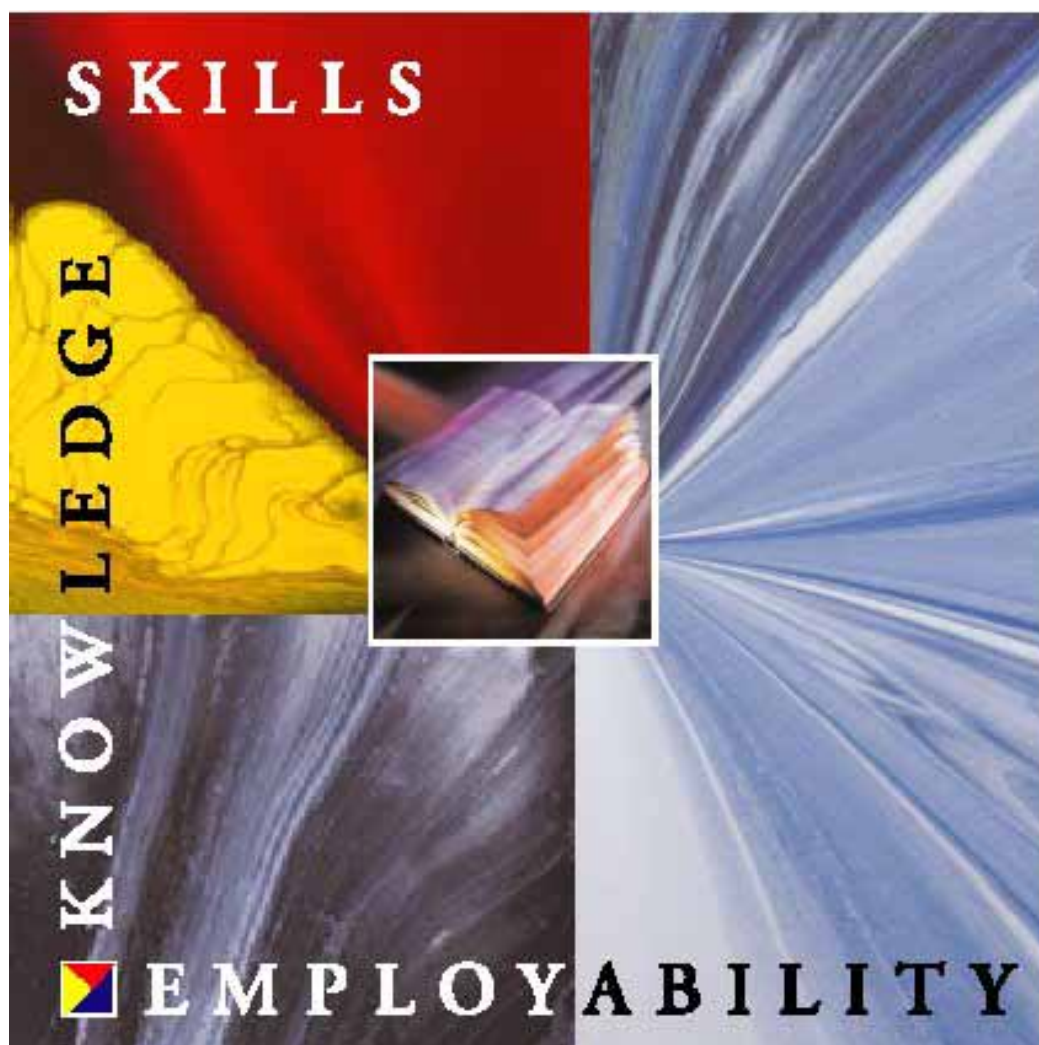


*Statistics on Investment in Training:  
an assessment of data available and cross-country  
comparability*

by

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## Table of contents

<b>1.</b>	<b>Introduction</b> .....	4
<b>2.</b>	<b>The sample</b> .....	5
<b>3.</b>	<b>The data</b> .....	7
	3.1 Data collected .....	7
	3.2 Data received .....	9
	3.2.1 Data from the Asia and Pacific region .....	9
	3.2.2 Data from Africa and the Middle East .....	14
	3.2.3 Data from Latin America and the Caribbean .....	17
	3.2.4 Major features of the data received .....	23
<b>4.</b>	<b>Cross-country comparability of statistics</b> .....	30
	4.1 Data on participation in training activities .....	30
	4.2 Data on expenditures in training activities .....	34
<b>5.</b>	<b>Main conclusions</b> .....	36
<b>6.</b>	<b>Way forward: some recommendations</b> .....	39
	<b>Bibliography</b> .....	42

## **List of abbreviations**

BCC	Barbados Community College
BVTB	Barbados Vocational Training Board
CITA	Construction Industry Training Authority
CMHS	Continuous Multipurpose Household Survey
CODEFAT	Deliberative Council for the Workers' Protection Fund
CSD	Census and Statistics Department
DOL	Department of Labour
EAB	Economic Active Population
EBT	Establishment-Based Training
ENGHI	National Survey on Income and Expenditure
FAT	Workers' Protection Fund
FONCAP	National Fund of Skills Development
GDP	Gross Domestic Product
HKIVE	Hong Kong Institute of Vocational Education
HRD	Human Resource Development
HS	Household survey
ILO	International Labour Office
INA	National Institute of Apprenticeship
INEC	National Statistical Office of Costa Rica
INTECAP	Institute of Technical Training and Productivity
INFOTEP	National Institute for Labour Training
ITE	Institute of Technical Education
ITI	Industrial Training Institute
IVTB	Industrial and Vocational Training Board
LAC	Latin America and the Caribbean
LF	Labour force
LFS	Labour force survey
LFSST	Labour force survey supplement on training
LM	Labour market
MHR	Ministry of Human Resources
MOE	Ministry of Education
MOL	Ministry of Labour
MOM	Ministry of Manpower
MTE	Ministry of Labour and Employment
MTEySS	Ministry of Labour, Employment and Social Security
MTI	Ministry of Trade and Industry
NGO	Non-governmental organization
NMC	National Manpower Council
NSO	National Statistical Office
NTA	National Training Agency
NVTA/B/C	National Vocational Training Agency/Authority/Board or Council

NVTI	National Vocational Training Institution
OFT	Off-the-job training
OJT	On-the-job training
PLANFOR	National Plan of Workers' Training
PSB	Productivity and Standards Board
SEFOR	National Secretariat of Training and Skill Development
SENA	National Training Service
SENATI	Industrial and Technical Training Service
SENCE	National Service of Training and Employment
SETA	Sector Education and Training Authority
SSOyFP	Secretariat for Employment and Occupational Training
TC	Training Centre
TESDA	Technical Education and Skills Development Authority
TVET	Technical Vocational Education and Training
TVETC	Technical and Vocational Education Training Council
VET	Vocational Education and Training
VT	Vocational training
VTC	Vocational Training Council
VTI	Vocational Training Institution

# STATISTICS ON INVESTMENT IN TRAINING: AN ASSESSMENT OF DATA AVAILABLE AND CROSS-COUNTRY COMPARABILITY

## 1. Introduction

This study is a follow-up on the first International Labour Office (ILO) Inquiry on Statistics on Investment in Training carried out in March 2002, in which 26 out of the 32 less developed countries surveyed indicated that they had training-related statistics and could provide the ILO with these statistics (Galhardi, 2002a). The follow-up study is meant to provide some concrete inputs towards the development of a preliminary **Database on Investment in Training**. Measures and indicators of investment in human resource development (HRD) and, in particular, skills development, are becoming increasingly important, reflecting economic and social conditions in society as a whole and being therefore essential in policy decision-making at the national level. Skills development by vocational education and training (VET) is a crucial part of lifelong learning and reflects the role of governments and social partners in dealing with labour market (LM) and employment problems. Information on skills development through continuous VET is indispensable also to assess both competitiveness of enterprises and employability of the workforce through training. Understanding the extent, efficiency and limits of training offered by public and private providers is a prerequisite for focusing supplementary funding and training actions. Comparable statistical data on VET is a key tool to analyse among other things the discrepancies between skills supply and demand, between training needs and the forms, fields and volume of training offered, between the levels of national resources and how total training costs are shared among governments, enterprises and individuals. As concluded during the International Labour Conference 2000 by the Committee on Human Resources Development and Training, “*the ILO should develop a database on current expenditures on vocational and continuing training ... as a mirror and point of orientation for countries, sectors, and companies*” (ILO 2000, para. 12). Comparability is, therefore, an important consideration in this study as it is for the development of the database and wider usefulness of the data in question.

Specifically, this study sought to achieve the following objectives:

- (i) request examples of statistics on participation and expenditures on training from those countries which indicated during the first statistical inquiry that they had the statistics in question and were able to provide these to the ILO;
- (ii) analyse the statistics collected, their characteristics, sources, coverage, frequency, etc;
- (iii) prepare comparative cross-country analysis of the quantitative information supplied by the selected countries where possible;
- (iv) highlight the strengths and limitations of data; and,
- (v) elaborate a preliminary proposal for the design of an approach for data collection with a view to harmonize and systematize the collection procedure at the national and international levels respectively.

Section 2 explains the sample and the data available. It describes the sources of information in each country and the existing means of access to the data. The third Section explains the data collected through internet and the data received from the countries

contacted. It analyses the scope and coverage of the data from different providers and sources by country according to the geographical distribution of the sample, i.e. countries from the Asia and Pacific region, Africa and the Middle East and Latin America and the Caribbean (LAC). This analysis of data by region would facilitate identifying patterns and common features if they exist, at least at the regional level. These patterns are highlighted in section 3.2.4. Section 4 analyses the data received on participation, then expenditures in training in terms of international comparability. It examines the sources of statistics in each case and highlights their limitations for constructing comparable indicators at the national and international levels. In Section 5, we synthesise the findings of the study and enumerate the lack of data and the inadequacies of those which exist, as well as the main problems relating to the collection of statistics on investment in training. Section 6 makes some recommendations on the way forward and future data collection based on the information and statistics received from the countries that participated in this preliminary data collection exercise.

## 2. The sample

The 26 countries that responded positively to the first inquiry on statistics on investment in training (Galhardi, 2002a) are 6 from the Asia and Pacific region, 3 from the Middle-East, 11 from LAC and 6 from Africa. All have indicated that they could provide statistics on both expenditures and participation in training activities with the exceptions of Trinidad & Tobago, Egypt and Cameroon. These could provide information either on participation or expenditures in training as indicated in Table 1.

The information was provided either by the **National Statistical Offices (NSOs)** or by **other national institutions**, such as the National Vocational Training Agency/Authority/Board or Council (**NVTA/B/C**) in the Philippines, Mauritius, Barbados and Jamaica. In countries such as Brazil, Argentina, Chile, Peru and the Republic of Korea, it is the Ministry of Labour (MOL) that can provide the data. Apart from the statistics generated by Statistics South Africa, the Department of Labour South Africa collects training statistics through the Sector Education and Training Authorities (SETAs). The Manpower Research and Statistics Department of the Ministry of Manpower (MOM) in Singapore is the department responsible for the collection and dissemination of all manpower-related statistics. The Ministries of Human Resources (MHR) in Malaysia supplied statistics on training activities from the vocational training institutions under their supervision. Only in Turkey did the data supplied by the NSO come from the Ministry of Education (MOE). In most cases, more than one provider was necessary to supplement the information gathered by the NSO, as in the cases of Jamaica, Mauritius and South Africa. In general, the NSOs do not generate the data but, when supplied by them, it was the result of their cooperation in assembling the data from other sources such as the National Vocational Training Institutions (NVTIs) and/or related ministries. Unless indicated in the table, the sources of information provided statistics on both expenditure and participation in *training* activities.

**Table 1: Availability of data by country**

Country	Provider (*)		Means of access			Future plan
	NSO	Other national institutions	Hard copy	Electronic	Internet	Yes
1. Hong Kong/China	✓		✓	✓	✓	✓
2. Korea		✓	✓	✓		✓
3. Malaysia		✓	✓	✓		✓
4. Philippines		✓	✓	✓	✓	✓
5. Singapore		✓	✓	✓	✓	✓
6. Viet Nam	✓		✓			✓
7. Argentina		✓	✓	✓	✓	✓
8. Brazil		✓	✓	✓		✓
9. Chile		✓	✓		✓	✓
10. Colombia		✓	✓	✓		✓
11. Costa Rica	✓		✓		✓	NO
12. Guatemala	✓		✓	✓		NO
13. Peru		✓	✓	✓		✓
14. Barbados		✓	✓			NO
15. Dominican R.	✓		✓	✓	✓	✓
16. Jamaica	✓	✓	✓	✓		✓
17. T & Tobago		✓ (part)			✓	✓
18. Jordan	✓		✓	✓		NO
19. Syria	✓					n.a
20. Turkey	✓					✓
21. Cameroon		✓ (exp)				✓
22. Egypt	✓ (part)		✓			✓
23. Mauritius	✓	✓	✓	✓		✓
24. South Africa	✓ (part)	✓	✓	✓		✓
25. Tunisia	✓		✓	✓		✓
26. Zambia	✓					✓

In terms of the **means of access** to the data, only 22 countries informed their availability. The Republic of Syria and Turkey, despite having indicated the availability of data, did not indicate how it could be accessed. The same striking observation is applied to Cameroon and Zambia. All other countries (21), with the exception of Trinidad & Tobago, indicated that data could be obtained in hard (paper) copy. It was indicated by 16 countries that data could also be obtained in electronic format. Only 8 countries in the sample informed that they could supply statistics through their website.

It should be noted that most countries intend to continue collecting and producing statistics on expenditures and/or enrolment of training in the next year. Only four countries, i.e., Costa Rica, Guatemala, Barbados and Cameroon, responded negatively, and the Arab Republic of Syria has not replied to this question. The negative answer of the NSO of Costa Rica and Guatemala can be explained by the fact that, in these countries, vocational training policy and programmes are defined, implemented and monitored by the NVTIs. The national institutions may, therefore, be responsible for the production of the related statistics. This was clear in the case of Costa Rica in which the website provided by the NSO was that of the NVTI, i.e. the National Institute of Apprenticeship (INA).

In the process of carrying out this study it was observed that some countries that had responded to the questionnaire administered during the first inquiry were under the

impression that the ILO wanted to work with them to collect the statistics or to improve the collection of the statistics in question. This was the case especially with Zambia, Barbados, Egypt, Viet Nam, Jordan, and Syria. The “yes” responses to some questions in the questionnaire actually indicated the possibility of collecting the information, **with assistance**, not necessarily that the statistics were readily available. It transpired that for some countries, the required statistics have never before been collected in a systematic manner, and that there was no centralized collection of the statistics in question. Also there were no immediate plans or resources in place to assemble these statistics. When some of these countries realized that no additional resources were forthcoming on the part of the ILO, they became less cooperative. Jordan could only refer us to their website ([www.dos.gov.jo](http://www.dos.gov.jo)), which contains no training-related statistics. However, Zambia, Viet Nam, Syria and Barbados indicated that they would need more time to assemble statistics from the different institutions collecting them. Egypt was contacted early during the follow-up study, and indicated that they were working on the request. Subsequent attempts to contact the Central Agency for Public Mobilisation and Statistics, our contact agency, proved fruitless. Viet Nam suggested involving the ILO office in this exercise signifying lack of resources to assemble the data from other sources. These drawbacks can be illustrated by the General Statistical Office of Viet Nam’s reply:

*“I (we) cannot provide you all data you need because they are not available. We need to collect (the data) from other sources. ... You may ask ILO Vietnam to help you. In the case they cannot do that they can meet us to discuss the contract to collect the needed data”* (personal communication, 29/05/2003).

### **3. The data**

#### **3.1 Data collected**

With the sample of countries defined, we began searching the websites of those institutions that provided addresses. This means of access, however, was disappointing in terms of the statistics available on job-related training activities. In most of the cases, the websites have general institutional information. Statistics, when available, are on broad characteristics of the LM.

From the 8 countries that provided internet addresses, it was only from the Philippines, Singapore and Chile that useful statistics were obtained. The website of the Technical Education and Skills Development Authority (TESDA) of the Philippines provides data on participation and expenditures in training activities for the last three years, disaggregated by sex, training programmes and provider (school- and non-school-based, private and public). In Singapore, the website of the MOM provides general information on the LM situation and participation in vocational or professional skills training courses. Data on expenditures and participation in training is offered by two surveys, i.e. the survey on enterprises-based training conducted in 2001 and the 2000 adult training survey respectively, and the information is restricted to these years. Chile has comprehensive statistics available on the website of the National Service of Training and Employment (SENCE) of the Ministry of Labour and Social Protection. Statistics on expenditures and participation in training activities by sex, occupation, industrial sector, source of funds and type of training programme are available from 1994 until 1998.

**Table 2: Statistics from the website**

Country	Website	Information available	
		Participation	Expenditure
Philippines	<a href="http://www.tesda.gov.ph">www.tesda.gov.ph</a>	<ul style="list-style-type: none"> <li>• TESDA enrolment &amp; graduates by type of programme (1999-2000)</li> <li>• Enrolment by sex (on school-based TVET programme) 2000-01</li> </ul>	<ul style="list-style-type: none"> <li>• TESDA budgetary allocation by expense class (2000,01,02)</li> <li>• Education &amp; training budget by agency (2000,01,02)</li> </ul>
Hong Kong/China	<a href="http://www.emb.gov.hk/emb/eng/">www.emb.gov.hk/emb/eng/</a> <a href="http://www.info.gov.hk/censtatd">www.info.gov.hk/censtatd</a>	No statistics on VET available	
Singapore	<a href="http://www.mom.gov.sg">www.mom.gov.sg</a>	<ul style="list-style-type: none"> <li>• “<i>National Survey on Adult Training, 2000</i>” (info: by age, educational attainment, firm size, industry, occupation, &amp; income)</li> <li>• “<i>2002 Singapore Yearbook of Manpower Statistics</i>” (persons who completed training)</li> </ul>	<ul style="list-style-type: none"> <li>• “<i>Establishment-based Training survey</i>”, addendum to the regular 1st quarter Labour Market Survey 2001</li> <li>• SDF value of assistance (and training places) committed by type of training, 1991-2000</li> </ul>
Argentina	<a href="http://www.trabajo.gov.ar/left/estadisticas/index.htm#">www.trabajo.gov.ar/left/estadisticas/index.htm#</a>	Statistics on LM’s traditional indicators	
Chile	<a href="http://www.sence.cl">www.sence.cl</a>	<ul style="list-style-type: none"> <li>• 1994 – 1998: by economic sector, occupation, sex, training area, source of funds</li> </ul>	<ul style="list-style-type: none"> <li>• 1994 – 1998: public, private, type of programmes</li> </ul>
Costa Rica	<a href="http://www.ina.ac.cr">www.ina.ac.cr</a>	No data on training participation/expenditures	
Trinidad & Tobago	<a href="http://www.labour.gov.tt">www.labour.gov.tt</a>	Some data on training providers and the LF by schooling and gender	
Dominican Republic	<a href="http://one.gov.do">http://one.gov.do</a>	No data available on training (only on general education)	
Brazil	<a href="http://www.mte.gov.br">www.mte.gov.br</a>	<ul style="list-style-type: none"> <li>• 2000-02: by sex, age, economic activity, vulnerable groups, type of skills, providers of training</li> </ul>	<ul style="list-style-type: none"> <li>• 2000-02: by participants, source of funds, economic activity, vulnerable groups, providers of training</li> </ul>
Mauritius	<a href="http://ncb.intnet.mu/ivtb">http://ncb.intnet.mu/ivtb</a>	<ul style="list-style-type: none"> <li>• 2000: by gender, type of course, educational attainment and occupation</li> </ul>	<ul style="list-style-type: none"> <li>• General info. on the training grant and voucher systems</li> </ul>
South Africa	<a href="http://www.statssa.gov.za">www.statssa.gov.za</a>	<ul style="list-style-type: none"> <li>• 2000-02 by employment status, and gender, duration of training, population group, industry, occupation, field of training</li> </ul>	<ul style="list-style-type: none"> <li>• not available</li> </ul>

In the case of Hong Kong Special Administrative Region of the People’s Republic of China (Hong Kong/China), the information available on the website of the Education and Manpower Bureau concerns policies, programmes and legislation in respect of manpower planning, training and retraining. Related statistics are not available even on the Census and Statistics Department (CSD) website. In Argentina, the website of the Ministry of Labour,

Employment and Social Security (MTEySS) displays very general information related to the National Survey on LM indicators. Any information on VET seems to be collected. The website of the INA of Costa Rica - provided by the National Statistical Office of Costa Rica (INEC) - does not present any statistics. The website of the Ministry of Labour and Small and Medium Enterprise Development of Trinidad & Tobago displays general LM indicators. On training issues, the only information available is the list of education and training institutions by area of study. The NSO of the Dominican Republic does not collect information on training activities. ONE's website presents data only on participation in general education.

Other countries/institutions that have not informed the availability of data through internet, such as Brazil, Mauritius and South Africa, actually have interesting data on their respective websites. The Brazilian case is paramount. The website of the Ministry of Labour and Employment (MTE) has the most comprehensive information on participation and expenditures on training activities, available on the internet. This information can be obtained disaggregated by providers of training, sex of participants, disadvantaged groups (women, unemployed, youth, etc.), economic activity, and source of funds for the period 2000-02 only. There are other accessible breakdowns that are not concerned with the focus of our study. The website of the Industrial and Vocational Training Board (IVTB), the agency responsible for technical and VET in Mauritius, presents some data on participation in training activities generated by a survey on private training institutions conducted in 2000. Information on expenditures is about the training grant and voucher systems and very general. Statistics South Africa has been collecting data on training through several rounds of the Labour Force Survey (LFS) since 2000.

It is clear that accessible information on expenditures and participation in training activities through the internet can only be obtained in very few countries. In our sample, only Brazil, Chile and the Philippines show some systematization in the collection of such statistics and can offer data on both expenditure and participation in training for at least three consecutive years. This evidence indicates that data has to be gathered in direct contact with the sources of information in the countries concerned and through hard copy.

## **3.2 Data received**

After a series of telephone follow-ups and reminder faxes to increase the response rate, we managed to receive statistics from 18 countries: 5 from Asia and the Pacific; 10 from LAC, 1 from the Middle-East and 2 from Africa. Except for Hong Kong/China, Singapore and Mauritius, which carry out surveys of private training establishments, the data received largely represents training offered by public authorities.

### **3.2.1 Data from the Asia and Pacific region**

We received data from the Philippines, Hong Kong/China, the Republic of Korea, Singapore and Malaysia. Viet Nam was the only country that failed to provide data by the time of compiling this report. The General Statistical Office informed that they could not send information because their office is under the Ministry of Labour, Invalids and Social Affairs which is responsible for authorizing the compilation and dissemination of data. A formal request was sent to them end of March but with no response. Table 3 summarizes the data received by country, the description and analysis of which follows below.

**Table 3: Synthesis of the data received from the Asian and Pacific countries surveyed**

Country	Expenditure		Participation	
	Data available (years)	Total & Breakdown	Data available (years)	Total & breakdown
<b>Philippines</b>	1991-2002 2002 2002 1997-2001/02	Job-related training Middle-level training • By providers: VT and technical schools/inst., TCs • By core business: direction setting, quality assurance, support training providers, inst. capacity building, general adm. support • By source of funds: locally funded, foreign-assisted project	1991-2001 2001 1999-01 2000-01	Number of persons trained • By gender • By type of providers ○ school-based; centre-based, enterprise-based, community-based, private or public ○ By gender
<b>Hong Kong</b>	2000/01 2001/02 2002/03 1996/97 1997/98 1998/99 1999/00 2000/01 1992-2001 2000-01 2000-01	Adult education scheme • By source of funds: public (government subvention) and private (fees paid by participants) • By number of participants • By type of training programme  Vocational Training Council (VTC) • By type of expenditure: e.g. K and recurrent  Sector Training Authorities: (i) Construction • By source of funds (levies, fees, etc.)  (ii) Clothing • By occupation • By type of training provided (initial, continuous, EBT (OFT & OJT) • By source of funds (gov, private/enterprises, individuals/fees)  Specific target groups (i) Employees Retraining Board (targeted to unemployed,	2000/01 2001/02 2002/03 2001 1997/98 1998/99 1999/00 2000/01 2001/02 1992-2001 2002 1999-00 2000-01	Number of participants in adult education scheme • By type of training programme  Number of students by type of training provider: gov-related org, commercial associations, NGOs, voluntary org, private schools/institutes, etc.  Number of trainees • By type of training provider • By type and level of courses • By gender • By age  Number of participants • By gender • By age • By type of course  Number of trainees • By sex • By age  Number of (re)trainees • By age

	2000/01 2001/02  2002	disabled, elderly, self-employed) <ul style="list-style-type: none"> <li>By industry of trainees' main job</li> <li>By occupation</li> <li>Type of training provided</li> </ul> (ii) Youth pre-employment  (iii) Skills Upgrading Scheme (targeted to in-service workers with secondary or lower education) <ul style="list-style-type: none"> <li>By industry of trainees' main job (estimated)</li> </ul>	(+2001-02)  2000/01 2001/02  2002  2000/01	<ul style="list-style-type: none"> <li>By sex</li> <li>By industry of trainees' main job</li> <li>By educational level</li> <li>By occupation</li> <li>By target group</li> </ul> Number of participants <ul style="list-style-type: none"> <li>By sex</li> </ul> Number of training places <ul style="list-style-type: none"> <li>By industry of trainee's main job (estimated)</li> </ul> Stock-taking Survey on continuing education Number of participants <ul style="list-style-type: none"> <li>By type of course provided</li> </ul> Thematic Household Survey Number of participants <ul style="list-style-type: none"> <li>By major industry sector</li> <li>By employment status</li> </ul>
<b>Korea</b>	1999-2001	Expenditure by source of funds <ul style="list-style-type: none"> <li>By type of training (institutional or EBT) and target groups</li> </ul>	1999-2001	Number of persons trained by type of training and target groups: employed, employee on paid leave, unemployed women and disabled  Number of participants in the Vocational Ability Dev. Prog.
<b>Singapore</b>	2000  1991-2000	Employer Training Survey Average expenditure (by employer) per employee <ul style="list-style-type: none"> <li>By industry</li> </ul> SDF value of assistance <ul style="list-style-type: none"> <li>By type of training</li> </ul>	2000	Adult NSO Training Survey Rate of participation <ul style="list-style-type: none"> <li>By educational attainment</li> <li>By age group</li> <li>By occupation</li> <li>By industry</li> </ul>
<b>Malaysia</b>	1995-2001	<ul style="list-style-type: none"> <li>Development budget</li> <li>Management budget</li> </ul>	1998-2002  2001	Enrolment in 14 industrial training institutes (ITI) <ul style="list-style-type: none"> <li>By training courses</li> <li>By age group</li> <li>Occupational standard</li> <li>By gender</li> </ul>

In the case of the Philippines, data on expenditures and participation in training activities was provided by TESDA.<sup>1</sup> This government agency is responsible for technical education and skills training in support of the development of high quality Filipino middle-level manpower of the country. It was established in August 1994. The data provided on

<sup>1</sup> TESDA was created by the merging of the National Manpower and Youth Council (NMYC), the Bureau of Technical and Vocational Education of the Department of Education, Culture and Sports and the Apprenticeship Programme of the Bureau of Local Employment of the Department of Labour and Employment. Previous to TESDA, the NMYC was responsible for providing the skills training needed by workers, unemployed adults and out-of-school youth.

expenditures in Technical Vocational Education and Training (TVET) from 1991 to 1998 comes from a recent study on the National Education Expenditure Accounts undertaken by the National Statistical Coordination Board.<sup>2</sup> The data is broken down into two major categories of use of funds (middle-level skills development<sup>3</sup> and job-related training programmes).<sup>4</sup> From 1999 to 2002, expenditures are related only to TESDA activities (and available on the website). The number of persons trained by type of training providers, i.e. public and private, is also available for 1991-2001, and disaggregated by sex only in 2001.

The data provided by the CSD of the Government of Hong Kong/China came from two sources: (i) the “*Stocktaking Survey on Continuing Education*”, and (ii) the “*Thematic Household Survey*”. The former is a survey targeted at all common providers of continuing education programmes.<sup>5</sup> The latter is a household survey, covering all the land-based non-institutional population of Hong Kong (except hotel transients and inmates of institutions) aged 15 or over, conducted in the second quarter of the year 2000 on an ad-hoc basis.<sup>6</sup> All the economically active persons, comprising the employed and the unemployed populations, within a randomly selected household were asked whether they had attended (re)training courses arranged by employers and/or on own initiative during the last 12 months before enumeration.

**Supplementary data** on participation and, particularly, on expenditures on training, were collected by CSD from other sources. For instance, the Construction Industry Training Authority (CITA) provided data on participation and expenditure in off-the-job training (OFT) opportunities for people wishing to become construction craftsmen, technicians and operatives for the period 1992-2001, disaggregated by sex and age group of participants. Similarly, the Clothing Industry Training Authority provided detailed information on expenditures broken down by occupation, type of training provided and sources of funds for the years 2000 and 2001. Participation by sex and type of course is available for the year 2002. Another source is the Adult Education Subvention Scheme, the purpose of which is to assist non-governmental organizations (NGOs) to run basic adult education programmes to complement and supplement the provision of adult education by the Government. Grant available and enrolment by type of courses is available for the years 2000/01, 2001/02 and 2002/03. Data on expenditures in training incurred by the VTC, which provides pre-employment and in-service education and training through the Hong Kong Institute of Vocational Education (HKIVE), VTC School of Business and Information Systems and its training centres (TCs), is also available for each provider of training from 1996/97 to 2000/01. The number of participants by gender and type of course (e.g. pre-employment, upgrading and practical training) was provided for the period 1998/99 – 2001/02. In the case of the HKIVE, a breakdown of the number of participants by level of course (higher technician, technician, and craft), gender and age is available from 1997/98 to 2001/02. Information on expenditures and participation in training targeted to **unemployed persons aged 30 or above**

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<sup>2</sup> Total expenses on training and seminars conducted by the national government agencies was obtained by subtracting expenses for their own staff development from the total training and seminar expenses as reported in the Annual Financial Report of the National Government.

<sup>3</sup> Middle-level skills development includes post-secondary education that leads to awards not equivalent to a baccalaureate degree and other technical/vocational training not requiring a high school diploma.

<sup>4</sup> Job-related training programmes refer primarily to staff and employee training programmes designed to upgrade work-related skills and knowledge.

<sup>5</sup> These are defined as structured programmes/courses conducted outside the formal education system to provide opportunities for pursuing remedial learning, to provide second chances for obtaining qualifications, for updating or acquiring new knowledge and skills, and/or for fulfilling personal development needs.

<sup>6</sup> The HS was conducted again in Q3 2002 and the results were not available at the time of compiling this report.

**with no more than lower secondary education** was collected at the Employees Retraining Board created in 1992. The Board also offers (part-time only) courses on basic vocational skills for those in employment. Previously funded by levies from employers importing labour and government block grants, it has been receiving annual recurrent funding from government since April 2001. In addition to the ordinary retraining programmes, it offers specific training for persons with disabilities, the elderly (persons aged 45 or above), new arrivals to Hong Kong. Special tailor-made courses for the specific needs of some employers or trade associations and self-employment are also delivered. Expenditures breakdown by the industry of trainees' main job, occupation, type of provider and target group is available for the periods: 2000/01 and 2001/02. Statistics on participation were also supplied by the same breakdowns and, in addition, by age group of trainees, for 1999-2002.

The Manpower Research & Statistics Department of the MOM of Singapore provided some information on participation in training collected from the "2000 National Adult Training Survey" and a short Labour Force Survey Supplement on Training (LFSST) conducted in 2001. Data on participation in training, disaggregated by age group, occupation, industry, sex were provided for these two years. Prior to that, Singapore has no systematic data on participation in training activities.<sup>7</sup> Data on expenditure from the *Establishment-based Training Survey* which covers private establishments with at least 25 employees<sup>8</sup> was collected. Through this survey, average expenditure (by employers) per employee<sup>9</sup> was collected and broken down by industrial sector for the first time in 2000. Data on participation is broken down as follows:

- (i) **training incidence** by industry, occupation, firm size, type of employer, marital status, educational attainment, age, employment status, and income;
- (ii) **training intensity** by status in the labour force (LF), educational attainment, marital status, type of employment, industry and occupation;
- (iii) **participation in accredited training courses**: duration of training by LF status, age, educational attainment and marital status;
- (iv) **support for training**: employer support by type of support, sources of finance for training, proportion of establishments that sent employees for training by industry and size, proportion of firms with a formal written training policy by firm size;
- (v) **mode of training**: proportion of employed trainees by site of training;
- (vi) **relevance of training**: proportion of trainees who deemed training to be sufficient, training most needed proportion of employed trainees by reasons for training;
- (vii) **overall participation in training**: proportion of trainees who upgraded their qualifications by level of education.

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<sup>7</sup> The adult training survey will be repeated every 5 years, i.e. in 2005 and 2010.

<sup>8</sup> The survey will be repeated every 2 years.

<sup>9</sup> Net training cost refers to the net amount incurred after deducting cost recovered from the Skill Development Fund. It includes course fees, rental of premises/facilities for training purposes and other monetary allowances given to trainees as well as cost of training material incurred in providing structured OJT.

Another source of funds for employers' training activities is the Skill Development Fund (SDF)<sup>10</sup> to which employers contribute 1% of monthly wages of employees earning \$1,500 and below. The pooled amount is then used by the SDF Secretariat to assist employers in funding their employees training.<sup>11</sup> The value of this assistance and training places committed by type of training<sup>12</sup> was provided for the period 1991-2000. Figures exclude other schemes such as BEST (Basic Education for Skill Training), WISE (Worker Improvement through Secondary Education) and VTS (Vocational Training Scheme).

Information on participation and expenditures on training was provided by the MOL of the Republic of Korea for the period 1999-2001. The number of people participating in the Vocational Ability Development Program by training public and private institutes,<sup>13</sup> and type of training<sup>14</sup> was received for this period. The participation rate in specific training programmes for the unemployed<sup>15</sup> was also provided for the same period. Expenditures and participation in training by different sources of funds e.g. the Employment Insurance Fund, the Employment Promotion Fund for the Disabled were provided for the same years. Training for specific groups such as the unemployed female household heads was funded by the general budget.

The data on participation and expenditures in training received from Malaysia is mainly from Vocational Training Institutions (VTIs) run by the MHR<sup>16</sup> only. These are referred to as ITIs. Statistics on participation by type of course (e.g. certificate and diploma), occupational level and age group are available for the period 1998-2002. This information corresponds to enrolment in 14 ITIs. Trainee's enrolment by sex is available for 19 ITIs for the year 2001. Public expenditures on training activities were provided annually for the period 1995-2001. Expenditure data is disaggregated into two broad categories, i.e. development budget and management budget. Development budget mainly refers to expenditure on institutional development, i.e. capital expenditure, and the Management Budget refers to operational or recurrent expenditure on VET.

### **3.2.2 Data from Africa and the Middle East**

As already mentioned, Egypt, Zambia and Syria, though they had indicated they could provide the data, informed that more time was needed to assemble the data from different sources. At the time of compiling this report, they had not provided the data.

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<sup>10</sup> The SDF system represents the Government's efforts to encourage all firms to invest in skills development.

<sup>11</sup> Employers can recoup 80% of their contribution by requesting training grants for skills development. The training grants are structured so that firms providing training in skills that are in demand, or have training plans that cover over 50% of the workforce, are provided higher sums, while companies that continue to use low-skilled workers in low-cost operations are penalized.

<sup>12</sup> For instance: productivity and quality-related skills, computer-related skills, technical production and engineering skills, management and supervisory skills, trade and craft skills.

<sup>13</sup> Public: KMA, Polytechnic College, Korea Chamber of Commerce and Industry, others, and Civil Training Body, Working Women Centre, training institutions designated by the MOL, training institutions other than designated facilities.

<sup>14</sup> Vocational Development Programmes for Employees, Training and employees on paid leave, Reemployment training for the unemployed, Scholarship Loan for Workers' Children, and Bounty for taking training course.

<sup>15</sup> Training to start a business, Training to promote employment, Training to promote occupations, Employment training, Training priority for certain types of employment, Training to produce skilled workers, Training for employees on paid leave.

<sup>16</sup> This data does not include training activities carried out by other Ministries involved with VET activities in the country, e.g. MOE, Ministry of Culture, Youth and Sport and Ministry of Rural and Entrepreneurial Development (personal communication, 2003).

Jordan's Department of Statistics' samples of the Employment and Unemployment Survey (annual Report 2001 and quarterly report 2002 second round) did not contain the information requested. The Director General suggested requesting the statistics from the MOL, the Vocational Training Corporation and the National Centre for Human Resources Development. Contacts were made but no responses received. Cameroon and Tunisia did not reply to our requests for data.

The State Institute of Statistics of Turkey forwarded information collected from the Ministry of National Education on the number of participants in public TCs and apprenticeship TCs for the period 1990-2001 (Table 4). In the case of public centres, data disaggregation by sex of participants is only available for 2001 and, in the case of apprenticeship TCs, a breakdown by sex is available from 1998 to 2001. Expenditures on vocational and technical training were provided from 1998 to 2000, disaggregated by number of courses and sex of participants. It is expected that more reliable statistics would be produced soon due to the imminent participation of Turkey (2004) in the Education, Training and Youth programmes of the European Community. Statistics will need to be generated and collected systematically in order to monitor implementation of the programmes (European Union Institutions press releases, "Commission prepares for Turkey's participation in education, training and youth programmes," DN: IP/03/56 of 16/01/2003, <http://europa.eu.int/rapid/start>).

Comprehensive information was provided by Statistics South Africa based on five rounds of the LFS (02/2000, 09/2000, 03/2001, 09/2001 and 03/2002) conducted by the statistical agency, on the following variables:

- (i) Population of working age (15-65 years) whether they have been trained in any skills useful for work, economic activity, employment status, sex and population group.
- (ii) Number of people who received training that can be useful for work by duration of training, LM status, and educational level.
- (iii) Workers (employers, employees and self-employed) and whether they are trained in skills useful for work by industry and occupational category.

Information was also provided from the Skills Development Planning Unit of the Department of Labour (DOL) through the first quarter (April-June 2002) *National Skills Development Strategy Synthesis Report*. This report is based on information collected by the DOL quarterly from SETAs. Comprehensive data on expenditures in training is difficult to find. As reported by the DOL, it comes from statutory appropriations, i.e. Skills Development Levies. These correspond to statutory expenditures, i.e. 20 % for the National Skills Fund<sup>17</sup> and 80 % for the SETAs. In addition, foreign aid assistance (from the Netherlands, Denmark and European Union) to improve skills development in South Africa has also been received and corresponds to about 10 % of the levies paid. This data is available for 2000/01 and 2001/02 (year end 31 March 2002).

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<sup>17</sup> Expenditures are concerned with claims for unemployed persons trained.

**Table 4: Synthesis of the data received from the African and Middle Eastern countries surveyed**

Country	Expenditure		Participation	
	Data available (years)	Total & breakdown	Data available (years)	Total & breakdown
<b>Turkey</b>	1998-00	Expenditures <ul style="list-style-type: none"> <li>• by number of courses</li> <li>• by gender</li> </ul>	1990-01  2001 1988-01  1995-99	Number of participants in public TCs <ul style="list-style-type: none"> <li>• By number of courses</li> <li>• By gender</li> </ul> Number of participants in apprenticeship TCs <ul style="list-style-type: none"> <li>• By number of courses</li> <li>• By gender</li> </ul> Number of enrolment by gender
<b>Mauritius</b>	1988-2002	IVTB income and expenditure (levies, central government budget, and fees)	2000-01  2001  2000, 01  +2001	Employed population ( $\geq 12$ ) by sex and broad field of qualification <ul style="list-style-type: none"> <li>• By occupation</li> <li>• By industrial activity</li> <li>• By age group</li> <li>• By educ. attainment</li> </ul> Employed population having been trained or not by mode of training and: <ul style="list-style-type: none"> <li>• By age group</li> <li>• By sex</li> <li>• By occupation</li> <li>• By industrial activity</li> <li>• By educ. attainment</li> </ul> Number of trainees in IVTB centres by type of courses <ul style="list-style-type: none"> <li>• By gender</li> <li>• By course level</li> <li>• By educ. attainment</li> <li>• By age group</li> <li>• By employment status</li> </ul>
<b>South Africa</b>	2000/01  2000/01 2001/02	Expenditures on training projects (through Social Dev. Fund) <ul style="list-style-type: none"> <li>• By number of unemployed</li> <li>• By sex</li> <li>• By population groups</li> <li>• By target groups: unemployed &amp; disabled</li> </ul> Statutory expenditures: <ul style="list-style-type: none"> <li>• National Skills Fund</li> <li>• SETAs (25)</li> </ul>	2000-02	Number of people trained <ul style="list-style-type: none"> <li>• By sex</li> <li>• By employment status</li> <li>• By duration of training</li> <li>• By population groups</li> <li>• By educational level</li> <li>• By field of training</li> </ul> Number of workers trained <ul style="list-style-type: none"> <li>• By industry</li> <li>• By occupation</li> </ul>

The Mauritius Central Statistical Office provided data on the employed population (12 years of age or over) by sex, broad field of highest vocational and technical qualification. This information came from the 2000 Population Census and was disaggregated by major

occupational groups, industry, age groups and educational attainment. Information from the Continuous Multipurpose Household Survey (CMPHS) 2001 on employed population aged 12 years and over having been trained or not for their present job by mode of training and age group, sex and occupational class and industrial activity was provided.

The IVTB of Mauritius provided additional data on participation in the training courses offered by IVTB centres. The number of full-time trainees by gender, by centre, course level, educational profile in 2000 and 2001 is available as well as the breakdowns by age group and employment status for 2001. Similar information on enrolment in part-time courses and national apprenticeship scheme was also included in the report submitted by IVTB in 2001. The Board conducts yearly surveys. Data on expenditure was obtained through the IVTB report on "*Financing Training in Mauritius*" (Joosery, 2002). This includes detailed information on the levy collected for the period 1988/89 to 2001/02. The compulsory payment of the training levy at a flat rate of 1% of the total basic salary of employees (instituted in 1989) and the annual budgetary allocations from the Government are the two main sources of funding. From 1989 to 1996, major investments were made by the government that contributed to the extent of 85% and 50% for capital and recurrent expenditures, respectively. The difference was financed by the levy collected. Fees charged from trainees (both school leavers and in-service employees) accounted for about 7 % of total income<sup>18</sup> in 2000-01.

### **3.2.3 Data from Latin America and the Caribbean**

From South America, data was provided by Argentina, Brazil, Chile, Peru and Colombia. In the case of Peru, we received data from both the Ministry of Labour and Employment Promotion (MTPE) and the Industrial and Technical Training Service (SENATI). The MTPE provided data on participation and expenditures in establishment-based training (EBT) collated by the first "*Private Enterprises Survey for the Diagnosis of Human Resources Development*", undertaken in 2001. Data on average expenditures in training (OTJ and OFJ) by origin of capital (national versus foreign) and economic sectors according to the size of enterprises (number of workers) was provided and the number of workers trained by the industrial sector. Individual/worker's investment in training was also reported by economic sector and enterprise size. Expenditures on one specific training programme targeted at youth by source of funds (public and international) were also provided for the period 1996 -2002. SENATI sent data on participation in training programmes for the years 1991 to 2002 and disaggregated by type of training programmes for the period 1998-2002. The number of participants in dual apprenticeships is also available for the period 1991-2002, broken down by occupation and sex for the year 2002. Expenditures in training activities directed to the manufacturing sector are available for the period 1998-2002 and disaggregated by type of training programme (i.e. dual apprenticeship, professional skills and continuous education) in 2002 only. For 2002, total expenditure by source of funds (public, private, international, and individuals) was provided.

The of MTEySS Argentina, through the Secretariat for Employment and Occupational Training (SSOyFP) provided data on the number of trainees and expenditures of VET programmes implemented between 1997 and 2002. Expenditure by type of training programme is only provided for 2002. Data on participation by type of training (i.e. targeted to vulnerable groups, e.g. women and unemployed), economic sector, occupational situation

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<sup>18</sup> Income generated from fees is primarily attributable to part-time courses, which are run on an almost full-cost recovery basis (Joosery, 2002, p.6).

of trainees and source of funds is available for the year 2002. It should be noted that Argentina abolished the payroll tax in 1991 and replaced it by contributions from the central budget. Only recently has an integrated national VET system been considered for development. A proposal for the establishment of such a system was elaborated by the MTEySS in 2002 and submitted to the MOE, employers' and workers' organizations and other social partners involved with VET activities. The lack of an integrated approach at the national level has characterized VET as an area far from the mainstream trend. Moreover, actions in this area have varied greatly, oriented by the supply of training and disconnected from the sectoral and/or local demand as indicated by the SSOyFP.<sup>19</sup> Consequently, the contributions from the central budget for vocational training (VT) have historically been very limited as reflected in the data provided by the Ministry.

In Chile and Brazil, it is the MOL, through specialized agencies,<sup>20</sup> which defines policies and strategies without implementing training actions. Training actions are carried out by a multitude of private or public agents, NGOs, trade unions, etc. as in Chile and, in addition, by national or sectoral training institutions as in Brazil.

The Chilean SENCE provided updated information on participation and expenditure on training by enterprises and apprenticeship, due to the income rebate programme (*franquía tributaria*),<sup>21</sup> broken down by sex, number of workers trained and economic sector. Public and private expenditure by economic activity is also available yearly from 1990 to 2001. Disaggregated data on expenditures and participation in the so-called "social training programmes", i.e. those programmes addressed to vulnerable groups such as youth and women, and funded by the National Fund of Skills Development (FONCAP),<sup>22</sup> has been available since 1991. Since 1993, programmes for the unemployed/labour reinsertion and small and medium enterprises have been funded and data provided until 2001.

In Brazil, vocational training is funded with resources from the Workers' Protection Fund (FAT- *Fundo de Amparo ao Trabalhador*) through the MTE. These resources are calculated on the gross turnover of public and private companies and constitute the federal budget for the social protection of workers. The Fund is managed via a tripartite body operating at the federal level, the CODEFAT, the Deliberative Council for the FAT, constituted by representatives of trade unions, employers' associations and the Government.<sup>23</sup> In 1995, the Ministry, with resources of FAT, implemented the National Plan of Workers' Training (PLANFOR). In this context, PLANFOR was designed not only as a "broad" training programme but, mainly, as a public policy strategy for employment and income generation. The Plan articulates mechanisms that use FAT's resources such as the unemployment funds, micro credit, etc. with the aim of increasing employability, stability and income of workers; raising enterprises' productivity and competitiveness, as well as reducing poverty and inequality. Its strategy is to articulate the existing VET capacity and infrastructure to provide

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<sup>19</sup> "Programas de Capacitación Laboral y/o de Formación Profesional: Evolución 1997-2002", handed over by the Director General of the National Directorate of Employment and Occupational Training/SSOyFP/MTEySS.

<sup>20</sup> In Brazil, the National Secretariat of Training and Skill Development (SEFOR) of the MTE implemented the National Plan for Worker Qualification (PLANFOR) in 1995. In Chile, SENCE, under the supervision of the MOL, operates, manages and regulates enterprises' training programmes, apprenticeship contracts and training actions for disadvantaged groups.

<sup>21</sup> The tax rebate is up to a maximum of 1 % of the firm's payroll, with a floor that benefits small firms.

<sup>22</sup> Since 1998, SENCE has been operating FONCAP, whose resources come from the national budget and are allocated to finance training for disadvantaged groups.

<sup>23</sup> In 2001, the FAT's resources amounted to R\$ 4, 5 billion. From this, about R\$ 500 million were allocated to PLANFOR

vocational training to at least 20 % of the Economic Active Population (EAP) every year.<sup>24</sup> In order to reach this goal, PLANFOR is implemented in a decentralized way, through two major instruments: (i) the State Training Programmes, managed by the State Employment Secretariat and State and Municipal Employment Councils, also tripartite bodies, such as CODEFAT; and (ii) national and regional partnerships established between trade unions and employers' associations managed directly by the MOL and CODEFAT. Through this strategy, PLANFOR, the states and partners seek additional resources besides those from FAT. **Therefore, by adding the resources from the three sources, i.e. FAT, partnerships and State counterpart, it is possible to estimate total expenditures in VT.** In 2001, this amount corresponded to about R\$ 2.3 billion (approx. US\$ 1.1 billion). Data on expenditures and participation in training is available from 1995 to 2001. This can be obtained by providers of training, economic activity, geographical regions, vulnerable groups and occupational categories (Medeheff, 2002).

It should be noted that in Brazil (as in many Latin American countries), total expenditures in vocational training must include the investment made by the sectoral National Vocational Training Institutions (SENAI; SENAC; SENAR; SENAT) that constitute the so-called "S" system<sup>25</sup> and the technical secondary educational institutes integrated into the regular education system. The "S" system is funded by levies on the payroll or parafiscal contributions from companies. These taxes are levied specifically for vocational training and they are almost always calculated as a percentage of the amount of the workers' payroll. The annual levies collected correspond to three times the MTE budget for VT. Only in 2002 was the "S" system budget about US\$ 1.6 billion (Galhardi, 2002b, p. 8). If the budget of the technical schools is added we can have a global estimate of the VT investment in the country. In 1998, for instance, PLANFOR/FAT applied R\$ 409 million in VET programmes and the total budget of the "S" system and the technical schools corresponded to R\$ 2, 6 billion. The total investment in VET was, therefore, R\$ 3, 0 billion that year (MTE/SEFOR, 1999).

The National Training Service (SENA) of Colombia provided information on total expenditures and participation for the period 1993-2002. The number of trainees disaggregated by sex and type of training was provided for the same period, and by occupational situation, i.e. employed, unemployed or outside the LF, in 1996, 1997, 1999 and 2001. Statistics on participation in training for disadvantaged groups, e.g. youth; women, old workers, disabled, etc. are available for the period 1997-2002. Although this is the most important public VTI of Colombia, there are others that play an important role in this area of VET. For instance, private institutions providing non-formal education and training and enterprises that have their own programme of continuous vocational training are also available. In addition, the system of formal education managed by the MOE, has institutions of upper-secondary technical education and tertiary education providing technical education. **Therefore, the budget of SENA cannot reflect the national expenditures in vocational training, nor the total number of participants in such programmes.**

The Statistical Office of Costa Rica (INEC) provided data on national expenditures by major economic sector. There is no indication that the data corresponds to vocational training activities. It was in fact confirmed by e-mail that the data referred to basic and general education only. The National Vocational Training Institution (INA) sent statistics on

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<sup>24</sup> It must be noted that Brazil has an EAP of 75 million persons over 16 years old. The objective of PLANFOR is, therefore, to improve the knowledge and skills of about 15 million persons each year.

<sup>25</sup> The Brazilian model of vocational training institutions is also known as the "S" system due to their similar acronyms (e.g. SENAI, SENAC, SENAR, and SENATI).

participation in vocational training activities provided by the institute for the years 1990, 1992, and the period 1994-2002. These figures are broken down by sex, economic sector, type of training, age group and the occupational situation of those trained, i.e. employed or unemployed. Data on expenditure is not available.

Data from Guatemala came from the NVTIs, i.e. Institute of Technical Training and Productivity (INTECAP). They provided some preliminary information on total training expenditures and participation by sex for the period 1990-2002. The NSO, the institution indicated to be assembling the data, provided the same information, i.e. data from INTECAP.

Among the four Caribbean countries that had indicated availability of statistics on participation and expenditures in VET, only Trinidad & Tobago was unable to provide the information. The Ministry of Labour and Small and Micro Enterprises Development of Trinidad & Tobago informed that the data is in process of being collected and collated and, therefore, not ready for dissemination. The data was expected to be accessible at the beginning of 2003 but no data had been provided at the time of compiling this report.

The Technical and Vocational Education Training Council (TVETC) of Barbados is also trying to assemble data from several institutions which share responsibility on policy development and planning, as well as on the delivery and coordination of the TVET programmes/activities. These institutions are the MOE and the MOL. The former has in its mandate the provision of both technical education and vocational training. The MOL's responsibility and activities in this area are more demand-oriented and concerned with the need of employers and unemployed persons. These activities are implemented through (i) the **Barbados Vocational Training Board (BVTB)**<sup>26</sup> and (ii) the **TVETC**.<sup>27</sup> These two institutions were contacted during the first inquiry and only the Council replied positively to the questionnaire. Unfortunately, the data indicated as available has to be gathered from several different sources. Up to the time of publication of this report, TVETC had only received some statistics from the Barbados Community College (BCC) – an institution subordinated to the MOE - for the period 1992-2002. However, these figures include participation and expenditures not only in vocational training programmes but also in general education as the College provides education and training, both academic as well as in technical and vocational areas. Disaggregation of data by age group, type of training, occupational category, etc. other than sex was not done. This data has never been produced or demanded. As expressed by the Principal of BCC:

*“Even if we ... (could)...get estimates of the numbers of students in each area, it would be very difficult to separate out the training expenditures for each category. **It has not been necessary for us, so far, to make provision for that kind of data base.**”* (personal communication, 26/03/2003).

The NSO of the Dominican Republic sent data on both participation and expenditures on training activities as provided by the National Institute for Labour Training (INFOTEP) -

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<sup>26</sup> BVTB is an institution that is increasingly geared towards the delivery of vocational training programmes such as apprenticeship, skills-training, in-plant and evening programmes in a number of technical areas.

<sup>27</sup> TVETC is a tripartite apex body with responsibility for advising on national policy, developing national plans and establishing standards for TVET and ensuring the coordination and implementation of programmes, tests and qualifications. The TVETC Act 1993-11 also provides for an Employment and Training Fund which is for the promotion and support of training and the upgrading of skills for the LF.

the main institution responsible for both the definition of vocational training policies and strategies and the execution of training programmes and actions. Supplementary information came from (i) the Central Bank based on the National Survey on Income and Expenditures (ENGHI), and (ii) the Government Planning Office on the National Budget Implementation (1998-2001). The last two institutions collected aggregated information on overall expenditures in “vocational education” and education as a whole, respectively. Data on participation in the vocational training courses provided by INFOTEP is available for the period 1982-2001. The number of graduates by sex and occupation, economic activity and employment situation, age groups, provider of training, i.e. its own TCs, enterprises, collaborator centres, community training programmes, and type of training, continuous training, dual apprenticeship, upgrading, etc. was provided for the broader period 1982-2001. Data on participation by educational attainment are available for the period 1983-2001. Data on the operational expenses of INFOTEP for the period 1990-2002 were provided. Expenditures in “vocational education” are estimated by the Central Bank, through the ENGHI, for the year 1997/98. ENGHI also provided the average number of persons enrolled for the period 2000-2002.

Data on participation and expenditure in training from Jamaica was provided by HEART Trust/National Training Agency (NTA). Enrolments in vocational training by sector, type of training programme and sex were obtained for the years 2000, 2001 and 2002. They are published in the respective annual *Statistical Reports by Sector*. Expenditures by type of training programme were provided annually for the period 1995-2002. It should be noted that the main part of HEART TRUST/NTA’s income comes from the 3 % payroll levy. Up to the year 2000, the ratio for income generated from the levy increased to 83.6 %. The second largest source of income was interest rates of approximately 11 %. Other minor sources include generated income (4.5 %) and grant (1 %). Though “training expenses” is currently the second largest item of the HEART budget, and had increased eightfold in absolute terms between 1990 and 1998, its proportion decreased in the total budget from 55 % to 22.3 % in the same period. The first item corresponds to “personal emoluments” that accounted for 16.3% of total expenditure in 1990 and for 46.8 % in 1998 (HEART Trust/NTA/GTZ, 2001). As the HEART Trust/NTA is the coordinating and financing body of TVET, created by the 1982 HEART Act “...to develop, encourage, monitor and **provide finance for training schemes for the employment of trainees**” (ibid. p.24), **we may consider HEART’s expenditures as a reasonable estimate of the island-wide expenses in job-related training activities**. Moreover, the VT programmes offered by the NTA<sup>28</sup> are widely distributed across the island.

The evidence reviewed in this section, and summarized in Table 5, suggests that not much of the data collected, especially on expenditure, can be considered as a country estimate of VET investments. In most of the countries surveyed, the **sources of information are scattered** and, hence, the data is restricted to the specific responsibilities of that particular source. Even in the case of Hong Kong/China where the collaboration of the CSD was remarkable in collecting supplementary information from several sources, the disaggregation of the information by each source does not follow a common pattern and, therefore, cannot be combined or compared. We could try to have an overview of the general situation of

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<sup>28</sup> In the area of institution-based training the NTA manages 10 academies and institutes, 16 VT Centres as well as a heterogeneous group of other institutions, and both finances and supervises the various types of skills development programmes provided. In the non-institutional-based area of training or OJT, the NTA takes responsibility for the School-Leavers Training Programme and the Apprenticeship Programme. It also finances short-term training programmes targeted at employers who require assistance to expand their workforce.

expenditures on training by adding total expenditure from different sources and keeping it at the most aggregated level. **This estimation procedure, based on a simple generalization of the data, would certainly underestimate the actual effort the government, enterprises and individuals have put into this area.** It may be feasible to consider that data from the Philippines, Jamaica, South Africa, Mauritius, Chile and Brazil - countries where there is a single agency responsible for defining policies, strategies and implementing VET though from different sources and reference period - presents a complete coverage of training activities in the respective countries.

**Table 5: Synthesis of the data received from the LAC countries surveyed**

Country	Expenditure		Participation	
	Data available (years)	Total & breakdown (source)	Data Available (Years)	Total & breakdown (source)
<b>Argentina</b>	1997-2002  2002	(METySS) expenditures (central budget) <ul style="list-style-type: none"> <li>By type of training programme (addressed to vulnerable groups)</li> </ul>	1997-2002	Number of trainees (METySS) <ul style="list-style-type: none"> <li>By type of training</li> <li>By economic sectors</li> <li>By occupation</li> </ul>
<b>Brazil</b>	1995-98  1995-2001 2000 1995-98 1996-98	(MTE) expenditures (central budget & public & private partnerships) <ul style="list-style-type: none"> <li>By source of funds</li> <li>By providers of training</li> <li>By economic activity</li> <li>By region and % EAP</li> <li>By target group and economic sector</li> <li>By type of skills training</li> </ul>	1995-98, 01 2000 1995-98 1996-98	Number of trainees (MTE) <ul style="list-style-type: none"> <li>By providers of training</li> <li>By economic activity</li> <li>By region and % EAP</li> <li>By target group</li> <li>By type of skills training</li> <li>By sex, age group, educational attainment and employment situation</li> </ul>
<b>Chile</b>	1990-2001	(SENCE) expenditures (central budget & tax rebates) <ul style="list-style-type: none"> <li>By training programmes to target groups</li> <li>By economic sector</li> <li>By source of funds</li> </ul>	1990-2001	Number of workers trained (SENCE) <ul style="list-style-type: none"> <li>By sex</li> <li>By economic sector</li> <li>By type of training programme</li> </ul>
<b>Colombia</b>	1993-2002	(SENA) expenditures (payroll tax)	1996, 1997, 1999, 2000  1997-2002  1993-2002	Number of trainees (SENA) <ul style="list-style-type: none"> <li>By occupational situation</li> <li>By disadvantaged groups</li> <li>By sex and type of training</li> </ul>
<b>Costa Rica</b>		Not available	1990, 1992 1994-2002	Number of trainees (INA) <ul style="list-style-type: none"> <li>By sex, age group, economic sector, type of training</li> </ul>
<b>Guatemala</b>	1990-2002	(INTECAP) expenditure (payroll tax)	1990-2002	Number of participants (INTECAP) <ul style="list-style-type: none"> <li>By sex</li> <li></li> </ul>
<b>Peru</b>	2001    1996-01,	(MTE) private expenditures <ul style="list-style-type: none"> <li>By origin of K</li> <li>By economic sector</li> <li>By size of enterprise</li> </ul> (MTE) public expenditure in	2001	Number or workers trained (MTE) <ul style="list-style-type: none"> <li>By economic sector</li> <li>By size of enterprises</li> </ul>

	2002	youth training • By source of funds		
	1998-2002 2002	(SENATI) expenditures (payroll tax) • By type of training course • By source of funds	1991-2002 2002	Number of trainees and apprentices (SENATI) • In apprenticeship • By occupation and sex
<b>Barbados</b>	1992-2002	(BCC) expenditures	1992-2002	Number of enrolments (BCC) by sex
<b>Dominican Republic</b>	1997/98	(Central Bank) expenditure in vocational education	2000-02	Number of persons enrolled in VE
	1990-2002	(INFOTEP) expenditures (payroll tax)	1982-01  1983-01	Number of graduates (INFOTEP): • By sex & occupation • By economic activity • By employ. situation • By age groups • By provider of training • By type training • By educ. attainment
<b>Jamaica</b>	1995-2002	(HEART/NTA) expenditures • By type of training programme/area	2000,01,02	Enrolments (HEART/NTA) • By type of programme • By sex • By sector

### 3.2.4 Major features of the data received

- (i) **It was observed that, in most cases, the data on participation and expenditures in training is relatively new or recently collected**

Only a few countries showed a certain tradition in collecting this kind of information/statistics (Table 6). This is the case in the Philippines and Chile where statistics on **participation and expenditures** in VET are available annually from the beginning of 1990 until 2000s, and in Brazil since the middle-1990s. In Hong Kong /China, information over a similar 10-year period is available but only by one type of sectoral training provider, i.e. the CITAs. In the cases of Colombia, Guatemala and Dominican Republic, information on participation and expenditures in VET is mostly available for the whole 1990s. However, this information is not comprehensive. It is restricted to the activities performed by the respective NVTIs. Other countries indicated that they were trying to gather data for the first time and some have failed to assemble them for the purpose of this study due to lack of resources and/or, simply, lack of records on participation and expenditures on VET. The latter can be clearly illustrated by the explanation of the Director of the Central Statistical Office of Zambia who said:

*“We have been following up the Ministries and responses are taking too long from these institutions. The excuses they give range from inadequate staff to **lack of records**”* (personal communication, March 2003).

In general, statistics on participation are easier to obtain and, when available, they cover a broader period of time than those concerned with expenditures on VET. This is illustrated by the case of Turkey. In the case of Jamaica, we can see that different sources have clearly a different coverage and time frame. Statistics on participation are collected

by the LFS and are available for the whole period between 1990 and 2002. On expenditures, however, the data available is from HEART only and limited to a shorter period, i.e. 1995-2000/01.

**Table 6: Data available (by years), country and provider of statistics**

Country	Expenditure (Provider of statistics)	Participation (Provider of statistics)
Hong Kong/China	2000/01 (several sources)	2000-01 (several sources)
Korea	n.a.	1999-01 (one prog.)
Malaysia	1995-01 (one ministry only)	1998-02 (one ministry only)
Philippines	1991-02 (TESDA)	1991-01 (TESDA)
Singapore	2000(1 EBT survey)	2000-01(1 LFS/ST)
Argentina	1997-02 (MOL)	1997-02 (MOL)
Brazil	1995-00 (MOL)	1995-01 (MOL)
Chile	1990-01 (SENCE)	1990-01 (SENCE)
Colombia	1993-02 (SENA)	1993-02 (SENA)
Costa Rica	n.a.	1990,1992, 1994-2002 (INA)
Guatemala	1990-02 (INTECAP)	1990-02 (INTECAP)
Peru	2001 (1 EBT survey MOL) 1998-02 (SENATI)	2001 (1 EBT survey MOL) 1991-02 (SENATI)
Barbados	1992-2002 (TEVTC- 1inst. only)	1992-2002 (TEVTC- 1 inst. only)
Dominican R.	1997/98 (ENCHI-HS) 1998-01 (INFOTEP)	2000-02 (ENGHI-HS) 1982-01 (INFOTEP)
Jamaica	1995/96-2000/01 (HEART)	1990-2002 (LFS) 2000-02 (HEART)
Turkey	1998-00 (MOE)	1990-01 (MOE)
Mauritius	1998/99-2001/02 (IVTB)	2000 (HS) + 2001 (1 survey)
South Africa	2000/01 + 2000/02 (DOL)	02/2000-03/2002 (5 rounds LFS)

(ii) **There is no single agency where statistics on participation and expenditures on training can be obtained**

The main **providers of statistics** on participation and expenditures on VET are the NSOs and the ministries responsible for VET policies and programmes. Among the countries surveyed, nine of them had data provided by the **ministries** involved and responsible for VET activities. The NVTA/B/C is the primary source in countries where this is the institution responsible for monitoring, financing and delivering VET activities (Galhardi, 2002a, pp.23-24). This is corroborated in our sample by countries such as the Philippines, Barbados, Jamaica, and Mauritius. Out of the 18 countries which provided statistics, 7 countries had data from the **NSO**. Among these, 6 also provided supplementary data from other institutions, i.e. the NVTI in the cases of Costa Rica, Guatemala and the Dominican Republic, the NVTB in the case of Mauritius and the MOL in Jamaica.

It should be noted that the data provided by the NSOs are, in general, related to participation of the LF in training activities. Data on expenditures in training were only supplied by the NSO in the case of Hong Kong/China and the Dominican Republic where both countries' statistical offices were able to provide some scattered figures on expenditures in training based on information collected from administrative records from several sources and agencies. The data-gathering process undertaken by the CSD of Hong Kong (already described in Section 3.2.1, p.9) clearly illustrates how disperse are the sources of information on participation and, particularly, expenditures on training. The latter could be only obtained

by accessing specific sources. This and other countries' evidence might be a clear indication that NSOs are not the best source of data on expenditures on VET.

**Table 7: Agencies collecting the information**

Country	NSO	MOL	MOM	MHR	MOE	NVTA	NVTI
Hong Kong	✓						
Korea		✓					
Malaysia				✓			
Philippines						✓	
Singapore			✓				
Argentina		✓					
Brazil		✓					
Chile		✓					
Colombia							✓
Costa Rica	✓						✓
Guatemala	✓						✓
Peru		✓					✓
Barbados						✓	
Dominican R.	✓						✓
Jamaica	✓					✓	
Turkey					✓		
Mauritius	✓					✓	
South Africa	✓	✓				✓	

As previously concluded (Galhardi, 2002a, p.23), these sources of statistics are not mutually exclusive. They are complementary to each other and this complementary role needs to be explored in order to overcome the limitations of each institution. Even in cases where the data was provided by the NSO, it was only possible because of the willingness of the Office to collaborate by assembling, through contacting other institutions and agencies, the data dispersed among a plethora of institutions. When the Office was not supportive, we had problems obtaining data, as in the cases of Viet Nam, Jordan, Tunisia and Zambia.

(iii) **For the majority of countries, there is no systematic and centralized method of collecting statistics on participation and expenditures in VET**

The evidence reviewed seems to reflect a country's VET system which in many cases is highly fragmented with different vocational schools and training institutions being operated by different agencies. Moreover, the little, or even lack of, coordination among different actors/agencies can aggravate the process of monitoring participation and expenditures in VET and, hence, collecting data. This problem seems to be particularly significant in countries where the responsibility for the provision of VET rests with different agencies/ministries/institutions with different degrees of autonomy and over the expenditure they devote to this. The difficulty lies both in identifying overall expenditure where there are transfers involved between government agencies and, more fundamentally, in collecting the data from different spending agencies. As recently pointed out by the NSO in Zambia "... *the training component is so decentralized to the extent where they (institutions) have abandoned compiling their own information*" (personal communication, 4/7/03).

Moreover, with no centralized collection points of statistics on training, there is a danger of underreporting training activities taking place in a particular country. It might also be

cumbersome to try and contact all these individual organizations and different ministries in the respective countries for statistics.

(iv) **The providers of statistics are fragmented and limited in their coverage**

In Malaysia, VET is provided by a plethora of institutions under several ministries, each charged with specific responsibilities. At least 4 ministries are responsible for VET, i.e. MHR, MOE, Ministry of Rural and Entrepreneurial Development and the Ministry of Culture, Youth and Sport. The VET programmes run by each of these ministries differ in content. The MHR provides industrial training and advanced technology training for school leavers (we have so far received statistics on participation and expenditure on programmes directly under this Ministry only). The Pembangunan Sumber Manusia Bhd (literally, the Human Resources Development Limited) under the MHR manages the funds for training of small medium industry and collects data on private sector training. MARA, an agency under the Ministry of Rural and Entrepreneurship Development, handles vocational training for school leavers. The Ministry of Youth and Sports also runs some vocational training programmes. In total, there are about 26 government industrial and skills training institutes. Attempts to obtain statistics from all these ministries were not successful and, up to the time of compiling this report, only data from training institutions under the supervision of the MHR had been received.

Hong Kong/China provides another interesting illustration of fragmentation. In this country, as mentioned before, several organizations/institutions are involved in the promotion and provision of VET. Under the VTC, pre-employment and in-service education and training are provided by the HKIVE, VTC School of Business and Information Systems and its TCs. The CITA provides OFT practical training opportunities for people wishing to become construction craftsmen, technicians and operatives. The CITA is financed by the construction industry itself. Courses are conducted by CITA TCs. The Employees Retraining Board, previously funded by a levy from employers has been receiving annual recurrent funding from government since April 2001.

In Singapore, the system of skills development comprises several key actors and institutions. The most important is the Ministry of Trade and Industry (MTI), supported by a range of semi-autonomous agencies, one of which is the Economic Development Board. In addition, there are the Productivity and Standards Board (PSB), the Institute of Technical Education (ITE), and other industry-specific bodies such as the Precision Engineering Institute. A second key institution is the National Manpower Council (NMC) where the ministries from MTI, MOM and MOE meet. Formerly called the Council for Professional and Technical Education, the NMC has overall responsibility for matching the demand and supply for skills in the economy. A third key actor is the MOE, which has direct jurisdiction over schools, universities and the ITE. In general, the Economic Development Board focuses on skills to meet investors' skills needs, the NMC focuses on coordination of skills supply, and the MOE focuses on long-term HRD, while a range of other institutions focus to short- and medium-term skills needs, notably vocational skills. This includes various VTIs, such as the ITE, and several industry-specific institutes. Finally the PSB focuses on productivity improvements in different industries and firms, and points those firms to appropriate skills training institutions. The PSB thus focuses on workers who are already in the workforce, while other institutions (both training and educational) focus on those about to enter (or re-enter) the workforce (Kuruvilla, Erickson and Hwang, 2002). The statistics we received for 2000 and 2001 came from two surveys conducted by the MOM.

The absence of sufficient coordination of policy and implementation at the level of the ministries sharing responsibility for education and training, i.e. MOE and MOL, is also noticeable in Barbados. At institutional level, the BCC and the Samuel Jackman Prescod Polytechnic, both under the MOE, have no formal structure for planning and coordinating their programmes. Both institutions implement their programmes more or less isolated from the BVTB, under the MOL.<sup>29</sup> In addition to these government institutions offering VET, several private training institutions as well as community-based training institutions are also actively involved in training. However, at the time of writing this report, the TVETC of Barbados had managed to collect data from the BCC only. As stated by the Executive Director of the TVETC of Barbados on 17/04/03:

*“We regret that to date we have only received statistics from the Barbados Community College....We shall continue to persevere with the other institutions...”* (personal communication)

In Latin America, most of the information received is concerned with the areas under responsibility and coverage of the NVTIs. Data from other providers of training, private and/or the regular education system were not included. However, in some countries, these institutions constitute the training offer with widest coverage and where most of the training takes place, e.g. SENATI/Peru and INTECAP/Guatemala. These institutions are, therefore, responsible for both the definition of training policies and the implementation of the training actions at the national level. In countries such as Brazil, the information was provided by the MOL which is responsible for setting the guidelines for HRD and training, managing training funds, conducting programmes for special groups of the population, and promoting the provision of training by social partners. This information disregards the activities conducted by the NVTIs, part of the “S” system, i.e. SENAI (manufacturing), SENAC (commerce and services), SENAR (agriculture) and SENAT (transport). These institutions, on the one hand, design training policies and strategies and, on the other, implement the training programmes for their respective sectors.

This fragmentation of the VET system is a clear obstacle to data collection and might explain why it has been so difficult to obtain these statistics. In the case of Syria, 11 ministries are responsible for VET and each runs its own schools and institutions (European Training Foundation, 2002, p. 24). In Egypt, 6 different ministries provide TVET, and in Jordan 3 different organizations deliver VET: (i) the MOE in its comprehensive, multipurpose, and specialized vocational schools, (ii) the Vocational Training Corporation, an autonomous entity governed by a board of directors and chaired by the MOL, provides applied vocational training in its centres, and (iii) at the postsecondary level, 45 community colleges under the MOE provided technical education and training (Tzannatos and Billeh, 2000). The same reasoning can be applied to the cases of Zambia and Trinidad & Tobago where all the data is scattered over different agencies, and has not been compiled in a systematic way before. If data are provided, as promised, this will represent the first attempt to collect information on investment in VET by these institutions/countries.

The evidence suggests that knowledge of the different types of VET systems in different countries may help to understand the **sources and limitations of data**, as well as why data are not being collected. The prevailing/dominant modes of VET tend to have an effect on which statistics are available in different countries and also tend to affect greatly

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<sup>29</sup> [www.caribbeing.com/bar/HR/barbados\\_tvete.pdf](http://www.caribbeing.com/bar/HR/barbados_tvete.pdf).

cross-country comparability of statistics on participation, but particularly on expenditures on training.

(v) **The two most popular sources of statistics on training activities are the household/LF surveys and reports from training institutions**

As identified by the previous study on the availability of statistics on investment in training (Galhardi, 2002a, Figure 5, p.24), household surveys and reports from training institutions are the two most important sources of statistics available on investment in training. This was corroborated by the data gathered from different providers in the surveyed countries (Table 8). These are followed by other administrative records and lastly by establishment and training institutions surveys. The advantages and disadvantages of each source will be discussed in Section 4.

Statistics based on **returns from training institutions** supplied to a responsible authority were obtained from 14 countries. In the Philippines, Brazil, Chile, Jamaica, Mauritius and South Africa the data provided have a nation-wide coverage. In the case of South Africa, data is collected by the MOL through the SETAs. The monitoring system of workforce skills development is based on reporting by 25 SETAs. In Chile and Brazil, the MOL has the central role in setting guidelines for VET, and through a specific agency (SENCE) and unit (SENFOR) in the respective cases, manages training funds and tax incentives, conducts programmes for different population groups, and promotes the implementation of projects by other agents/institutions. In other countries, statistics were less broad on coverage and limited to the data the relevant authority managed to gather for this study, as in the case of Malaysia and Barbados. In Colombia, Costa Rica, Guatemala, Peru and the Dominican Republic, reports from the NVTIs are an important source of statistics on participation and expenditures on training. These are the most important public institutions in this area, regarding both the definition of policies and strategies and (direct or indirect) implementation of training actions at the national level. It must be noted, however, that other institutions providing VET in these countries, either private enterprises which have their own programme of continuous education and training or other public/private institutions from the national system of education, do exist. Then, the figures provided by the NVTI, despite being representative, cannot be considered as the indicator of national investment in this area.

**Table 8: Source of statistics by country**

Country	Returns from training institutions	Surveys of training institutions	Establishment surveys	Household surveys (LFS, PC)	Other administrative sources
Hong Kong		✓		✓	✓
Korea					✓
Malaysia	✓				
Philippines	✓				
Singapore			✓	✓	
Argentina					✓
Brazil	✓				
Chile	✓				
Colombia	✓				
Costa Rica	✓	✓			
Guatemala	✓				

Peru	✓		✓		
Barbados	✓				
Dominican R.	✓			✓	✓
Jamaica	✓			✓	
Turkey	✓				
Mauritius	✓	✓	✓	✓	
South Africa	✓			✓	

At least 6 out of the 18 countries from which data were collected have included some training related questions in their **household and LFSs**. The CSD of Hong Kong/China sent data based on the household survey on “Employment Concerns and Training Needs” conducted via the *Thematic Household Survey* on an ad-hoc basis, in 2000. This survey covers all the land-based non-institutional population of Hong Kong. The inquiry was conducted again in 2002 but results will be available later in 2003. They were not processed by the time we wrote this report. The Manpower and Research & Statistics Department of the MOM of Singapore is responsible for the collection and dissemination of all manpower related statistics, including the LFSST. This is a short household survey, comprising four questions only. Another household survey on participation in job-related structured training is the “National Adult Training Survey” conducted by the MOM for the first time in the year 2000. This survey is intended to be repeated in 2005 and 2010. Some information on participation and expenditure in training sent by the NSO of the Dominican Republic was based on the ENGHI that includes data on vocational training provided by the NVTI (INFOTEC) and other TCs. In South Africa, data on training have been collected in several rounds of the LFS since 2000 by the South African statistical agency – Statistics South Africa ([www.statssa.gov.za](http://www.statssa.gov.za)). The NSO of Mauritius has sent some information regarding participation in training activities collected by the LFS 1995, the Population Census 1990 and 2000, and the CMPHS 2001 and 2002. In the case of Jamaica, figures on the LF by type of training received are available yearly from 1990 to 2002 and disaggregated by sex.

**Surveys of training institutions** were used by INA from Costa Rica in order to complement the information available, the CSD of Hong Kong/China, IVTB of Mauritius and the INA of Costa Rica. Mauritius conducts yearly surveys of private training providers and available data were downloaded from the website of the IVTB (<http://ncb.intnet.mu/ivtb.htm>) for the 2001 survey. The CSD of Hong Kong/China conducted the “Stocking Survey on Continuing Education” in 2001 which targeted all common providers (public and private) of continuing education programmes, and also supplemented this data with statistics on special training programmes run by the Government and/or other authorities. **Establishment surveys** are a kind of complementary source of statistics as in the case of Singapore and Peru. The EBT survey was conducted for the first time in Singapore in 2001. The survey covers only private sector establishments with at least 25 employees. The MOM intends to conduct the survey once every two years. The MOL of Peru conducted, for the first time, an EBT survey covering private enterprises in Lima with 10 or more employees, in 2000.

Other **administrative records** were the source of information provided by the MOL of the Republic of Korea. These records were based on the allocations of the employment promotion and insurance funds. In Argentina, the data provided were based on the programmes and activities implemented by the MOL during the period 1997-2002. Supplementary administrative records from sectoral training authorities and different training schemes for employee’s retraining, unemployed, disabled persons, etc. were provided by the Government of Hong Kong/China. The Dominican Republic also provided some data from

other administrative records besides the report from the NVTI. None of these administrative sources in the countries provide statistics with close to complete coverage.

It seems that statistically relevant data set on participation and expenditures on training can only be achieved by combining different methodologies/sources (e.g. sample surveys, administrative records, etc.). While time series data may be constructed on both participation and expenditure on training by optimizing the potentialities of existing methodologies, the major challenge is to determine the extent to which the data are representative of training activities for the whole country to be able to compare this data with that from other countries.

#### 4. Cross-country comparability of statistics

This study notes that **there is no best way of collecting statistics on participation and expenditures on training**. Collection of data on participation and expenditures on training are two separate challenges, which should be treated as such. Neither the *providers of information* nor the *sources of statistics* are the same in most cases. Firstly, we analyse the data we received on participation in training and, then, we look at expenditure data across countries in terms of international comparability.

##### 4.1 Data on participation in training activities

In order to determine the extent to which cross-country comparability of data on participation in training activities is possible, the following *key characteristics*<sup>30</sup> were checked on the information received to: (i) commonality of sources; (ii) scope and coverage, (iii) classification systems, (iv) age groups, (v) sex, (vi) reference period, and (vii) frequency of data collection.

The first point to note is that statistics on participation in training come from different sources (see Table 9) and each has its specific aims and objectives. These are reflected in the coverage of data, targeted and age group, reference period and frequency, for instance. Therefore, strict cross-country as well as within country comparisons of data from these different sources is very difficult. Nevertheless, **population censuses and LFSs have some potential for cross-country comparisons**. In both cases, training related data can be collected from a representative sample of the total population or certain types of households expected to be participating in training activities regardless of whether the person is employed/unemployed or inactive. The usefulness of these data sources lies in allowing cross tabulation of different variables with ease. For example, it would be possible to do cross tabulation and to disaggregate data on participation in training activities by age group, sex, educational attainment, occupational class, employment status, etc.

It should be noted, however, that while **population censuses** have the advantage of complete coverage of the population, the infrequency<sup>31</sup> with which they are held i.e. once every ten years, as in the case of Mauritius, may not help us to achieve the objective of constantly monitoring the LM with respect to provision and receipt of training. More frequently collected data would be needed for this purpose. In this respect, **household and**

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<sup>30</sup> This is data comparability criterion developed by KILM for the Labour Market Information Libraries Indicators.

<sup>31</sup> Population censuses are only carried out once every 5, or in most countries 10, years. The census is an instrument for the description and analysis of structures which can be assumed to be fairly stable over time. It is not useful for monitoring shorter-term changes (Hoffman and Lawrence, 1996).

**LFSs** could be a better source of comparable statistics on participation in training activities. They can be conducted much more frequently, i.e. twice a year in the case of South Africa, or 4 times a year in the case of Jamaica, or on a yearly basis in the majority of countries (except for Hong Kong/China). They also have the advantage that the number of people interviewed is only a small (representative) fraction of the total population, and thus the cost of each round is reduced significantly (Table 10).

**Table 9: Common data sources on participation, coverage and comparability across countries**

Common data sources	Population coverage	Comparability
Population census	Whole population	Cross-country comparability possible
LF/household Surveys	Sample of population	Cross-country comparability possible
Returns from training Institutions	Participants in training institutions only	Not easily comparable across countries
Surveys of training institutions	Participants in training institutions only	Not easily comparable across countries
Establishment surveys	Participants in EBT only	Not easily comparable across countries
Administrative records	Participants in specific LM training programmes	Not easily comparable across countries

While data from **population censuses and household/LF sample surveys** could, at least in principle, include questions on training issues with the potential of being comparable, the degree of comparability is limited because of several factors, which include differences in definitions, reference periods, classification systems, etc. For example, in the case of Mauritius, “*on-the-job training*” was considered as training in the 2001 CMPHS but not in the 2002 survey. In the 1990 Population Census VET had a separate category from tertiary education and in the 2000 Census it was included under the heading of “*qualifications other than those of the primary and secondary levels.*” While the **reference period** for the 2002 CMPHS is 12 months, the 2001 CMPHS does not mention any specific reference period. Therefore, the lack of consistency in terms of classification and reference period is also an obstacle to 'within country' comparisons over time. The data received from, Jamaica and South Africa; for example, do not refer to any specific reference period either. In some instances, **international classification systems** are not strictly adhered to. While 15 years and older is often used internationally as the reference age group in household and LFSs, the reference age group for Mauritius is 12 years and over (Table 10).

**Table 10: Data on participation in job-related training activities from household surveys**

Country	Age group	Reference period	Population coverage	Source of data	Data available (year)	Frequency of data collection
Hong Kong/China	15+	Last 12 months	Sample	HS	2000, 2002	Ad hoc
Jamaica	15+	No reference period	Sample	LFS	1990-2002	4 times a year

Mauritius	12+	No reference period	All population	PC	1990, 2000	1 in 10 years
		No reference period	Sample (9,900 households)	LFS	1995	Annual
		1- 6 months, 7- 12 months, > 60 months ago	Sample(4,725 household)	HS (CMPHS)	1991 2001	Annual
		Past 12 months	Sample (6,300 households)	HS (CMPHS)	2002	
South Africa	15+	No reference period	Sample	LFS	2000 – 2002	Twice a year
Singapore	15+	Past 12 months	Sample (3,600 EAP)	LFS	2000	Once in 5 yrs (2005, 2010)
			Sample (3,200 private establ.	LFSST EBTS	2001 2001	once a year Once in 2 years

In most of the countries, the educational classification system is not compatible with the International Standard Classification of Education (ISCED'97). This further complicates the exchange and comparison of statistics across countries. However, for the countries able to provide data on participation in training by occupational category and industry category, i.e. South Africa and Mauritius, it was noted that their classification systems are largely compatible with the International Standard Classification of Occupations (ISCO'88) and the International Standard Industrial Classification (ISIC Rev. 3), respectively, hence the data provided are comparable in these respects, at least up to 1 digit level.

Variations in the **training questions** asked in different countries are noticeable and there is no doubt that this may result in different observations and comparability problems. For example, in South Africa (LFS), Mauritius (2001 CMPHS), and Jamaica (LFS) a question is asked on whether a person has been trained (*i*) in skills that can be used for work, (*ii*) for present job, (*iii*) current job, respectively, or whether a person has (*iv*) taken part in any structured training or education connected to his/her job as in the case of Singapore (2001 LFSST). Jamaica, in its Population and Housing Census, asks whether a person is being trained for a specific occupation/profession. In the 2002 CMPHS, Mauritius asks whether a person has attended any formal training programs, while in the 2001 CMPHS the question is whether a person has ever been trained for his/her present job. While all the other surveys are silent on who provided the training, the Government of Hong Kong/China, in its Thematic Household Survey, asks specifically whether a person participated in job-related training courses arranged by the employer or at his/her own initiative.

The use of **household surveys** as a possible source of comparable statistics on participation in training activities depends, however, on the type of questions asked and, principally, the systematic repetition of them in a sequence of surveys. The most promising approach, as initiated by Singapore, Hong Kong/China, South Africa and Jamaica, for instance, seems to be the inclusion of a small number of relevant questions in the country's regular LFS, which should have a sample large enough to make it possible to estimate a few key indicators to monitor the overall issue of participation in VET in that specific country. The harmonization of such questions among a sample of countries is the next issue to be considered in terms of international comparison. From a cost effectiveness perspective an "optimal" strategy is to include "common defined" modules in the existing general LFS, and

occasionally extend it through specially targeted supplementary samples and more detailed questions.

**Reports from training institutions to a relevant authority** are an important source of statistics on participation in training in 14 out of the 18 countries surveyed. Although data from this source could be obtained on a yearly basis, the comparability of such data is a major problem. First of all, the data is restricted to the area of activity of the training institutions which can be sectoral or regional-oriented. Moreover, data can be very fragmented and only concerned with training activities provided by accredited institutions and/or collaboration centres that are not representative of the whole country VET infrastructure. Not included in the data are other public education institutions or technical institutes integrated into the regular education system. As emphasized by SENA:

*“Although SENA is the most important VET institution in Colombia, there are other private institutions of non-formal education. There are enterprises that have their own training programmes and, in addition, institutions of secondary technical education and universities integrated in the formal education system and managed by the MOE that provided VET”* (personal communication, 28/03/03).

In other cases, data can be incomplete and not very useful for international comparison purposes. For instance, data on participation provided by the TVETC of Barbados was only from the BCC. Data from other institutions that comprise the country VET system was still missing. Besides, the information provided is not only concerned with vocational training as the institution is also concerned with providing general education. As stated by the Principal of the Community College:

*“Since the College provides education and training, both in academic as well as in technical and vocational areas, the figures given... are not “participation in training” only, ...but could be more correctly stated as participation in Education and Training”* (personal communication, 26/03/03).

Although the difficulty to disentangle general education and VET was pointed out in this case, it can be more generally considered where training provision takes place in colleges or other educational establishments which provide both types of education. In addition, the breakdown offered by these institutions on participation in training by industrial sector, occupational level, and type of training cannot be compared as the national classification systems used are not the same. They can be compared neither inter-regionally nor internationally as they also do not comply with the international classification system.

**Establishment surveys and surveys of training institutions** may give accurate estimates of the numbers of participants in companies and training institutions respectively. However, these sources are not very useful for cross-country comparisons in the sense that they only give a partial picture of participation in training activities. The information provided by these sources is limited by what can be easily extracted from the records which they (need to) keep and by excluding information on those people who would have participated in structured training activities outside these institutions, and which do not necessarily lead to a recognised qualification, but are important in enhancing or developing an individual's skills, knowledge and competencies. Such training activities are offered by

enterprises, for example, through OJT and/or OFT training. Except for Peru and Singapore, we did not receive information on private enterprises' investment in training.<sup>32</sup>

Statistics on participation in training based on **administrative records** can be obtained from those countries where there are specific or special LM training programmes run by the public authorities, whether in training institutions or in collaboration with enterprises. For example, the MOL of the Republic of Korea supplied data on the Vocational Ability Development Training for Employees, which is funded through the Employment Insurance Fund. It also provided data on training for specific target groups, i.e. Vocational Training for the Unemployed Female Household Heads and Vocational Training for the Disabled, as well as several other training programmes for the unemployed.

If there can be a way of ensuring the complete coverage of VET activities for the whole country by drawing together information from **household surveys, administrative records and/or returns from training institutions**, then, from this data, we may be able to develop, for instance, the following indicators and also compare the data across countries:

- Participation in VET as a percentage of working age population.
- Participation in VET as a percentage of the LF.
- Participation in VET as a percentage of youth population.
- Participation in VET as a percentage of unemployed population.
- Non-participation in VET as a percentage of the LF.

These indicators would be quite useful in providing an indication of participation in VET in different countries and may need to be continuously improved and updated as data become more available. However, there may be a need to proceed with caution in using them, bearing in mind the limitations of the data from which they can be constructed.

#### **4.2 Data on expenditures in training activities**

The data received on training expenditures is mainly on **public expenditures** on VET, except for Hong Kong/China, Mauritius, Singapore, Brazil and South Africa, which also provided additional data from sources other than the government. Complete data on enterprise expenditure on training is only available from Singapore, through the 2001 Employer Supported Training Survey, and Peru through the 2001 Survey on Private Companies for the diagnosis of HRD undertaken by the MOL. Data for Malaysia, the Philippines, Turkey, Costa Rica, Guatemala and the Dominican Republic are too aggregated and it is difficult to tell which expenditure items were included/excluded in the data.

The major source of statistics on **public expenditures** in training is the **reports from training institutions to a relevant authority**. These are particularly relevant in countries where the levy system applies to training and, therefore, firms have an incentive to record expenditures in training such as in the LA countries, but also in Mauritius and South Africa. The limitations of these records have been already commented on in the previous section. **Administrative records**, as already said, report data related to training for specific programmes and/or target groups, as in the case of Hong Kong/China. Even in countries where data on expenditures from levies are available, these cover only part of spending on

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<sup>32</sup> Data and information on enterprises' expenditures in VET are being sought through the IFP/SKILLS initiative to conduct a pilot inquiry on statistics on investment in training by enterprises launched early 2003.

training. The remaining part, funded from outside the levy system, either by companies or individuals, has still to be identified. When the MOL or NVTA is the major player in the VET system in a particular country, **public expenditures** in VET are collected in a more systematic way, as in the case of the Philippines, Brazil, Chile and Jamaica. The other source of statistics is **establishment surveys** that are also limited in terms of coverage. It is restricted to certain kinds of companies, in general private and with more than 25 employees, and a certain region of the country, as in the case of Singapore and Peru, respectively.

Comparison of the data received on expenditures on VET was difficult as the information is not uniform. In some cases, we received data on the government allocation to VET from the central budget, as in the case of Brazil via the FAT. In other cases, it related only to one ministry allocation, as in the case of Malaysia and Argentina or related to FONCAP, as in Chile.

Expenditures on training funded by levies on the payroll of public and/or private companies were obtained from the countries applying this system. Actual expenditures on training by specific training institutions were obtained from Hong Kong/China, Turkey and Barbados. Information on expenditures for disadvantaged groups was obtained through records from specific programmes directed to these groups as in the cases of Hong Kong/China, South Africa, Chile and Brazil. Breakdowns on the information by type of training, industrial sector and occupational situation, when available, cannot be compared across countries because there is no common definition for the variables provided.

The problem to compile a comparable set of data on expenditures in VET is, therefore, two-fold, conceptual and practical. The former needs to be solved before tackling the latter since they very much affect the process of actually collecting and, hence, comparing the data. The practical difficulties stem from not only the conceptual problems. It is common knowledge that VET funding mechanisms vary from country to country and also that sources of funding are so diversified, which makes it difficult to adequately capture how much is spent on VET within and across countries, without running the risk of massive mis-measurement of expenditures on training.<sup>33</sup> If it is difficult to identify expenditures on VET in the public sector, it is even more difficult to do so in the private sector. The fact that firms have little incentive to record expenditures on training makes it almost impossible to arrive at an accurate estimate of enterprise investment on training within and between countries. Private investment in training, either by the company or the individual, can only be collected through periodic enquiries. In the case of the individual, data on expenditure could be collected through household surveys. From our sample, no country includes in the household/LF surveys questions which would enable data on this to be obtained. Mauritius seems to be moving towards this direction. In the 2002 CMPHS, it included a question on whether the training course was paid for by the employer of the person concerned, the person concerned, trade union, or international institutions, etc.

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<sup>33</sup> The absence of a standardised classification of training costs aggravates the problem of estimating training expenditures.

**Table 11: Common data sources on expenditures on training, coverage and comparability across countries**

Common data sources	Population coverage	Comparability
Reports from training institutions	Participants in training institutions only	Not easily comparable across countries
Establishment surveys	Participants in survey only	Not easily comparable across countries
Administrative records	Participants in specific LM training programmes	Not easily comparable across countries

Although the discrepancies in the data on expenditures on training activities, this data would remain very useful for the *Database on Investment in Training*, especially considering its usefulness in allowing policy-makers to monitor how expenditures on education and training compare with the levels of national resources and how total training costs are shared among governments, enterprises and individuals. It would be necessary to define which items to include under the definition of expenditures so that countries would be able to provide uniform data. We also need to have an appreciation of the VET funding mechanisms existing in different countries to be able to determine the usefulness of the data received in terms of comparability. A way of avoiding this problem might be to identify the dominant VET system in a particular country, or the authority with major responsibility over VET, and use the data provided to give a rough estimate of expenditures on VET. If this is acceptable, then we may be able to say the data on expenditures on VET received is enough to give an **estimate** of VET expenditures in a particular country. Furthermore, we may be able to use this data to calculate some indicators on expenditures on VET which may be useful for comparing VET systems across countries, but which we are currently unable to construct based on the data received, such as the following:

- Total expenditure on VET as a percentage of GDP per capita.
- Public expenditure on VET as a percentage of GDP per capita.
- Total expenditure on LM training programmes as a percentage of GDP per capita.
- Expenditure on VET as a percentage of total expenditure on education.
- Ratio of participation in VET to expenditure on VET.

## 5. Main conclusions

This report is the result of the “follow-up” study on the first ILO Inquiry on Statistics on Investment in Training conducted in 2002. This study examined data on **participation and expenditures in training** received from 18 countries: 5 from the Asia & Pacific region; 10 from the Latin American and the Caribbean countries; 1 from the Middle-East and two from Africa. The data was obtained primarily in **hard copy** and through direct contact with the sources of information in the countries concerned. Information displayed on the website of some providers was also collected. This means of access, however, proved not to be a relevant source of statistics on job-related training activities. In most cases, the websites presented only general institutional information. Statistics, when available, were on broad characteristics of the LM.

The evidence shows that statistics on participation and expenditures in training activities are only beginning to emerge in the majority of countries surveyed. In some countries financial and human resources are not available, so they have not yet started to

compile the information. In others, it was observed that the required statistics had not been collected before in a systematic manner, and also that there was no centralized collection of the statistics in question. There is no single agency where statistics on participation and expenditures on training can be obtained. The sources of information are fragmented and limited in coverage. They vary, within and among countries, according to the prevailing Vocational Education and Training (VET) system. The providers of statistics are, therefore, the ministries responsible and involved in training activities, the National Vocational Training Institutions (NVTIs) and/or the National Vocational Training Agency/Board/Council. In most of the countries, there seems to be no effort to obtain in a systematic manner, and at an aggregate level, statistics on VET activities by the numerous agencies involved. In cases where the National Statistical Offices (NSOs) provided the information, this was only possible because the statistical office gathered the information from several sources/institutions and government programmes. The coverage, however, of the data provided is limited to the area of activities and responsibility of each provider. Where a single agency has been instituted to take responsibility for VET management and/or delivery, i.e. the Philippines (TESDA), Jamaica (HEART/TRUST NTA), Mauritius (IVTB), Brazil (SEFOR/MOL) and Chile (SENCE/MOL), etc, it may be possible to obtain statistics on participation and expenditures on **institutional training** (normally leading to an award or certificate) which may be representative of VET activities in the whole country. In this instance, it will be possible to determine the total number of VET enrolees/participants/graduates (where data are available) and also to disaggregate the data by sex. Further disaggregation and cross-country comparison of data, for example, by field of training, course type and level, employment status, occupational situation, etc. may not be possible because of the differences in vocational training systems as well as national data reporting systems. The fragmentation of the VET system seems to be a clear obstacle to data collection and might explain why it has been so difficult to obtain these statistics. Knowledge of the different types of VET systems in different countries may help to identify the **sources** and understand the **limitations of data**.

The study notes that **there is no best way of collecting statistics on investment in VET**. Collection of data on participation and expenditures in training are two separate challenges, which should be treated as such. Neither the *providers of information* nor the *sources of statistics* are the same in most of the cases. Useful data on **participation** for international comparison can be found from those countries that have included training related questions in their questionnaires for **population census and LFSs**, e.g. South Africa, Singapore, Mauritius, and Jamaica. These surveys are capable of yielding consistent time series data for the whole country. Such surveys are carried out by the **NSOs** in most countries, except for Singapore where the Ministry of Manpower has the mandate to collect all manpower statistics. Differences in definitions, reference periods, classification systems, etc. among the surveys make it a little difficult to compare data across countries. The inconsistency of the questions asked, and the infrequency with which some of these surveys are held, may not help to achieve the objective of constantly monitoring the LM with respect to participation and expenditures in training, and the problem is accentuated when the data come from sources other than LF/household surveys. The limitations are inherent to the sources of data that in our case are the reports from NVTIs, surveys of training institutions and surveys of (non-training) establishments. All these sources compile data on participation in training with respect to their area of activity and/or records that are (need to be) kept. They exclude people who would have participated in structured training activities outside these institutions. Data from other administrative records are specific to certain LM training

programmes and/or target groups and, therefore, also limited in terms of international comparability.

These limitations are also applied to data on **public expenditure** in training, the major source of which are the reports from training institutions to a relevant authority, followed by other administrative records and lastly, establishment surveys. Comparison of the data received on expenditures on VET is very difficult because the information is not uniform. In some cases, we received data on the government allocation to VET from the central budget. In other cases, it was related only to one ministry allocation or levies on the payroll of public and/or private companies from countries applying this system. Breakdowns on the information by modes of training, industrial sector and occupational situation, when available, cannot be compared across countries because there is no common definition for the indicators provided. Moreover, in some institutions, it was difficult to identify expenditure on VET as distinct from that on general education, especially when both types of training take place in the same establishment. The practical difficulties to compile a comparable set of data on expenditures in VET stem not only from the conceptual problems. It is common knowledge that VET funding mechanisms vary from country to country and also that sources of funding, are very diversified, which makes it difficult to adequately measure how much is spent on VET within and across countries without running the risk of massive mis-measurement of expenditures on training.

While it is difficult to collect data on **expenditures** on VET by the public sector, it is even more difficult to obtain data on training offered by the private sector, e.g. enterprises, who are often not obliged by law to maintain records of their training activities/spending and to furnish the responsible authorities. The fact that firms have little incentive to record expenditures on training makes it almost impossible to arrive at an accurate estimate of enterprise investments on training within and between countries. As the evidence shows, it was only in the countries where some sort of levy system applies to training that companies recorded data on training systematically, as in the Latin American countries but also in Mauritius and South Africa. **Private investment** in training, either by the company or the individual, can only be collected through periodic enquiries. In the case of the individual, data on expenditure could be collected through household surveys. In the case of enterprises, it could be accessed through specific surveys as the one launched by the ILO at the beginning of 2003, including companies from about 30 non-OECD countries. Results are now under analysis<sup>34</sup> and will be available by the end of the year.

The data on participation and expenditures on training activities received remain very useful for the establishment of the preliminary *Database on Investments in Training*, especially considering its usefulness in allowing policy-makers to monitor the level and patterns of participation, resources input and utilization, output and outcome and related trends, gaps and discrepancies. The 18 countries surveyed indicated that they were willing to collect and provide the information required and, more interesting, intend to continue to do so. Working with a sample of countries may make it possible to harmonize and pilot data collection procedures, instruments and methodology and, more importantly, to get first-hand experience regarding data collection problems and how these can be circumvented. These countries can actually constitute the *Preliminary Database on Investment in Training*.

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<sup>34</sup> See TOR and questionnaire designed for the “Inquiry on Statistics on Investment in Training by Enterprises” at <http://www.ilo.org/public/english/employment/skills/training/invest/inquiryent.htm>

While time series data may be constructed on both participation and expenditure on training by optimizing the potentialities of existing methodologies, the major challenge is to determine the extent to which the data is representative of training activities for the whole country, at least, to be able to compare these data with data from other countries. We have a better possibility to obtain a statistically relevant data set by drawing together information from many sources, e.g. household surveys, administrative records and/or returns from training institutions. In this way, we may be able to generate data to calculate some **key indicators** on participation and expenditures on VET, e.g. participation in VET compared with GDP per capita, public expenditure on VET as a percentage of total public expenditure, unemployment and VET participation rates, etc. which may be useful in helping governments to assess where they stand in terms of investment in this area relative to other countries. This would be an opportunity for the ILO to work with countries included in the *Preliminary Database* to ensure that the required data is collected.

There is a clear opportunity for the ILO to mobilize resources to help countries to realize the importance of systematic and harmonized collection of data on VET and recognize the role of quantitative information in developing effective policies in this area and improve their statistical programmes and collection of the data in question on a regular basis. If the need for this kind of data is clearly understood and appreciated, then countries may feel more motivated to generate and collect comparable data. Hence the setting up of the *Preliminary Database on Investments in Training* should be regarded as **a first attempt by the ILO to promote and initiate collection of the statistics on participation and expenditures in training in a more comprehensive, systematic and comparable manner**

## **6. Way forward: some recommendations**

**Establishing contact with the relevant organisations**, e.g. the Organisation for Economic Cooperation and Development (OECD), the Statistical Office of the European Communities (EUROSTAT), the European Training Foundation (ETF), the American Society for Training Development (ASTD), etc. and learning from their experiences will be useful to map out a strategy for future data collection on participation and expenditures on training. Several surveys and projects<sup>35</sup> are running at the moment in more advanced countries but also including countries from the Mediterranean area (Africa and Middle East) and acceding countries from Central and Eastern Europe. These might be useful points of reference in the design of a consistent methodology for sustainable future data collection. **Methodological considerations for data collection need to be discussed more with in-house consultations (IFP/SKILLS, KILM and STAT) and collaboration with the other international agencies mentioned, and in the light of the findings of this study.**

**Taking advantage of existing national/regional networks.** Institutional networks at national or regional/sub-regional levels such as the Statistical Economic and Social Research and Training Centre for the Islamic Countries<sup>36</sup> and the ETF, with its network of National Employment Observatories, have been approached and have expressed willingness to collaborate and share experiences with the ILO in this area. They might be interested in

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<sup>35</sup> These include, the International Adult Literacy Survey by the OECD, the Continuing Vocational Education and Training (CVET) Survey by Eurostat, the European Harmonised Labour Force Surveys, the Key Indicators on Vocational Education and Training by the ETF, the World Education Indicators (WEI) Project by UNESCO/OECD, The Leonardo da Vinci Project on European Training Statistics, etc.

<sup>36</sup> The Centre collects, processes and disseminates socio-economic data and information relating to the OIC member countries, about 58 in total ([www.sesrtic.org](http://www.sesrtic.org))

collecting the statistics in question, and may also be interested in collaborating with the ILO to assemble the data. More of these organizations may need to be identified for purposes of future data collection.

**Setting up the preliminary database.** Preparatory information sessions in the form of seminars, workshops, missions, etc. may be appropriate to determine the level of interest of the countries chosen to participate in the *preliminary database*<sup>37</sup> and to establish a **common understanding** on what needs to be done based on national requirements, which indicators could be developed based on national experiences and methods, which agencies will be involved in present and future data collection and their respective responsibility and the level of resources required by each country.

- On the basis of the national experiences reviewed, a **basic common approach** should be developed for the purpose of international comparability. A preliminary set of indicators should be selected and mutually consistent and harmonized standard definitions and classifications developed. **Countries should agree on the use of common concepts and terminologies and may be requested to prepare uniform tables with the required data, including statements/notes on data collection procedures, scope and coverage of the data collected, etc.**
- Comparable data on **participation** in training may be collected from already **existing surveys**, i.e.; LF/household surveys. These surveys are capable of yielding consistent time series data for the whole country. It is also possible to harmonize national surveys in terms of content, concepts, definitions, data processing and analysis and this may be a sure way of yielding comparable data across countries. Such surveys are carried out by the **NSOs** in most countries. If initiating data collection from surveys proves costly, then the option of getting data from other sources, i.e. **administrative records and/or returns from training institutions** may be explored, but, bearing in mind the limitations already discussed.
- For data on expenditures on training, a different strategy might need to be adopted. What expenditure data needs to be collected, its sources (private, public or both), the costs of collecting the data, consistent/uniform format of presentation of data, common definitions and limitations to data comparability are some of the issues that still need to be clarified. There may be a need to initiate **country-specific studies** to bring out the diversity of VET funding mechanisms in different countries. **While it may not be possible to strictly compare training expenditure data across countries due to a number of conceptual and practical problems, it may be possible to indicate changes in spending over time in individual countries and also to identify trends in expenditure in the different areas where training takes place.**

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<sup>37</sup> Argentina , Barbados , Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Guatemala, Hong Kong/China, Jamaica, the Republic of Korea, Malaysia, Mauritius, Peru, the Philippines, Singapore, South Africa and Turkey.

- Any statistics collected would need to be checked and verified/validated at national level in a standardized manner before being transmitted to the ILO. Participating countries may also be asked to regularly submit to the ILO some **relevant reports, publications, etc. which may help in understanding their VET systems, funding mechanisms as well as data collection instruments.** The incentive to participate in the preliminary database may give enough motivation for participating countries to cooperate and to assemble the relevant data. And also, with more time and resources, some of these ministries/agencies may be able to access other sources of information, which we were unable to contact at this point.

While working with governments or national institutions might ensure continuity of data collection, it may also be feasible to identify national experts/consultants who would be contracted to collect or, at least, coordinate collection of the data in question and to prepare national reports on the basis of a common outline. Such reports may describe the economic, policy, legal and administrative framework to the financing of the VET system, define the different types of training according to the national context, identify the sources of funding, explain the allocation, monitoring and reporting mechanisms, analyse the major issues and concerns about the quantitative available data. In this respect, **the preliminary *Database on Investment in Training* will not only contain quantitative, but also qualitative data, which may help in understanding the diversity in VET funding and systems across countries.**

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