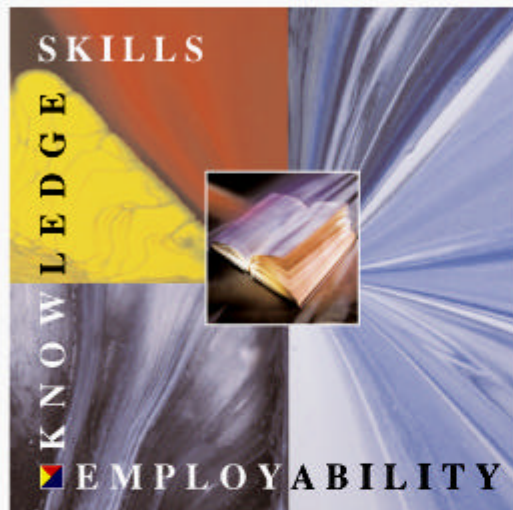


**SKILLS**

**WORKING PAPER NO. 13**

InFocus Programme on Skills, Knowledge and Employability



*Employment Services*

**Current practices in Labour Market Information Systems  
development for human resources development planning  
in developed, developing and transition economies**

Nicholas Mangozho



INTERNATIONAL LABOUR OFFICE · GENEVA

**Current Practices in Labour Market Information Systems Development For  
Human Resources Development Planning in Developed, Developing and  
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By

**NICHOLAS MANGOZHO**

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## **FOREWORD**

Human resources development is one of the priority areas of the ILO, in the light of its key role in addressing poverty and unemployment as well as promoting the decent work agenda. The InFocus Programme on Skills, Knowledge and Employability (IFP/SKILLS) promotes policies and programmes that increase investments in effective and responsive training and human resources development, including specific programmes for people who face barriers in labour markets. Sound and comprehensive labour market information allows policymakers and programme administrators to identify gaps in vocational training, employment services and other human resources development programmes and to design strategies to address those gaps. It also empowers individual employers and workers to make informed decisions regarding employment.

This working paper presents the current state of labour market data collection, analysis and dissemination practices in a selected sample of developed, transition and developing countries with a view to identifying what could be termed good practices in the development of labour market information systems (LMIS) and the use of labour market information (LMI) for human resource development planning. The paper provides a description of the evolution of labour market analysis as an alternative approach to manpower planning, and an examination of current practices in LMIS development in the selected sample of countries. It reviews the progress in the development of LMIS, identifies barriers to LMIS development and proposes some strategies for LMIS improvements. These strategies could provide a useful starting point for a country wanting to establish an LMIS or upgrade an existing one.

In particular, “the system maps” in the second chapter present current practices in the generation, analysis and dissemination of LMI along with the comments on the challenges faced by each of the selected countries. The consistent presentation approach used in this chapter facilitates the identification of common patterns in the development of LMIS and the use of LMI for policy and program development and planning.

Nicholas Mangozho gratefully acknowledges the assistance of Bruce Mathews and Ellen Hansen in the development of this working paper. In addition, the comments of Robert Pember, Reynold Simons and Alexander Samorodov of the ILO, as well as Irene Staveren of the Institute of Social Studies, The Netherlands, were greatly appreciated.

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## INTRODUCTION

This working paper is concerned with the development of Labour Market Information Systems (LMIS) and the application of Labour Market Information (LMI) in the formulation and implementation of Human Resources Development (HRD) policies and programmes. The term “Labour Market Information” as has been defined by the ILO refers to:

Any information concerning the size and composition of the labour market or any part of the labour market, the way it or any part of it functions, its problems, the opportunities which may be available to it, and the employment-related intentions or aspirations of those who are part of it.<sup>1</sup>

HRD is one of the priority areas of the ILO, in the light of its key role in addressing poverty and unemployment as well as promoting the decent work agenda. The current state of labour market data collection, analyses and dissemination practices in a selected sample of developed, transition and developing countries is reviewed, with a view to identifying what can be termed good practices in the development of Labour Market Information Systems (LMIS) and use of LMI for HRD planning. The need for up-to-date, reliable and comprehensive information on various aspects of the labour market has been extensively researched, so this will not be explored here.<sup>2</sup> It is however important to note that the most important role of the human resources and employment planners is to correct distortions and imbalances caused by structural labour market changes; hence the availability of information which gives an accurate picture of the state of the labour market provides the foundation for taking corrective action.

The paper does not seek to address how to establish a Labour Market Information System; several other resources exist that are useful in this regard.<sup>3</sup> The main objective here is to draw practical lessons from current practice and to help policy makers who shape HRD policies and programs to appreciate what can be achieved depending on the labour market situation and level of resources at their disposal. More specifically, this study seeks to achieve the following objectives:

- To identify the sources of LMI and how information from the different sources is pulled together into tangible products that are used or can be used by policy makers and institutions concerned with HRD activities.
- To identify the different LMI stakeholders and reveal how they share information and co-ordinate their activities.

This review would be particularly useful to: 1) government agencies/officials whose policy focus is on Human Resources Development; 2) managers of training and employment service institutions, both public and private; 3) the social partners and 4) all those institutions and individuals concerned with the collection, analysis and dissemination of LMI as well as formulating and implementing HRD policies and programs.

The paper is organised into four Chapters and has three annexes: Chapter 1 explains (very briefly) the evolution of Labour Market Analysis as an alternative approach to manpower planning. The chapter also identifies the main users of LMI, the kind of information they need

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1 Thuy, P, Hansen, E and Price, D (2001:57).

2 See Richter L, 1989; Richards and Amjad, 1994; Sparreboom T, 1999 and Garonna et al 2000 for example.

3 For a detailed discussion on how to set up and improve LMIS, refer to Economic Commission for Africa (1996) or Sparraboom, T (1999).

to successfully carry out their functions and more importantly the HRD policy concerns that should be addressed by LMI.

Chapter 2 compares the experiences of a selected sample of countries with LMI generation and use. This is done by presenting “system maps” of the following ten countries: Canada; United Kingdom; Singapore; The Philippines; India, Hungary; Ukraine; Jamaica; Bahrain; and Zimbabwe. The “system maps” are presented along with brief and detailed discussions of the strengths, weaknesses and challenges facing each country. The maps contain the following information:

- (i) Primary sources of LMI (mainly specific to HRD).
- (ii) Information analyses practices (what tangible information products are produced and who is responsible?)
- (iii) Information sharing practices (who are the information customers?).

Chapter 3 provides a synthesis or discussion of the main findings of the research. It identifies common trends or what can be termed good practices in the development and use of LMI for HRD policy and programme planning.

Last but not least, Chapter 4 concludes the review by offering some strategies on how the barriers to the development of LMIS and use of LMI can be overcome.

# CHAPTER 1

## EVOLUTION OF LABOUR MARKET ANALYSES APPROACHES

*With HRD at the centre stage of development priorities, the presence of comprehensive and well co-ordinated Labour Market Information Systems could richly contribute to the formulation and implementation of national and sectoral policies and programmes on employment and manpower development.*<sup>4</sup>

### 1.1 Introduction

This chapter traces the evolution of Labour Market Analysis, which is an alternative approach to conventional manpower planning, and discusses the application of LMI to human resources and employment planning.

### 1.2 From Conventional Manpower Planning To Labour Market Analysis

A dividing line is often drawn between the industrial (period before the seventies) and post-industrial societies (period after the seventies and stretching to the present) with regard to the need for LMI, especially for human resources and employment planning. For example, Frans Meijers argues that:

...In an industrial society, the need for information differs remarkably from that of a post-industrial society. In the former, there is little need for such information, simply because the economic situation (especially the job structure) is very stable. In the latter, the need for LMI is enormous because; a) the demand for skills/qualifications changes fundamentally, b) the demand for skills/qualifications changes constantly, c) as a result of these changes, the Vocational Education and Training (VET) system has to be managed more flexibly (ETF, 1998:74).

This period can also be compared to the planned economy period in Central and Eastern European countries for example, which stretched up to the late eighties and early nineties in some cases. During this period, almost all the employment was in the public sector and employment statistics were compiled on an exhaustive basis by a network of reporting units on a monthly, quarterly and annual basis. Unemployment was perceived as almost non-existent.<sup>5</sup>

It is not the intention here to explain what caused the structural changes in the labour markets. However, it is important to pay particular attention to the relationship between the education and training systems and the labour market, which characterised the industrial and pre-transition periods. In the industrial/pre-transition periods:

- The relationship between the education and training system and the labour market was more direct.
- Occupational structures changed very slowly and as such, the professional knowledge and skills could easily be transferred.
- Planning, even for short-term courses, could be done well in advance, and there was no need to make any projections about the future demands of occupations.
- The types of subjects and the vocational content required for specific jobs were easily identifiable.

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4 ILO (1989): Strengthening Employment and Manpower Planning and Labour Market Information Systems in Africa: Report of JASPA Regional Training Workshop.

5 Chernyshev, I (1997).

- There was little need for flexibility or to design tailor-made courses.
- The education system concentrated on abstract and theoretical knowledge as opposed to practical knowledge.
- Steady economic growth made it possible for enterprises to invest in on the job training.
- There was less necessity to assess the relevance and adequacy of the VET system because it was deemed as adequate.
- A shortage of skills could easily be translated into an increase of the number of related training institutions or student enrolments without necessarily taking into account the cost effectiveness of such measures<sup>6</sup>
- Immediate employment was generally available for those who graduated from the education and training systems.

Under these conditions, there was really not much need for detailed Labour Market Analysis or to explore different sources of LMI to guide HRD planning. The now almost defunct and conventional manpower planning approaches (Manpower Requirements and Rate of Return approaches), which placed a lot of emphasis on detailed mechanical projections on future manpower requirements, dominated the manpower planning circles. However, the shifts in employment patterns from the public sector to the private sector as a result of privatisation of formally state owned enterprises, on one hand, and from the formal economy to the informal economy on the other hand in recent years globally, impose a serious threat and challenge to the whole process of manpower planning. These shifts made it imperative for the roles of manpower planners to also shift accordingly (Richards P. and Amjad R 1994). More precisely, these changes necessitated greater need for comprehensive LMI to aid in the process of interpreting these structural shifts and designing effective HRD policies and programs, which provide for more linkages between the education and training systems and the labour market.<sup>7</sup> And also the reduction of the state as a major employment provider and the development of market economies gave impetus to the need for a different approach to manpower planning, where the results of labour market analysis as well as market based signals of supply and demand for skills are made available to the various economic agents responsible for the formulation and implementation of manpower and employment policies and programmes.

### **1.3 Labour Market Analysis As An Alternative Approach to Conventional Manpower Planning**

Labour Market Analysis can be defined as the measurement and evaluation of economic and demographic forces as they relate to the education and training process on one hand, and the employment process on the other hand. Such economic forces include, but are not limited to; labour force changes and characteristics, population changes and characteristics, industrial structure and development, technological developments, shifts in consumer demands, wage levels, recruitment practices, conditions of employment and training opportunities.<sup>8</sup> Labour Market Analysis:

...looks into the decision making practices of the various actors in the labour market, both regarding manpower supply and demand and to cast light on the influences facilitating or impeding their decision making...It takes a close look at the effectiveness of running manpower and employment policies and programs, both for monitoring and the identification of better alternatives and options (Richter, L 1989:28).

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<sup>6</sup> Sparreboom, T. (1999).

<sup>7</sup> See Annex 1 for the elements of the three contrasted approaches to Human Resources Planning.

<sup>8</sup> [www.wa.gov/esd/ui/rcw5038.htm#015](http://www.wa.gov/esd/ui/rcw5038.htm#015)

Three main aspects of Labour Market Analysis can be distinguished:<sup>9</sup>

**1.3.1 Labour Market Signalling:** Labour market signals convey warnings of important new developments in the labour market or confirm trends previously observed. Labour market signalling is a vital output of LMI especially for those with immediate decision-making and daily operational responsibilities. One of the criticisms that has been levelled against signalling is that it has produced large amounts of data, which are often partial, unreliable, outdated and devoid of analysis.

**1.3.2 Analysis of Labour Market Functioning and Processes:** This involves in-depth research to try and reveal the dynamics of labour market functioning. Labour market research probes more deeply into medium and long term indicators, their determining factors as well as their inter-relationships. However, one of the shortcomings of labour market research has been that it has mainly provided results of academic interest and has not been of much relevance to policy and decision making processes.

**1.3.3 Monitoring and Evaluation of Labour Market Policies and Programs:** This is the systematic assessment of the impact of labour market policies and programmes on specific target groups or on the whole or part of the economy. Monitoring and evaluation is done to identify constraints or deficiencies in labour market policies and programmes and to provide useful feedback for improving the implementation of the monitored programmes as well as to facilitate the adjustment of national labour policies to labour market requirements.<sup>10</sup>

## **1.4 Users of Labour Market Information**

The principal users of LMI for human resource development and employment planning can be classified as follows:

### **1.4.1 Human Resources and Employment Planners in Government**

Senior government officials responsible for planning policies and programs that have a significant impact on human resource development and employment within a country need LMI in order to identify policies and design programs that will encourage human resource development and support employment growth over the long term. This group includes officials responsible for developing and recommending fiscal and monetary policies; national, regional and local economic development policies; government budgets; and vocational training, employment services, labour market and higher education policies and programs.

Those responsible for planning fiscal and monetary policies examine national and regional employment and unemployment trends very closely before recommending changes in government expenditures or adjustments in interest rates. During periods of declining employment, government funded capital expenditure projects are sometimes accelerated to alleviate the impact of an economic downturn. Similarly, national bank governors lower interest rates to encourage investment during economic slowdowns and raise interest rates when economies begin to overheat. In many countries statistics from monthly labour force surveys play a significant role in the determination of fiscal and monetary policies.

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<sup>9</sup> See for example Grubb N.W and Ryan P 1999.

<sup>10</sup> This element is however lacking in the majority of countries.

Economic development planners require an extensive amount of information about national, regional and local labour markets. For example, policies designed to encourage the growth of high technology industries must take into account the current and anticipated availability of highly qualified workers. Similarly, decisions concerning the timing of the construction phases of major industrial projects and large publicly funded infrastructure developments should be based on occupational supply and demand information that allows planners to time these projects so the demand for particular types of skilled tradespersons does not peak at the same time with more than one project.

Senior officials involved in the overall planning of government budgets need economic, demographic and labour market information to help them monitor the changes taking place within the jurisdiction covered by the particular budget in question. By using labour market information in conjunction with information on general economic and demographic trends, they are better able to determine the reasons behind population movements and the impact these shifts may have on the need for expanding or reducing certain types of infrastructure development programs as well as other government programs and services. In many cases, labour market information provides an early signal that workers and their families are moving into or out of a region in response to growing or declining employment opportunities.

Government planners rely on labour market and employment information to help them determine the need to establish, expand or reduce the size of vocational training programs generally or within a specific area. If a particular industry begins to exhibit above average expansion or contraction, there may be a need to adjust the size of the training programs for skilled workers for that industry. In other cases, the technology an industry uses may change dramatically thus creating a need for different skills and training for such workers. These kinds of decisions must be made as they relate to training programs within a region generally as well as at the local level. Sometimes, the size and nature of a training program within a local area is based on the availability of potential trainees while the employment opportunities for graduates are in another area or even another region. In these circumstances, planners require both local and regional LMI.

Labour market policy and program planners rely very heavily on labour market information to develop policies and plan programs that support such important issues as workforce mobility, work experience, industry-based training and social inclusion for specific target groups such as women, youth, migrant workers and disabled people, as well as in promoting gender mainstreaming. Workforce mobility program planners need LMI that will help them to determine the types of workers that need to be brought in when the economy of an area is experiencing acute skill shortages and local training programs cannot meet the demand for skilled workers. On the other hand, when a major employer in a local area goes out of business, workforce mobility planners need to know the kinds of skills and experience displaced workers possess so they can be placed with employers in other areas. Planners designing industry based training programs need information on the various industries and occupations within those industries that may benefit from industry based training. Those planning programs for specific target groups such as women, youth, migrant workers and disabled people need information on the characteristics of the individuals within these groups as well as information on career counselling, work experience opportunities and training possibilities that might be available to members of these groups.

Higher education planners make reference to demographic and labour market data when they develop policies related to the number, types and locations of higher education institutions as

well as policies on such matters as funding levels and tuitions fees. Funding levels, tuitions fees and student support programs also need to be reflective of the changes taking place in the labour market.

### **1.4.2 Employment Services**

In the case of employment services, labour market information plays a very important part in helping planners to determine where employment services should be provided, the clients these services should serve and the types of services that should be offered. Since agencies providing employment services serve both employers and job seekers, their location and size as well as the nature of the services they provide must take into account the number of potential clients in an area, the training programs offered and the employment opportunities available. If there are a significant number of employers and employment opportunities in an area the agencies will need to have the resources to deal with such a situation. Conversely, if there are a large number of job seekers in an area, there will be a major call for counselling and career development services, placement services, mobility services, pre-employment training programs, work experience programs and industry based training programs.

Employment services managers need general information on vacancies, job seekers, changes in skill and occupational requirements, career prospects in various industries and occupations, and education and training programs in planning for employment services delivery. Employment services placement staff need rather specific information on both job vacancies and job seekers to be able to successfully match vacancies with job seekers. As far as job vacancies are concerned, they need to know the location, title, description, skill and experience requirements, remuneration levels and working conditions associated with each vacancy. In the case of job seekers, placement staff requires specific information on each individual's education, training and work experience. This information allows the staff to select the appropriate occupational codes for each vacancy and each job seeker so that matching can take place.

Vocational guidance and career counsellors need occupational outlook information that provides them with a sound understanding of changes taking place in the occupation and skill requirements of the labour market. In addition, they need access to information on the location, timing, entrance requirements and availability of education and training programs. This type of information can provide guidance and counselling staff with insights and information that allow them to help clients make and pursue realistic career choices.

### **1.4.3 Educational and Vocational Training Institutions**

These institutions need to get information on labour market trends, skill requirements of the economy, technological changes and how they affect skills development, programs offered by other (competing) institutions, etc, to be able to develop and run programs efficiently. The curricula and the types of programs these institutions offer have to be adjusted on a regular basis so that graduates from these institutions have the appropriate and relevant skills for an ever-changing marketplace.

The planners and program developers in educational and vocational training institutions use information on labour market trends and the anticipated impact of technological changes on future skill requirements to help determine the kinds of programs to offer and the number of students to accept in each program. Guidance counsellors in these institutions use the results

from graduate follow-up (tracer) studies along with information on anticipated skill requirements to help students make decisions concerning the particular educational and vocational training programs they should pursue.

#### **1.4.4 Employers and Employees Organisations**

They both need LMI on availability and demand for labour and the skill composition of the workforce, training opportunities, productivity, wage levels, working conditions, collective agreement settlements, labour regulations governing collective bargaining, health and safety issues, as well as career patterns of different jobs and occupations. This information is needed by employers to guide their personnel policies, collective bargaining strategies, the timing and size of their investment decisions as well as training and retraining policies. Also employees and their respective employee organisations need information on the likely changes in job markets to plan their collective bargaining strategies.

#### **1.4.5 Students and Job Seekers**

Students and job seekers need LMI to help them develop career plans, make career choices, obtain information about training opportunities and find jobs. Students use LMI to gain a better understanding of the current and future skill requirements of the labour markets so that they can make appropriate education and training decisions. They are especially interested in finding specific information about the educational and skill requirements of various occupations as well as the location, programs and entrance requirements of education and training institutions. Job seekers are particularly interested in obtaining information about the location of job vacancies as well as the educational and skill requirements of these job openings.

### **1.5 What Policy Questions Does LMI Seek to Answer in Respect to HRD?**

It is critical to note that the usefulness of LMI depends on the ability of the concerned institutions and agencies to differentiate between accumulation of information and its effective use in policy planning and decision-making processes. Why information is collected, and the usefulness to which it is put, is very important. The starting point is to define the policy gaps that LMI is supposed to fill, and this is where Labour Market Analysis plays a vital role. Labour Market Analysis is supposed to convert raw data into information that addresses specific policy questions. To borrow Chernyshev's words:

A useful information system is one that provides the job seeker as well as the policy maker with information to assess the state of the labour market from their respective perspectives...it takes labour market statistics and other relevant facts and information, and converts them into answers to questions posed by decision makers at all levels of the labour market.<sup>11</sup>

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11 Chernyshev I (1998: 476)

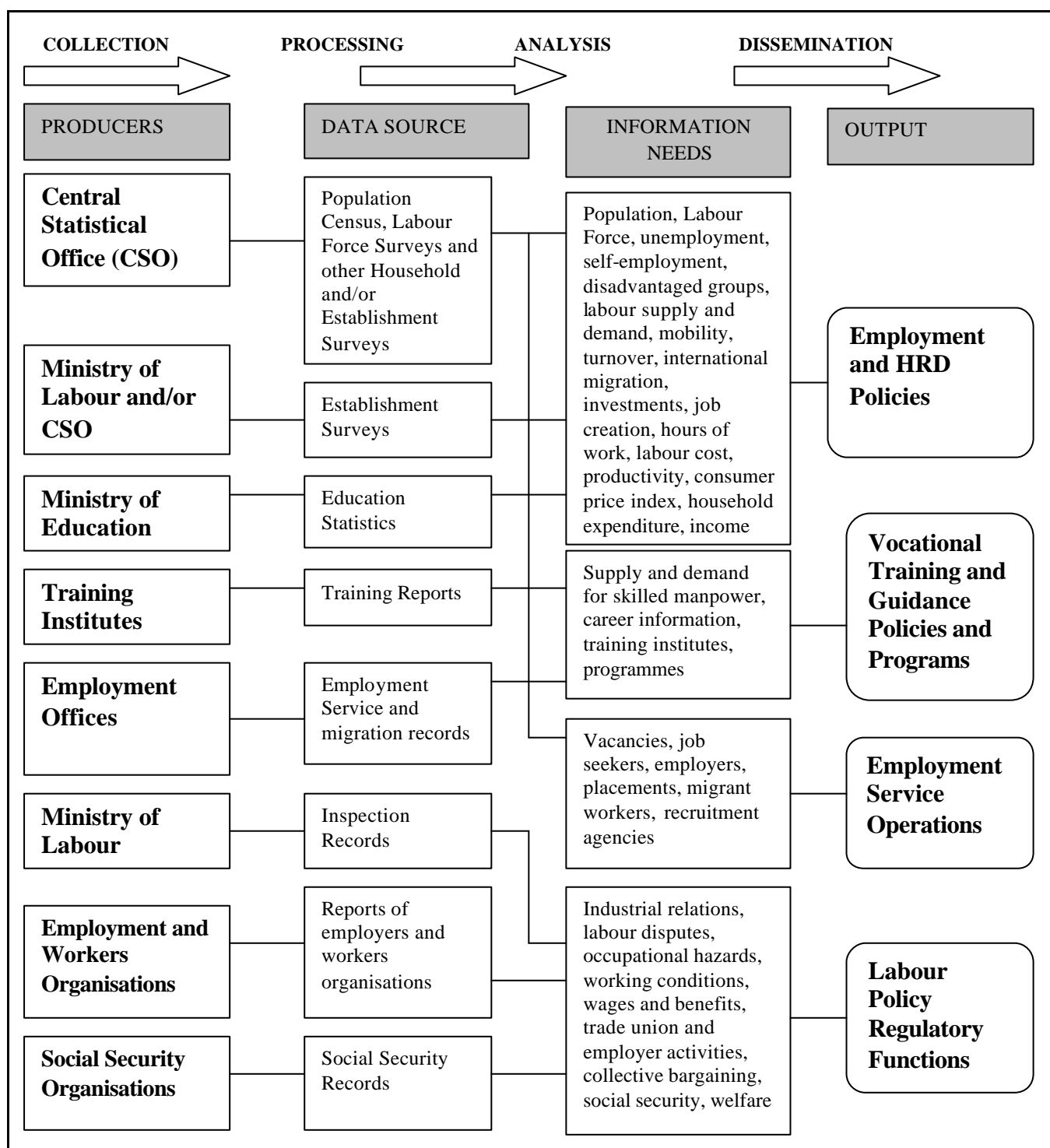
**Table 1: What Questions Does LMI Seek to Answer?**

<b>What Do Policy Makers and Program Administrators Want To Know?</b>	<b>Usefulness of Information</b>
How have occupational patterns and skill structures changed in response to shifts in the industrial composition, technological advances and other labour market changes?	-Information can assist in the formulation of broad employment and HRD policies at national levels. -Information helps to shape companies` recruitment and promotion policies.
What are likely to be the skill areas to experience an increase or decrease in importance and what are the implications for the design and content of training and retraining programs?	-This makes it possible to reform the education and training systems so that they respond positively and swiftly to the changing needs of the economy. -The Information is important for shaping career policy.
How have past trainees fared in the labour market and what is the implication of their experiences for future programming of training courses?	-Tracing the career patterns of new entrants in the labour market is a legitimate, highly instructive and informative source of evidence on the general receptiveness of employers to educational programs. -Information can be used to design curriculum that is reflective of the needs of the labour market.
What is the likely impact of proposed policy measures on job creation, enterprise restructuring and job destruction on training and training policies and programmes?	-Information can assist in the formulation of broad employment and HRD policies at national levels. -This makes it possible to assess national progress in terms of skills development and formation.
What is the likely impact of these changes on specific target groups, i.e.; women, youth and the disabled?	-Information assists in designing targeted interventions.
How can education and training systems be fine-tuned or reformed to produce a workforce flexible enough to meet the demands of an increasingly dynamic work environment?	-Such information serves as a basis for developing new education and (continuing) training provision at sectional and regional levels for entire vocational training systems or areas thereof, and its objective is to adapt them to meet changing technical, social and cultural challenges.
Who should benefit from training and what are the likely employment opportunities for which these target groups will be trained?	-This is targeted intervention, which reduces targeting errors and also makes evaluation of the impact of education and training programs possible.

### **1.6 What Information Is Needed To Plan For HRD Policies and Programs?**

The LMI needed for policy development and program administration comes from various sources and different organisations are involved in the collection and dissemination of this information. The generation and flow of LMI from producers to users is clearly illustrated in Figure 1 below. Though the figure is very clear and explicit in format and style, it should be noted that challenges exist at each stage of the information flow, and as will be demonstrated later on, countries are at different stages in dealing with these challenges.

**Figure 1: Generation and Flow of Labour Market Information.**



The figure shown above was adapted from ILO (1992:3).

But what information is needed for human resources and employment planning? This question has not been answered yet. In order to come up with comprehensive human resources and employment policies and programmes, that are able to address the needs of the changing labour market, the following information is regarded as of paramount importance.<sup>12</sup>

<sup>12</sup> European Training Foundation (1998:4)

1. Information on the demand for different occupations and their changing work content.
2. Information on occupations that are disappearing and emerging as a result of technological changes and structural changes in an economy.
3. The employability and career opportunities of young persons entering the labour market, that is; information on the school to work transition.
4. Future skill requirements of the economy.
5. Recurrent manpower shortage areas and analysis of the causes and consequences of such occurrences.
6. Information on workplace learning as well as other forms of skills development practices, i.e.; participation and investments in training.
7. Information on the likely effects of economic as well as other policies on specific target groups, i.e.; women, youth, migrant workers and disabled people.

While the above brief descriptions of the kinds of information that are needed for human resources and employment planning appear to be quite straightforward, this is not the case. In fact, each of these items requires gathering data from a variety of sources, analysing and synthesizing the data and interpreting and presenting it in a form that can be used for planning and policy development purposes.

Information on the demand for workers in specific occupations and the changing content of these occupations has to be developed using data from several sources. For example, the baseline data on occupations is usually gathered along with other demographic and labour market data when a general census of the population is conducted. This basic data is then projected to represent the current labour market situation using the industry and occupational data available from household based labour force surveys and/or industry based establishment surveys. Job vacancy data, another component of labour demand, can be collected from employers or obtained from employment services organizations.

As far as the changing content of occupations is concerned, this type of information is gathered when dictionaries of occupations are compiled and when training institutions, in consultation with industry experts, develop or update curricula for their training programs. Sometimes a certain amount of this type of information is gathered when surveys of wages and working conditions are conducted.

Information on occupations that are disappearing or emerging as a result of technological changes and structural changes in an economy can be gathered as part of more broadly based establishment surveys or special studies designed to obtain this specific type of information. Occasionally what appears to be a new occupation or a disappearing occupation is merely a changing job title rather than a changing position description.

Information on the school to work transition that shows the employability and career opportunities of young persons entering the labour market can be obtained using student follow-up (tracer) studies. In some cases longitudinal studies are carried out to trace the movements of a particular group of graduates and dropouts in order to gain a better understanding of their movements into and out of various types of employment over a sustained period of time.

Future skill requirements of the economy are identified by gathering information from a variety of sources to determine historical trends and utilizing various techniques to predict future requirements. The methods used to predict future skill requirements can range from

basic projections that take into account the changing industrial and occupational composition of a country's workforce to the use of sophisticated econometric models that consider such things as changes in investment, productivity, output by industry and the effect of changing technology on the occupational mix within specific industry groups. Neither method produces exact results but both provide at least an indication of the kinds of skills that will be most needed in the future and the types that will not be as highly demanded.

Identification and analysis of the causes and consequences of recurrent manpower shortage areas requires data from employers, training institutions and government managers responsible for mobility and immigration programs. The data from employers would include information on vacancies, wages and salaries, working conditions and recruitment practices. Training institutions could provide information on, for example; applications, enrolments, graduations, dropouts and follow-up results for students in programs that train workers to fill jobs experiencing recurrent manpower shortages.

Gathering information on participation and investments in training is particularly important for HRD policy planners as they develop comprehensive strategies on lifelong learning, which promotes and recognises learning that goes beyond initial education and training. Such information becomes relevant, especially considering the diversified ways through which individuals acquire skills, knowledge and competencies (formal, non-formal and informal learning).

Information on the likely effects of economic policies, as well as other policies, on specific target groups such as women, youth, migrant workers and disabled people is usually obtained by undertaking special studies to gather, analyse and interpret both the quantitative and qualitative data that is available in administrative files.

## **1.7 Conclusion**

This chapter has discussed some of the current issues in employment and human resources planning. The different users of LMI and the type of information they need in order to fulfil their mandates have also been identified. It has also been demonstrated that Labour Market Analysis, which is an alternative approach to the conventional approaches to manpower planning, places a lot of emphasis and importance on timely collection, analysis and dissemination of LMI to guide the overall policy and decision making processes. As will be shown in the next chapter, what distinguishes more advanced from less advanced Labour Market Information Systems is the capacity to generate, analyse and disseminate LMI from a variety of sources to benefit a broad spectrum of users.

## CHAPTER 2

# CURRENT PRACTICES IN LABOUR MARKET INFORMATION SYSTEMS DEVELOPMENT

*Capitalise on that which exists and absorb that which is most advanced and adaptable.*<sup>13</sup>

### 2.1 Introduction

This chapter provides an overview of the current practices in the generation, analysis and dissemination of LMI in a sample of developed, transition and developing countries already identified. The selection of different countries at different stages of development and with different levels of resources is intended to assist readers to appreciate what is realistically achievable, and what is not. Documented evidence and in-house consultations on country experiences with LMI were the two main strategies used to identify the sample of countries that have been selected here. A uniform format of presentation and description is used to aid in making comparisons. An attempt is also made to identify only those sources and types of information that could be of relevance for human resources and employment policy and programme planning. And also, while the experiences of these countries with LMI differ significantly, it is still possible to identify common trends and also to derive lessons from the different experiences.

A Labour Market Information System in this context can be defined as a set of institutional arrangements, procedures and mechanisms that are designed to coordinate the collection, processing, storage, retrieval and dissemination of Labour Market Information<sup>14\*</sup>

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13 Chernyshev I, 1997:50.

14 Sparraboom, T. 1999.

\* See also annex 3 for the ingredients of a LMIS.

## 2.2. Canada

Sources of Information		Information Analysis		Information Sharing
Data Source (i)	Producer Organisation (ii)	Information Product (iii)	Producer organisation (iv)	Information Product users (v)
Quantitative and qualitative information from various sources	Various organisations	National Online Information System (www.hrhc-drhc.gc.ca) <sup>15</sup>	Human Resources Development Canada (HRDC)	The Employment Programs Branch (EPB) Forum of Labour Market Ministers (FLMM) Labour Mobility Coordinating Group (LMCG) Applied Research Branch of HRDC Canadian Labour Force Development Board Youth Service Canada (YSC) Provincial Ministries responsible for Education, Skills and Training, Employment, Labour and HRD Employers, Training Providers, NGOs concerned with HRD, Independent Researchers, etc.
Canadian Occupational Projection System (COPS)	HRDC	Occupational Profiles and Forecasts in Job Futures Volume 1 <sup>16</sup>	HRDC	
The National Graduate Survey	Statistics Canada.	Job Futures Volume 2	HRDC	
Labour Force Surveys(LFS)	Statistics Canada	-Labour Force Survey Reports -Job Futures	Statistics Canada	
Wages and Salaries Survey	Statistics Canada	Occupational Profiles	HRDC Regional Offices	
Census Data	Statistics Canada	Occupational Profiles	HRDC Regional Offices	
Administrative Data <sup>17</sup>	HRDC Regional and Local offices	-Labour Market Review -Labour Market Bulletins -Labour Market Reports -Community Profiles	HRDC Regional and Local Offices	
Industry Sector Studies	Sectoral and Occupational Studies Division (SOSD) in partnership with Industry Canada	Industry Profiles	HRDC	
Essential Skills Research Project (ESRP)	HRDC	-Occupational Profiles -Essential Skills	HRDC	

15 This web site pulls together information collected by HRDC as well as from other producers/sources and also provides web links to these other producer organisations and sources.

16 Work on the fourth edition in progress.

17 Administrative data on occupational demand, i.e.; from job orders, foreign worker requests and employment insurance data. Also complemented by employers' surveys and data from other sources.

## **State of The Labour Market Information System In Canada**

A computerised National Labour Market Information System exists, which provides general and detailed information on local labour markets across Canada. Human Resources Development Canada (HRDC), under the Ministry of Human Resources Development is at the helm of the LMIS in Canada. It has a network of 10 Provincial/Regional Offices and more than 320 local offices across the country from where its services can be accessed. Local Offices are referred to as Human Resources Development Centres. These centres are one stop shops which offer a wide assortment of on line self services to employers, job seekers, students, potential entrepreneurs, the retrenched and the retired, etc. These offices are closely networked and computers with Internet access are available for use freely by different users. The **National HRDC Labour Market Information Site**<sup>18</sup> provides information on occupations, job seekers, industry sectors, and the changing nature of the world of work and current labour market trends. Each Provincial/Regional Office generates information on, for example:

**Occupational Profiles:** These contain information on educational requirements, terms and conditions of employment, training availability, wages, potential employers, etc. The main sources of this information include: the National Occupational Classification (NOC) System (Occupational Descriptions and Career Handbook), Census Data, Employer Surveys, government departments and Training Institutions.

**Labour Market Reviews:** These are annual reports that provide a year-to-date analysis and interpretation of influences on the local labour market. They contain information on employment legislation, projected layoffs, employment trends, major economic activities, skill shortage areas and major employment projects.

**Labour Market Bulletins :** These are monthly or quarterly updates on labour market activities in the HRDC Districts.

Three key LMI sources in Canada:

**(a) The Labour Force Survey:** This is Statistics Canada's monthly snapshot of the labour market across Canada.

**(b) The National Occupational Classification (NOC):** The NOC replaced the Canadian Classification and Dictionary of Occupations (CCDO) in 1992. It is a systematic taxonomy of occupations, which contains over 500 groups of occupations and over 25,000 job titles. The NOC is intended for use in compiling, analysing and communicating information about occupations. Occupational Information serves a number of purposes such as in measuring employment equity, human resources planning, occupational safety and demand analysis, the provision of career information and many other programs related to employment services.

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<sup>18</sup> <http://www.hrdc-drhc.gc.ca>

**(c) Job Futures:** This report is published by Human Resources Development Canada. It combines data from the Labour Force Survey, the census, and other sources, on the most common occupations. For many occupations, it shows average full-year earnings, earnings of the highest paid 10 percent of workers, the lowest 10 percent, and the percentage of the workforce that is employed part time. The National Job Futures volumes are available both in print and electronic format.

(i) Job Futures Volume 1

Puts together information for about 200 occupational groups, including statistical data and descriptive and analytical text. It also provides information on the current and future labour market situations for specific occupations. An attempt is made to include the views of employers about the projections, whether negative or positive. The Canadian Occupational Projections System (COPS) and other forecasting tools are used by HRDC specialists in making manpower decisions.

(ii) Job Futures Volume 2

Focuses on the link between the educational system and the labour market through analysis of the labour market outcomes for graduates from some 100 fields of study at the post-secondary level. This is crucial information to use in the career planning process.

To complement its efforts to generate specific information to guide the decision-making processes on HRD policies and programmes, HRDC established an Applied Research Branch in 1994. This branch is responsible for generating policy-relevant research to guide HRDC's development of creative solutions to labour market, employment, human capital development, income security, social development, labour adjustment and workplace innovation issues and problems.

### **Major National Labour Market Research Outcomes<sup>19</sup>**

**(i) Essential Skills Research Project (ESRP):** launched in 1994 by HRDC with the main objective to examine how essential skills were used in various jobs. The information generated is useful in areas such as: Counselling and Career Services planning and provision, Professional Development for Teachers, Skills Assessment and Recording/Portfolio Development, and Planning of School to Work Transition Programmes. This information is also used in occupational profiles.

**(ii) National Occupational and Skills Standards :** describes the skills and knowledge needed to perform competently in the workplace. Occupational skills standards are used in educational planning, they also help in the design of structure and content of education and training

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<sup>19</sup> It is interesting to note that the results of these labour market research studies are available in both print and electronic format. The adequacy, relevance and timeliness with which LMI is made available to users in Canada makes it a very useful tool in the policy formulation and decision-making processes.

programmes and assist educators and trainers to give learners the skills and abilities that an industry requires as well as helping workers and employers determine their unique training needs.

**(iii) Sector and occupational studies:** In these studies, investigations are done on the current and future human resources development needs, issues and challenges facing a particular industry or occupation, such as the supply and demand of skilled labour, the impact of changing technology, the need for skills upgrading and the adequacy of existing training.

**(iv) Industry Profiles:** The profiles examine how the changing economic environment, and general trends in research and development and technology, affect the labour force employed in an industry. Some major human resource issues covered in past sector studies include: identification of the gaps between current skills and emerging skill requirements, career progression and mobility, workforce profile/characteristics and changes in workplace organization, training and professional development requirements, technology innovation/adoption, and human resource management practices.

For manpower and employment planners, industry profiles serve the following purposes:

- A better understanding of the industry and its needs.
- Improved linkages and communications with industry clients.
- Greater relevance of education and training programmes to industry needs.
- Improved standardization of programs and program accreditation.
- More efficient use of resources with less duplication of effort.
- Recognition of innovative training initiatives.

### **Standards For Electronic Labour Market Information**

The Canadian Labour Force Development Board, through its National Advisory Panel on Labour Market Information developed standards for Electronic Labour Market Information (ELMI). These are key performance indicators or measures of the success of information delivered electronically. The standards are specific measures that can be used to determine the extent to which LMI distributed meets adopted guidelines. These guidelines include the following; type and level of detail of information, when certain information is required, sources of information, end users of information, costs of gathering, processing and distributing the information. It is largely because of the existence of these standards that Canada is able to make an assessment and evaluation of the usefulness of its Labour Market Information System.

## **Major Challenges**

Canada has a comprehensive information system in place. The main challenge it faces is to develop targeted labour market programmes based on the assessed needs and requirements of the labour market.

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## **Sources**

Employment and Human Resources Development: Information Base on National Policies and Experiences (ILO CD-Rom, Nov 2001).

[www.hrhc-drhc.gc.ca](http://www.hrhc-drhc.gc.ca)

<http://workinfonet.bc.ca/lmisi/Making/chapter5/NATLMI1.HTM>

<http://www.statcan.ca>

## 2.3 United Kingdom

Sources of Information		Information Analysis		Information Sharing
Data Source (i)	Producer Organisation (ii)	Information Product (iii)	Producer organisation (iv)	Information Product users (v)
Quantitative and qualitative information from various sources	Various organisations	National Online Information System (www.dfes.gov.uk) <sup>20</sup>	Department for Education and Skills (DfES) <sup>21</sup>	Department for Education and Skills Regional Development Agencies (RDAs) Learning and Skills Councils (LSCs), Qualifications & Curriculum Authority (QCA) National Council for Vocational Qualifications (NCVQ) School Curriculum and Assessment Authority (SCA) National Training Organisations (NTOs) Employment Services, Sector Skills Development Agency, and many other organisations concerned with human resources policies, programs and evaluation.
Various Sources, i.e.; Labour Force Surveys, Establishment Surveys, official projections and registers and survey of educational participation and attainment.	Various organisations	<a href="http://www.dfes.gov.uk">www.dfes.gov.uk</a>	DfES	
		Labour Market and Skills Assessment/Trends (annual publication) <sup>22</sup>	DfES` s Skills and Enterprise Network	
		Skills and Enterprise Network Briefing	same	
		Skills and Enterprise Network Executive (quarterly publication)	same	
		Skills and Enterprise Network Labour Market Quarterly Report	same	
Skills and Enterprise Network Update (quarterly digest)	same			
Various published and unpublished statistical data	DfES	DfES Statistical Bulletin	DfES	

<sup>20</sup>This web site pulls together information collected by DfES as well as from different producers/sources and also provides web links to these sources and different producer organisations.

<sup>21</sup>Formerly Department of Education and Employment (DfEE).

ONS databases and surveys	Office for National Statistics (ONS)	Labour Market Trends (monthly bulletin based on official surveys and databases) Labour Force/Household Survey Reports Labour Market Statistics Guide to Labour Market Statistics	Office for National Statistics (ONS)	
DTI Foresight Database	Department of Trade and Industry (DTI)	<a href="http://www.dti.gov.uk">www.dti.gov.uk</a>	DTI (Foresight Program)	
Index of Deprivation database	Department of Transport, Local Government and the Regions (DETR)	<a href="http://www.detr.gov.uk">www.detr.gov.uk</a>	DETR	
Survey Data	Association of Graduate Recruiters (AGR)	Survey of Graduate Recruiters (twice a year)	AGR	
Graduate follow-up/Tracer studies	Higher Education and Statistics Agency (HESA)	First Destinations of Students Leaving Higher Education Institutions	HESA	
Administrative records (maintains a database on annual admissions statistics)	Universities and Colleges Admission Services for the UK (UCAS)	UCAS Statistical Tables Report <a href="http://www.ucas.ac.uk">www.ucas.ac.uk</a>	UCAS	
Database	Institutional Planning Service (IPS)	Customised data tailored to particular user needs	IPS	

22 All publications of the Skills and Enterprise Network are free of charge.

Mainly from Administrative Records	Income Data Services (IDS)	Pay and Progression for Graduates (annual report)	IDS	
Various sources	Career Services Unit (CSU)	Graduate Market Trends (free quarterly publication) also available through CSU website: www.prospects.csu.ac.uk	CSU	
Graduate Destinations Survey	Institute of Employment Studies (IES)	Annual Graduate Review	IES	
Database	ONS	Regional Profiles containing relevant data (including) labour market data) for the region	ONS	

### State of The Labour Market Information System In The United Kingdom

A very important feature of the UK LMIS is the Labour Market Information Database (Skills Base). This database was set up by the DfES in collaboration with the University of Warwick and Cambridge Econometrics. Its major aim is to provide a one stop source of information for Labour Market Analysts and Researchers, and more importantly, to improve availability of LMI to Regional Development Agencies, Learning and Skills Councils, National Training Organisations and other organisations concerned with planning and implementation of HRD policies and programmes. The Skills Base makes it possible for various organisations to share information on their different activities relating to human resources development. This not only enriches labour market outcomes, but also ensures efficient use of resources and avoids duplication as much as possible.

The LMI database web has 4 very important sections as follows:

- (a) Narrative section:** This is designed to give non-specialist users a succinct insight into skills trends without the need for carrying out analysis themselves.
- (b) Database section:** This is a comprehensive source of LMI, education and skills data aimed in particular at those users who analyse statistics and interpret data regularly.

**(c) Reference section:** This includes a library page with many skills related reports, available for download.

**(d) Inforum section:** It provides a chat room and bulletin board to promote discussion about labour market and skills related information.<sup>23</sup>

### **Dissemination of Information**

LMI is disseminated through print and electronic media. For example, with the DfES` Skills and Enterprise Network, a mailing list is maintained for government agencies, private institutions and all those concerned with HRD. They receive all publications. A telephone directory is provided at the end of each publication, and also on the Internet, which shows where to get each type of information. However, for the other paid publications chances of finding their way through to the intended audience are not as good as those, which are free.

### **Major Challenges**

There are a number of organisations that are involved in production and use of LMI for skills development, which have not been included in the table above. These include regional and local sources of LMI. A common problem arises when these fail to compare local findings from research done with few resources, to national findings, often done with a large amount of resources.

A lot of emphasis is placed on tracer/graduate follow-up studies to evaluate the labour market impact of educational programs. With the diminishing predictive capacity of long term career destinations, some critics feel that six months is too short a time to determine the usefulness of training received to a graduate who nowadays often takes 2 to 3 years, or even more, before establishing himself/herself in the labour market.

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### **Sources**

Skills and Enterprise Network (2000): Labour Market and Skills Trends (DfES Publication)

DfES (2001): Education and Skills: Delivering Results, A Strategy to 2006

Employment and Human Resources Development: Information Base on National Policies and Experiences (ILO CD-Rom, Nov 2001).

[www.dfes.gov.uk](http://www.dfes.gov.uk)

<http://www.skillsbase.dfee.gov.uk>

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<sup>23</sup> [www.skillsbase.dfes.gov.uk](http://www.skillsbase.dfes.gov.uk)

## 2.4 Singapore

Sources of Information		Information Analysis		Information Sharing
Data Source (i)	Producer Organisation (ii)	Information Product (iii)	Producer organisation (iv)	Information Product users (v)
Quantitative and qualitative information from various sources	Various organisations	<a href="http://www.mom.gov.sg">www.mom.gov.sg</a> <sup>24</sup>	Ministry of Manpower (MOM)	The main users of LMI are: -Ministry of Manpower -Ministry of Trade and Industry -Ministry of Education -National Trades Union Council (NTUC) <sup>25</sup> -The Singapore National Employers Federation (SNEF) <sup>26</sup>  Economic Agencies, such as: -Economic Development Board, -The Productivity and Standards Board
Quarterly Labour Force Surveys	Manpower, Research and Statistics (MRSD)	Quarterly Reports on the Labour Force Surveys	MRSD	
Quarterly Labour Market Surveys	MRSD	Quarterly Labour Market Report	MRSD	
Annual Economic Surveys	Singapore Department of Statistics	Economic Survey Series	Singapore Department of Statistics	
Survey on Annual Wage Changes	MRSD	Report on Wages in Singapore	MRSD	
Various Data Sources (see below)	-MRSD -Singapore Department of Statistics	The Employment Trends and Outlook 2001	Manpower Planning Department and its Partners	
Annual Labour Cost Survey	MRSD	Labour Cost Survey Report	MRSD	

24 This web site pulls together information collected by Singapore's MOM as well as from different producers/sources and also provides web links to these sources and different producer organisations.

25 The NTUC runs the Skills Redevelopment Programme (SRP), which was launched in 1996.

26 The SNEF runs the SNEF Training Institute, which offers short-term training courses including workshops and seminars aimed at developing the skills of executives, managers and support staff.

27 Restructured from the Vocational and Industrial training Board (VITB) in 1992.

28 Set up in 1980 to spearhead the use of IT in Singapore.

Annual Job Vacancy Survey	MRSD	Job Vacancy Reports	MRSD	Tertiary Institutions like for e.g.; -The Institute of Technical Education <sup>27</sup> -National Computer Board (NCB) <sup>28</sup>
National Survey on Adult Training, 2000	MRSD	Adult Training, 2000 Report	MRSD	
Establishment-Based Training Survey	MRSD	Employer Supported Training Survey Report	MRSD	
Annual Survey on Conditions of Employment	MRSD	Conditions of Employment Report	MRSD	
Annual Survey on Occupational Wages	MRSD	Report on Wages in Singapore	MRSD	
Annual Survey on the Implementation of National Wages Council Recommendations	NTUC	National Wages Council Wage Guidelines for 1999 - 2000	National Wages Council	
Annual Surveys of producers of LMI	Singapore Department Of Statistics (DOS)	A Guide to Singapore Official Statistics <sup>29</sup>	DOS	
From Administrative Records	MOM	Monthly Employment Statistics Quarterly Graduate Employment Statistics Quarterly Re-employment Statistics	MOM	

<sup>29</sup> Contains an annotated biography of official statistical publications and is updated every 2 to 3 years.

## State of The Labour Market Information System in Singapore

The Ministry of Manpower (MOM), which came into being in 1998 as a result of a major restructuring exercise of the then Ministry of Labour is responsible for co-ordinating the LMIS in Singapore. It is also responsible for the overall co-ordination of manpower planning, development and management activities in Singapore. Its Manpower Planning Department (MPD) is tasked with the manpower planning function. It performs three main roles:

- Manpower forecasting and analysis of employment trends
- Formulation of policies
- Collection and dissemination of LMI.

Singapore's manpower planning strategy is strongly built on the principle of tripartism, which means that the social partners are jointly responsible for the successes and failures to be derived from manpower policies and programmes. The government mainly plays a coordinative and facilitative role through the provision of timely and accessible labour market information and analysis.

In August 1999, Singapore launched The Manpower 21, which is a strategic blueprint policy framework to guide the process of manpower development. This was a result of joint effort between the MOM, the NTCU, educational institutions, as well as representatives of industries and community groups. This strategic manpower vision has received full support from the government and the total commitment of all the stakeholders who have agreed to uphold the objectives of Manpower 21 and work towards their attainment. The Manpower 21 has in total 41 Recommendations, and each of them clearly specifies the partner agencies responsible for the execution of each. Of particular interest in this policy framework are the first two recommendations. In the first recommendation:

Singapore seeks to establish an enhanced Manpower Information System to provide relevant labour market information to policy makers, employers, training providers and individuals to enhance manpower planning and policy formulation and to facilitate an efficient labour market.

And in the second recommendation:

To Establish National Manpower Council, chaired by the Minister of Manpower to set strategic directions and oversee national manpower planning, development and augmentation strategies and targets.<sup>30</sup>

Thus, at the helm of the manpower planning framework is this tripartite body, whose other members include the Minister of Trade and Industry, Minister of Education, and Communication and Information Technology, Singapore National Employment Federation, National Trade Union

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<sup>30</sup> [www.gov.sg/mom/m21/s1recom.htm](http://www.gov.sg/mom/m21/s1recom.htm)

Congress and representatives from economic agencies and government ministries. The Manpower Planning Department is the secretariat to the NMC.

### **Major Producers of LMI**

The production and analysis of LMI in Singapore is aimed at satisfying the LMI needs of policy makers, industrial users, education and training institutions, public agencies like Employment Services concerned with labour market issues, as well as the general public. The major producers of LMI are the MOM, through its Manpower Research and Statistics Department (MRSD) and the Ministry of Trade and Industry, through its Department of Statistics. Other producers include, universities, research institutions, employers and employee organisations.

The MRSD generates labour statistics from a variety of surveys, i.e.; labour force surveys, establishment surveys, administrative records and research studies. Quantitative statistics collected from surveys and administrative records is complemented by qualitative information collected from interviews with industrialists through the industry visits programme.

**The Employment Trends and Outlook:** This is a major publication produced by the Manpower Planning Department (MPD) and its partners. It pulls manpower information from various sources into a single publication, serving as a one-stop reference guide on manpower statistics, issues, trends and outlook pertaining to each industry. It can also be downloaded free of charge from the Internet. This report serves as a useful reference for individuals, companies, training institutions and planners when devising manpower strategies and programmes. The main sources of information from which this publication draws are also provided in the publications, these include:

- Manpower Demand and Skills Needs Survey 1999 (MOM and its partners),
- Economic Survey Series 1998(Singapore Department of Statistics),
- Yearbook of Statistics 2000(Singapore Department of Statistics),
- Mid-Year Labour Force Survey 1999(MOM),
- Occupational Wages Survey 1999(MOM),
- Labour Market Survey 1999(MOM).

The MRSD also produces the following: the Manpower Statistics Brief, a pocket sized booklet which provides easy reference of key manpower statistics in Singapore; and the Profile of the Labour Force of Singapore (1983-1994), which outlines the labour force changes and trends in this ten year period. Various other occasional papers, such as “Manpower News” are also published.

**Manpower Planning Club:** It organises bi-monthly meetings with MOM and the relevant Economic Agencies and representatives of specific sectors. Discussions focus on manpower trends, problems and prospects in specific sectors, and these are complemented by industry visits.

**Employment Review Committee:** Meets 2-4 times a year, to review position papers affecting employment in selected sectors, as well as sectoral manpower and training needs among other issues.

**Computerised Time Series Database:** This is a Public Access Time Series (PATs) set up in 1987 by the Department Of Statistics (DOS) to enhance the accessibility of LMI to the general public. Subscribers can retrieve up-to-date statistics from various sources without having to search in different locations. Data can easily be down loaded and kept on individual PCs.

**Evaluation of LMI:** This is done by the DOS, which is the national statistical coordinator. It conducts regular surveys of public sector organisations and monitors their statistical activities.

### **Dissemination Practices**

As shown in the map above, information collected from various surveys is analysed and published in various publications. Hard copies are available at cost to members of the public and free of charge to organisations actively involved in manpower planning and development. Soft copies can be downloaded free from the Internet site of the MOM ([www.mom.gov.sg/manpower/manrs/manrs5.htm](http://www.mom.gov.sg/manpower/manrs/manrs5.htm)).

**Note:** The multi-agency collaborative approach to manpower planning adopted by Singapore shows its commitment to developing a highly competitive workforce to support its knowledge driven industries as well as provide a strategic fit between demand for and supply of labour, which is paramount to sustained economic growth. In this integrated approach to manpower planning, the MOM, seeks to ensure that the vision and goals of its partners (private sector, unions, other government agencies<sup>31</sup> as well as its international partners) are aligned to a national manpower vision. Manpower planning issues are thus examined from a totally national perspective, with an integrated and comprehensive strategy for meeting the national manpower needs in numbers and quality.

### **Major Challenges**

- The greatest challenge for Singapore's MOM is to facilitate an efficient labour market through the provision of timely and reliable labour market information, which makes it possible for policy makers, employers, training institutions, students and other labour market participants to make informed and timely labour market decisions.
- Greater efforts and resources are being committed to improving data availability through the publication of easy to read material as well as free downloads of information publications/statistics over the Internet.

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<sup>31</sup> These government agencies include, the Economic Development Board, the Productivity and Standards Board, and the Institute of Education.

- The MOM seeks to continuously improve the monitoring of the impact of structural transitions on workers, data collection on the extent of adult training and adoption of new non-standard work arrangements.
- Future interests in terms of LMI analysis and policy formulation lie in global labour market statistics e.g. on remuneration, and electronic modes of collection of both household and establishment survey data.

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### **Sources**

Inquiries from the Manpower Research and Statistics Department (MRSD),  
Ministry of Manpower, Singapore

[www.mom.gov.sg](http://www.mom.gov.sg)

[www.gov.sg/mom/m21/s1recom.htm](http://www.gov.sg/mom/m21/s1recom.htm)

[www.mom.gov.sg/manpower/manrs/manrs5.htm](http://www.mom.gov.sg/manpower/manrs/manrs5.htm)

## **2.5 The Philippines**

Sources of Information		Information Analysis		Information Sharing
Data Source (i)	Producer Organisation (ii)	Information Product (iii)	Producer organisation (iv)	Information Product users (v)
Various sources	Various producers but mainly the Department of Labour and Employment (DOLE)	www.neda.gov.ph <sup>32</sup>	National Economic Development Authority (NEDA)	The principal user of the LMI produced in the Philippines is NEDA, which is the country's premier social and economic development planning and policy coordinating body. The cited organisations are also producers and users of the LMI in their respective capacities.
Various sources (see narration below) <sup>33</sup>	See narration <sup>34</sup>	Medium-Term Philippine Development Plan (MTPDP) 1999-2004	NEDA	
same as above	same as above	The President's 1999 Socio-Economic Report (SER)	same	
same as above	same as above	Philippine Development Report, 1987-1992	same	
same as above	same as above	60 Years of Development Planning in the Philippines	same	
same as above	same as above	2001 Philippines Statistical Yearbook (PSY)	same	
same as above	same as above	The Countryside in Figures 2000 Edition	same	
same as above	same as above	Dictionary of Selected Statistical Terms	same	
same as above	same as above	-Philippines Economic Indicators	same	
same as above	same as above	-2001 Philippines Yearbook (PY)	same	

<sup>32</sup> This web site pulls together information collected by NEDA as well as from other producers/sources and also provides web links to these sources and other producer organisations.

same as above	same as above	-Monthly Bulletin of Statistics (MBS)	same	
same as above	same as above	-The Philippines in Figures 2000	same	
Data collected by Regional Offices	Regional Labour Offices	Evaluation of Inspection Reports from Regional Offices	BWC	
Data collected by Regional Offices	Regional Labour Offices and Bureau of Working Conditions (BWC)	Annual Summary Report of Work Injuries/Illness in Industrial Establishments	Regional Labour Offices and BWC	
Survey Data	Bureau of Labour and Employment Statistics (BLES) and Bureau of Local Employment (BLE)	Quarterly Employment Bulletin and Annual Report	Institute of Labour Studies	
Industry Studies on Rural Workers	Bureau of Rural Workers	ina	ina	
Regional Surveys on the Employment Situation of Children and working Minors and Youth	Bureau of Women and Young Workers	ina	ina	
MIS-Data bank on Women and Young Workers	Bureau of Women and Young Workers	ina	ina	
Administrative Data	Philippines Overseas Employment Administration (POEA)	Reports from Monthly Overseas Employment Monitoring	POEA	

33 Census data is used as a benchmark in the production of many of the publications in The Philippines.

34 Mainly the Bureau of Labour and Employment Statistics (BLES) and the National Wages and Productivity Commission (NWPC).

Labour Force Surveys	National Statistical Office (NSO)	Labour Force Survey Reports	NSO	
Out of School Youth Monitoring Surveys	NSO	Annual Survey Reports	NSO	
Personnel and Payroll Data of National and Local Governments	NSO	Quarterly Survey Reports on Employment and Compensation of National and Local Government	NSO	

### **State of The Labour Market Information System in The Philippines**

The National Economic Development Authority (NEDA) is the country's premier social and economic development planning and policy coordinating body. The information used by NEDA is obtained from the following major sources by (a) The Bureau of Labour and Employment Statistics (BLES):

- Occupational Wages Survey
- DOLE Survey of Establishments
- Employment Hours and Earnings Survey
- Labour Turnover Monitoring
- Survey on Specific Groups of Workers
- Profile of Labour Relations Situation in Top 1000 Corporations,

And (b) The National Wages and Productivity Commission (NWPC):

- Survey of Productivity Gain Sharing Schemes
- Study of the Profitability/ Insolvency of Different Industries in the Philippines
- Labour Cost Survey
- Philippines Labour Productivity Trends
- Productivity Assessment Report on Agricultural, Industrial, Service and Public Sectors
- Study on Decent Living Wage.

The Department of Labour and Employment and National Statistical Office are the largest producers of LMI in the country, followed by the Technical Education and Skills Development Authority (TESDA) (formerly National Manpower and Youth Council (NMYC), which was established in 1994, the Civil Services Commission (CSC) and the Department of Education, Culture and Sports. Official Statistics generated in The Philippines are published in various publications, which are available in print and electronic formats. More information can be obtained at the following websites:

- National Statistical Office- [www.census.org.ph](http://www.census.org.ph)
- National Economic Development Authority- [www.neda.gov.ph](http://www.neda.gov.ph)
- Institute of Labour Studies- [www.infor.com.ph/~dolemis](http://www.infor.com.ph/~dolemis)
- Department of Labour and Employment Statistics-[www.manila-online.net/bles/](http://www.manila-online.net/bles/)
- Department of Labour and Employment-[www.dole.gov.ph](http://www.dole.gov.ph)
- Technical Education and Skills Development Authority-[www.tesda.org](http://www.tesda.org)

### **Major Challenges**

- A study by Abdelkarim and Perez in 1996 revealed that the majority of the LMI that is generated in the Philippines is not relevant to industrial users. LMI is public sector oriented both in terms of content and format, and private sector users do not find LMI products relevant. Consequently, the major challenge that the country faces is to make the LMI produced attractive to a wide range of users.
- Little or no attempt is made to assess the usefulness of LMI to the different users.
- The flow of information is one way, i.e.; from various producers such as training institutions to government, but the government does not in turn provide the analysed information to training institutions to guide them on program structure and content.

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[www.tesda.org](http://www.tesda.org)

## 2.6 India

Sources of Information		Information Analysis		Information Sharing
Data Source (i)	Producing Organisation (ii)	Information Product (iii)	Producer Organisation (iv)	Information Product Users (v)
Various sources	Different organisations	<a href="http://www.labourbureau.nic.in">www.labourbureau.nic.in</a> <sup>35</sup>	Labour Bureau of India	Institute of Applied Manpower Research Training Centre for the Employment Services Staff (CIRTES) Directorate of Technical Education Directorate General of Employment and Training Ministry of Human Resource Development National Council of Educational Research and Training (NCERT), Higher Education and Research Institutions
Population Census	Registrar General's Office	The Census Data Products are available in the form of books, floppies and CDs.	Registrar General's Office	
Sample Surveys	National Sample Survey Organization (NSSO)	Data is disaggregated and published into various publications <sup>36</sup>	NSSO	
The Employment Market Information (EMI) Program <sup>37</sup>	Directorate General of Employment and Training (DGET)	Annual and Quarterly Manpower and Employment Reports	DGET	
Annual Surveys of Industries and Factory	Labour Bureau	Annual Survey of Industries-Summary Reports	Labour Bureau <sup>38</sup>	

<sup>35</sup> This web site pulls together information collected by the Labour Bureau of India as well as from different producers/sources and also provides web links to these sources and different producer organisations.

Quinquennial Rural Labour Enquiries	Labour Bureau	Rural Labour Enquiry Report on Wages and Earnings of Rural Labour Households  Rural Labour Enquiry Report on Employment of Rural Labour Households	Labour Bureau	
Educational Surveys	National Council of Educational Research and Training (NCERT)	All India Educational Survey Reports <sup>39</sup>	NCERT	
Manpower and Employment Surveys, i.e.; Area Skills Surveys	Government, NGO, and various institutions, e.g.; Research Bureau of the Employers Federation of India, The Indian Trade Union Congress, Institute of Applied Manpower Research	Various information products produced by the different organizations	Same as in (ii)	
Occupational Wage Surveys	Labour Bureau	Occupational Wage Survey Reports by Sector	Labour Bureau	

### State of The Labour Market Information System in India

India is one country with a rich tradition and experience in the use of LMIS for employment and manpower planning. Richter, L (1991) notes that the problems and experiences of India provide a rich observation and training ground for other developing countries. While there are many

<sup>36</sup> Literacy and Levels of Education in India, 1999-2000, Migration in India, 1999-2000, Employment and Unemployment among social groups in India, 1999-2000, Sources of Household income in India, 1999-2000, etc. Hard and soft copies are available.

<sup>37</sup> The EMI provides information on the structure of employment, assessment of manpower shortages, occupational compositions, educational profiles of employees, etc in formal establishments only.

<sup>38</sup> More information on publications is available on, <http://labourbureau.nic.in/vslabourbureau/regularp.html>.

<sup>39</sup> To date, six such major surveys have been conducted.

producers of LMI in India, the main producers of LMI are: the Labour Bureau of India, The National Council of Educational Research and Training, the National Sample Survey Organisation and the Central Statistical Office.

### **Efforts to Improve LMIS in India**

India is in the process of establishing a Labour Information Network System at National and Regional levels. The networking programme envisages computer networking of all the offices of the Labour Bureau, various state labour departments, the DGET as well as the main Secretariat of the Ministry of Labour. The Labour Information Systems Division (LISD) of the National Informatics Centre is coordinating the computerisation programme.<sup>40</sup> The LISD has developed a number of software packages for the areas of computerisation identified in the MIS report of the Integrated Labour Information Systems.

The main objective of networking is to provide on-line computer facilities and access to the data on Labour Statistics to various users. This will help the Bureau in developing a Management Information System (MIS) and a Decision Supporting System (DSS) for sound policy formulation and effective implementation of various schemes. It will help in the timely evaluation of the results from the on-line availability of the data. Networking will facilitate quick and effective decision-making among government planners, policy makers, workers groups and employers by providing timely, adequate and relevant information. It is proposed the Labour Network will be maintained with the help of National Informatics Centre Network. Training Programmes on how to operate application software packages have been conducted in the Ministry of Labour covering both officers and staff.

A number of institutions have been established to co-ordinate LMI generation as well as to advance existing knowledge on LMA. Two examples of such institutions are described below.

### **Institute of Applied Manpower Research**

This organisation is a semi public body with all interested ministries, professional organizations and educational institutions, represented in its General Council. Its main functions are:

- Advancing knowledge on the characteristics and use of human resources in India.
- Testing of the key informants approach.
- The development of a national manpower and skills inventory.

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<sup>40</sup> The LISD was set up in the Ministry of Labour (MOL) to develop information on the labour sector and provide computer-based services and consultancy to the various wings using the infrastructure support from the Ministry.

- Establishment of a databank on technical manpower.
- Carrying out various sectoral and sub-sectoral manpower surveys.
- Carrying out studies of manpower development in rural areas.
- Holding of training workshops for various actors in the labour market.
- Preparation of background papers on manpower, employment and labour market issues, which are used to prepare India's Five Year Development Plans.

**Training Centre for the Employment Services Staff (CIRTES):** This facility was established to provide training courses on LMI and various related topics to Indian Employment Services Staff as well as international students.

### Major Challenges

- The major challenge in LMIS development in India is to improve co-ordination in the generation and use of LMI. So many organizations are involved and data generation is largely decentralized. The lack of uniformity in the use of definitions and concepts has often been highlighted by critiques as a serious problem, which often makes it difficult to compare survey or other data collection results.
- Much more still needs to be done to improve the quality and coverage of LMI presently being collected by various agencies in India. Many critiques also have highlighted the problems of delays in publishing survey reports, i.e.; annual and quarterly survey reports are very common in India.
- There is also a lack of full coverage of data collection activities mainly due to resource limitations. Some data collection exercises had to be abandoned, for example; the attempted coverage of private sector establishments employing between 5 and 9 people.

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[http://www.nic.in/stat/stat\\_act.htm](http://www.nic.in/stat/stat_act.htm)

## 2.7 Hungary

Sources of Information		Information Analysis		Information Sharing
Data Source (i)	Producer Organisation (ii)	Information Product (iii)	Producer Organisation (iv)	Information Product Users (v)
Various sources	Hungarian Central Statistical Office (HCSO)	STADAT (database) <sup>41</sup>	HCSO	-Ministry of Labour -Educational Institutions, VET Institutions, Employment Services, Employers` and Workers` Organisations, Independent researchers, etc.
Population Census	HCSO	Hungarian Census Data	HCSO	
Labour Force Surveys	HCSO	Monthly and quarterly bulletins on national and regional employment and unemployment estimates, since 1998	HCSO	
STADAT and other sources	HCSO	-Hungary in Figures <sup>42</sup> -Regional Statistical Yearbook -Statistical Pocket book of Hungary -Statistical Yearbook of Budapest -Statistical Yearbook of Hungary	HCSO	
Employment Services Job Bank Social Security Information	Public Employment Services (PES)	Monthly publications on labour market situation since 1990	Ministry of Labour	

<sup>41</sup> This Statistics database puts together information on population, consumption, income, education etc from various sources. Access to the database is by subscription.

<sup>42</sup> This publication provides the most recent data available in a wide range of areas.

Medium Term Employment Forecasts	National Labour Centre(NLC)	Half yearly publications on labour market situation and trends at national and by region level since 1994	Same as above	
Data from various surveys	HCSO and NLC	Quarterly publications on Employment and Earnings since 1994	HCSO	
Various sources	HCSO, Education and Training Institutions	Data on Education	HCSO	
Occupational Employment Surveys	NLC	Half yearly publications on Labour market projections since 1991	Same as above	
Sector Surveys	NLC	Annual publications on basic wages and total earnings since 1992	Same as above	

### **State of The Labour Market Information System in Hungary**

Hungary is among the statistically advanced transition economies.<sup>43</sup> From the onset of the transition period, Hungary opted for comprehensive programmes of systematic statistical transformation based on strict deadlines and clear-cut targets. Hungary has already passed through the first two stages of statistical reform: institutional building and the introduction of new concepts, definitions and methods of collection of statistics compatible with international standards. The country is now in the third stage of transition where it has to deal the various challenges that confront its statistical systems. Since 1994, a new National Occupational Classification based on ISCO-88 has been applied in Hungary and also the Hungarian Classification of Education is compatible with the International Standard Classification of Education (ISCED). Hungary is now working on refinement of methods of data collection, improving quality, reliability and comparability of statistics from various sources, and improving of data presentation techniques and dissemination practices.

The Ministry of Labour also produces the following major publications based on qualitative and quantitative data.

- Half yearly evaluation reports of a system of monitoring active labour market programs and their former participants since 1994.

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<sup>43</sup> Other transition economies with advanced statistical systems are; Poland, Czech Republic, the Slovak Republic, Republic of Slovenia and the Russian Federation.

- A handbook of occupations, which includes information on educational requirements of different occupations.
- Publications on medium and long-term forecasts of manpower supply and demand by occupational groups since 1992-first report 1997.

### **Major Challenges**

- There seems to be little participation from the Vocational Education Training institutions themselves in the collection and analysis of this information.
- There is no systematic evaluation of the usefulness of LMIS, hence it becomes difficult to determine whether the users are satisfied or not.
- The prohibitive high cost of producing LMI makes it difficult to produce adequate copies for all the potential users.
- Hungary, as a country in transition, has not been able to produce detailed medium and long-term forecasts on supply and demand for labour, disaggregated by occupation and educational qualification.
- There is no satisfactory feedback on school leavers entering the labour market.

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## 2.8 Ukraine

Sources of Information		Information Analysis		Information Sharing Practices
Data Source (i)	Producing Organisation (ii)	Information Product (iii)	Producer Organisation (iv)	Users (v)
Information is obtained from different sources	Data comes mainly from the institutions listed below	-Statistical Yearbook -Ukraine in Figures -Ukraine 2000 (Annual publications)	SSCU	The main users are the ministries and government departments responsible for HRD policies and programs.
Population census, once every 10 years since 1945	State Statistics Committee of Ukraine (SSCU)	* <sup>44</sup>	SSCU	
Household/Labour Force Surveys since 1995	Same as above	ina	ina	
Labour Force Based Informal Sector Survey, since 1997	Same as above	ina	ina	
Establishment Sample Surveys, since 1996 <sup>45</sup>	Same as above	ina	ina	
Enterprise Labour Flexibility Survey, since 1994	Same as above	ina	ina	
Administrative Data; -Tax Authorities Records -Social Insurance Records -Enterprise monthly and quarterly statistical reports <sup>46</sup> -Employment Office Registers -Income and outstanding payments on Wages	-State Tax Administration  -State Statistics of Ukraine  -State Employment Centre -The National Bank of Ukraine	The information is published in the annual publications listed above.	SSCU	

<sup>44</sup> The preliminary report is produced 10 months after the census and the final report is published 2 years after the census.

<sup>45</sup> Also known as Establishment-Based Wages and Labour Cost Surveys.

<sup>46</sup> These are compulsory recurrent reports.

## **State of The Labour Market Information System in Ukraine**

It was only after attaining independence in 1991 that, the new government of Ukraine started working on initiatives to create a genuine national labour market, which did not exist before because of the existence of a number of inhibitive labour laws.<sup>47</sup> Serious efforts to establish a comprehensive LMIS compatible with the country's needs started in 1995 and are still underway. The major players in the generation of LMI are:

- The State Statistics Committee of Ukraine (Derzhkomstat),
- The National Bank of Ukraine,
- The Ministry of Finance, and
- The Ministry of Labour and Social Policy.

### **Inter- Agency Co-operation**

The State Statistics Committee of Ukraine (SSCU) is the overall co-ordinator of the statistical system in the country, and in accordance with Ukrainian law, the committee functions as an autonomous body. It has the right to determine the content of statistical data, choose statistical methods, data sources, dates of release, and ways of data collection and dissemination.

It works in close collaboration with other state agencies, supplying them with statistical information and also receiving necessary administrative data from them. For example, it submits on a regular basis to the Ministry of Labour and Social Policy of Ukraine a full set of data on labour and other relevant issues. Similarly, the State Employment Services, in its turn, provides SSCU with information on employment and unemployment data from its administrative records (Ukraine Country Report 2001).

### **Information Dissemination Practices**

- A State Agency for the Dissemination of Statistical Information was established within the SSCU in 2000 to improve the dissemination of statistical information in Ukraine.
- Information is disseminated in both print and electronic formats.
- A mailing list is maintained for each publication, and government planning agencies and some international organisations receive statistical information free of charge.

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<sup>47</sup> The prosiska, for example, which inhibited the free movement of labour.

- The bulk of the publications are issued in Ukrainian. A few of the publications are however translated into other languages like Russian, German and English.
- For the first time in 1999, a questionnaire aimed at assessing the usefulness and relevance of statistical publications was developed and distributed to different users. This has however not been maintained.

## Major Challenges

Inter- agency co-operation and information sharing is still weak and a lot still needs to be done in this area. It was the findings of Chernyshev in his study of the Ukrainian LMIS that there are multiple sources of LMI in Ukraine capable of generating a vast amount of new and very useful LMI. However, the biggest shortcoming he points out categorically is lack of co-ordination in data collection, analysis and dissemination. He however commends Ukraine for having been able to develop the nucleus of a LMIS, and is quick to point out that the different agencies concerned with the collection, analysis and dissemination of LMI needed to break the so-called "...institutional barriers and agree both on the coverage and uniform policy of LMI production and dissemination" (Chernyshev, I (1998b: 837).

The following is a summary of the Ukraine's major challenges in LMI:

- Non-transparent methodology of computing statistical indicators. Users are not informed of any changes regarding methodology and definitions.
- Reliance on cumulative labour market indicators as opposed to quarterly indicators, which make use of labour market signalling to monitor systematically labour market trends.
- Data does not contain all the indicators needed to make informed decisions on HRD policies and programmes.
- The insufficient number of English publications limits the usefulness of statistical information to international users.
- Lack of efficient means for disseminating information. Data still reaches users late due to the lack of efficient means for disseminating information. There is no policy, which ensures systematic dissemination of information. It is however hoped that the establishment of the State Agency for the Dissemination of Statistical Information would help to deal with this shortcoming.
- Data is not usually available to a wide circle of users.

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Ukraine Country Report (2001)

## 2.9 Jamaica

Sources of Information		Information Analysis		Information sharing
Data Source (i)	Producing Organisation (ii)	Information Product (iii)	Producer Organisation (iv)	Information Product Users (v)
Various sources, both quantitative and qualitative	Various organisations	www.lmis-ele.org.jm <sup>48</sup>	Ministry of Labour and Social Security (MLSS)	(a) Government of Jamaica, National Council for Technical and Vocational Education and Training (NCTVET) <sup>49</sup> , Industry Lead Groups <sup>50</sup> , Educational and Training Institutions, and other policy planners in government ministries.  (b) Jamaica Information Service is responsible for disseminating information on government policies, programs and activities of various ministries and public sector agencies. <sup>51</sup>
as above	as above	Labour Market Information Newsletter, produced quarterly	Planning Institute of Jamaica	
as above	as above	Economic Update and Outlook, produced quarterly	Planning Institute of Jamaica	
as above	as above	The Jamaica Human Development Report, first pub. 1998	Planning Institute of Jamaica	
as above	as above	Economic and Social Survey Jamaica	Planning Institute of Jamaica	
as above	as above	Planning Institute of Jamaica Annual Reports	Planning Institute of Jamaica	
as above	as above	Jamaica Survey of Living Conditions, annual pub.	Planning Institute of Jamaica	
Commissioned Research study	Planning Institute of Jamaica	Gender and Achievement in Secondary Education 1998. <sup>52</sup>	Planning Institute of Jamaica	

<sup>48</sup> This web site pulls together information collected by the Ministry of Labour and Social Security as well as from different producers/sources and also provides web links to these sources and different producer organisations.

<sup>49</sup> Regional sub-committees exist in four zones across the island to direct outreach units of the Council, as well as co-ordinate its activities.

<sup>50</sup> These are made up of employers, professional and other experts in the field who have significant knowledge of and influence in an industry or occupation.

<sup>51</sup> It also maintains a web site on various issues of national interest as well as employment opportunities in the public sector ([www.jis.gov.jm](http://www.jis.gov.jm)).

<sup>52</sup> A result of a research project commissioned by the Policy Development Unit of the Planning Institute Of Jamaica.

Educational Surveys	Planning Institute of Jamaica	ina	ina	
Survey of Employment, Earnings and Hours Worked in Large Establishments	Statistical Institute of Jamaica	ina	ina	
Labour Force <sup>53</sup> Establishment Surveys/Population Census	Statistical Institute of Jamaica	Survey reports are published	Statistical Institute of Jamaica	
Administrative data on enrolments of educational and TVET Institutions, graduation lists of educational and TVET institutions, and various other sources of information	HEART/NTA <sup>54*</sup>	www.heart-nta.org	HEART/NTA	
Labour Exchange Database	MLSS	Monthly and Annual Reports for internal decision making	MLSS	

### State of The Labour Market Information System in Jamaica

Jamaica is one of the countries in the Caribbean Region that has shown great commitment to improving the production and use of LMI for policy planning purposes. The country has most data sources in place, and the generation of LMI is compatible with the international standards on

<sup>53</sup> Labour Force Surveys are conducted 4 times a year and twice a year when there is a census.

<sup>54</sup> Human Employment And Resources Training/ National Training Agency.

\* HEART also does tracer studies of its own graduates and this is an on-going program.

labour market information.<sup>55</sup> However, Jamaica's LMIS is under transformation and significant changes are being made. A section has been established in the Ministry of Labour, which deals specifically with LMI. This section will conduct regular research on labour market issues on behalf of the Ministry. Information sharing will also be easier as the various related agencies will produce reports in both print and electronic format.<sup>56</sup> These initiatives are part of a larger LMIS improvement project, which was launched in January 2002 with assistance from the US Department of Labour.<sup>57</sup> This project has two main objectives, (i) the development of LMIS itself with the capacity to conduct research and generate reports and information etc; and (ii) the creation of an Electronic Labour Exchange system within the Employment Services.<sup>58</sup>

### **Major Challenges**

- LMI is not readily available and what exists is under utilized.
- Financial constraints often prevent the wide scale coverage of surveys.
- There is not much public access to LMI-inadequate facilities e.g. computers.
- Employers do not make much use of existing LMI.
- Institutions producing LMI not very coordinated for example, the use of different statistical packages makes it difficult for hard data to be transferred or shared between bodies.

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[www.jis.gov.jm](http://www.jis.gov.jm)

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<sup>55</sup> See the ILO Labour Statistics Convention (C160) and the ILO Labour Statistics Recommendation (R170).

<sup>56</sup> A LMI website, still under construction though, was created to make LMI readily available to users ([www.lmis-ele.org.jm](http://www.lmis-ele.org.jm)).

<sup>57</sup> Similar projects are also being implemented in other Caribbean countries.

<sup>58</sup> [www.lmis-ele.org.jm](http://www.lmis-ele.org.jm)

## 2.10 Bahrain

Sources of Information		Information Analysis		Information sharing
Data Source (i)	Producing Organisation (ii)	Information Product (iii)	Producer Organisation (iv)	Information Product Users (v)
Various sources	Different organisations	www.bah-molsa.com <sup>59</sup>	Ministry of Labour and Social Affairs (MOLSA)	The main users of LMI are; -Min of Labour and Social Affairs -The Economic Development Board (EDB) <sup>60</sup> -The Bahrain Society for Training & Development -Bahrain Training Institute -Training and Employment Centre -Bahrain International Development Centre as well as many other education and training institutions.
Census Data, once every 10 years	Central Statistical Office (CSO)	Published Book	CSO <sup>61</sup>	
Annual Population Estimates	CSO	Published Book, Brochure (Bahrain in figures)	CSO	
Annual Labour Force Estimates	CSO	Book, Brochure	CSO	
Administrative records on Employment in the Private Sector	General Office of Social Insurance (GOSI)	Monthly and Annual Reports (the latter are published) <sup>62</sup>	GOSI	
Administrative records on Employment in Private Sector of non-Bahrainis	Foreign Employment Section (FES)	In-house monthly and annual reports	-FES -Also provided by the CSO in much detail.	

<sup>59</sup>This web site pulls together information collected by MOLSA as well as from different producers/sources and also provides web links to these sources and different producer organisations.

<sup>60</sup> This board is responsible for attracting investments in financial services, tourism, IT, healthcare and more importantly, education and training.

<sup>61</sup> Data produced by the CSO and GOSI is used by the Labour Research and Studies Section (LRSS) to estimate employment in the informal sector.

<sup>62</sup> Reports show total number of establishments, number and percentage of Bahrainis and non-Bahrainis employed in these establishments.

Administrative records on Employment in Public Sector	-Civil Service Bureau (CSB) -Pension Fund Commission (PFC)	In-house annual requests, print outs on special requests	CSB  PFC	
Administrative records on in-service trainees in colleges and private companies	-Bahrain Training Institute (BTI) -Min of Labour and Social Affairs (MOLSA)	In-house monthly and annual reports (can be printed on request)	BTI MOLSA	
Vacancy registers (unemployment data)	MOLSA-Employment Services Bureau (ESB)	In-house annual requests, print outs on special requests	MOLSA-ESB	
Administrative records on Training Statistics	MOLSA-Department of Manpower Development (DMD)	Annual Report every two years	MOLSA-DMD	
Administrative records on Education Statistics	Ministry of Education	Annual reports, education statistics year book	Ministry of Education	

### **State of The Labour Market Information System in Bahrain**

As at 1996, no single government body was responsible for employment and human resources planning as such. This very important function was partially done by the Ministry of Finance and National Economy and the Supreme Planning Board. The Ministry of Labour and Social Affairs (MOLSA) was mainly responsible for employment conditions in the private sector including issuance of work permits and assisting Bahrainis in securing employment in the private sector. The Civil Service Bureau was responsible for employment in the public sector. Information relating to manpower was partially collected by the CSO and other government agencies.

Since 1996, the MOLSA has started to play an increasingly important role in the generation of LMI. Now the MOLSA through its various arms: the Employment Services Bureau (ESB) and Foreign Employment Section (FES), for example, is the major producer of LMI that is used for employment and human resources planning. Other producers are; CSO, GOSI, Pension Fund Commission, Civil Service Bureau, Education and Training Institutions, and the Ministry of Commerce. The map above shows that the bulk of the LMI used for employment and manpower planning is generated from operational data.

The MOLSA in conjunction with the Ministry of Education is taking steps to implement the Bahrain Government's policy of establishing training as a major industry. The choice of Bahrain as a regional centre for training and development, especially for the Gulf Co-operation Council,<sup>63</sup> poses a great challenge on the part of employment and human resources planners, who do not only have to plan for the locals, but also for the regional and international community. This means that, for the country to retain its credibility as the regional centre of excellence, the whole manpower planning process has to depend very much on up-to-date and reliable LMI.

### **Employment Situation in Bahrain**

Bahrain faces a two-pronged employment challenge: creating jobs for the new entrants to the labour market; and training the locals in manpower shortage areas. Some sources say that there is no unemployment problem in Bahrain, especially considering that a large number of job openings are filled by non-Bahrainis.

What is important however is that the practical usefulness of LMI generated in Bahrain can be noticed from the design of the training and employment programs in the country. It is also easy to relate or see the connection between the LMI collected and the planning of employment and training programmes in Bahrain. For example, the MOLSA is currently implementing the National Programme for the Employment and Training of Bahrainis<sup>64</sup>, which is aimed at enhancing the capabilities of the Bahraini labour force to meet the profiles required by the labour market, to secure productive employment for the unemployed, university graduates, young members of needy families, former employees and people with special needs, and to provide support to small businesses.

Based on available LMI on the extent and magnitude of the employment problems in the country, the MOLSA managed to draw up this comprehensive plan, which details what training programmes should be offered, the beneficiaries and program funding.

### **Improving Co-ordination of LMI**

With financial support from the UNDP, technical assistance of the ILO, and local technical assistance from the CSO, Bahrain embarked on a project "Enhancement of Institutional Capacity for Labour Market Analysis and Monitoring" (1996-2000). This project was aimed at improving labour market monitoring and the information system in the MOLSA, which is the ministry responsible for employment and human resources planning in Bahrain.

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63 Other members are Kuwait, Saudi Arabia, United Arab Emirates, Omar and Qatar.

64 Refer to the following web page for detailed information on the programme:

[www.bah-molsa.com/english/nation-program.htm](http://www.bah-molsa.com/english/nation-program.htm)

Given the level of local expertise and resources that were available in Bahrain, and also for purposes of sustainability, it was not possible to set up a fully-fledged LMIS that was able to respond to the needs of the different customers. Two-stage development of a LMIS was therefore undertaken:

- Setting up an information system that was responsible for providing the data that was required by the Ministry of Labour in meeting the responsibilities. This involved the development of a unified network within the Ministry of Labour and the development of an intranet that was subsequently included as the MOLSA component on the Government Data Network.
- Expanding the LMIS to meet the needs of the wider users. This resulted in the establishment of an Internet website ([www.bahmolsa.com/static.htm](http://www.bahmolsa.com/static.htm)) accessible to all those requiring information of a labour market nature. Currently Bahrain is in the process of setting up a national committee made up of top officials from ministries, government bodies and undertakings in the private sector to ensure greater co-ordination and synergy of development initiatives.

Bahrain has also benefited from the technical assistance for establishing a unified LMIS in the GCC, which has been carried out jointly by the ILO and the Executive Bureau of the Council of the Ministers of labour in GCC (2000-2001).

### **The Labour Research and Studies Section (LRSS)**

This is similar to Singapore's Manpower Research and Statistics Department (MRSD), and is responsible for the collection, analysis and dissemination of LMI. Apart from regular data collection exercises, the LRSS also carries out studies on various issues related to HRD. For example: Bahrain Student Flows and the Labour Market 1998; Total Demand for Labour 1999; and Bahrainisation 1998 are all research studies that have been undertaken by the LRSS as part of the project on "Enhancement of Institutional Capacity for Labour Market Analysis and Monitoring". The LRSS also produces ad-hoc reports, all of which are made available to employment and human resources planners as well as the general public, for example: Report on Newspaper Job Vacancies (July – Dec 1998); Labour Market Indicators (January 1999); Status of Labour Market Information Data and Reports Received by LRSS (May 1999); and Labour Market Statistics 1998-1999.

The LRSS is also responsible for the publishing the Labour Market Information Directory which shows what information is available in Bahrain, who produces the information, the frequency with which the information is produced as well as where and how to get the information.

### **Major Challenges**

The project mentioned above on "Enhancement of Institutional Capacity for Labour Market Analysis and Monitoring" (1996-2000) was mainly undertaken to address the following major challenges;

- Weak institutional capacity to collect, analyse and disseminate of LMI.

- Lack of understanding of producers of LMI on what kind of data to collect, when to collect, and how to transmit it to the users.
- Weak relations/linkages among institutions that handle LMI to ensure that data is available on request.

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## **Sources**

Consultancy Mission Report of William H Bartsh, May 13 to June 21 2000, under the project; “Enhancement of Institutional Capacity for Labour Market Analysis and Monitoring” in Bahrain.

Labour Research and Studies Section (1999): Labour Market Information Directory, May 1999(State of Bahrain)

[www.bah-molsa.com](http://www.bah-molsa.com)

## 2.11 Zimbabwe

Sources of Information		Information Analysis		Information Sharing
Data Source (i)	Producer Organisation (ii)	Information Product (iii)	Producer organisation (iv)	Information Product users (v)
Census Data, once every 10 years	Central Statistical Office (CSO)	Published National and Provincial Reports <sup>65</sup>	CSO	-National Manpower Advisory Council (NAMACO) -Zimbabwe Manpower Development Fund (ZIMDEF) -Policy Planners in Education Ministries, Ministry of Labour, Ministry of Youth, Gender and Employment Creation, as well as other government agencies -National Employment Services Department (NESD) -Education and Training Institutions -Research Institutions -Employers and Employees` Organisations -etc
Labour Force Survey	CSO	Indicator Monitoring Labour Force Survey (Annual Publication)	CSO	
Compilation of statistics from various sources	CSO	Annual Statistical Yearbook	CSO	
Compilation of statistics from various sources	CSO	Quarterly Digest of Statistics	CSO	
Compilation of statistics from various sources	CSO	Statistical Flash (Free mailing list)	CSO	
Administrative Records	Immigration Department	Annual Migration and Tourist Statistics Quarterly Migration and Tourist Statistics	CSO	
Compilation of statistics from various sources	CSO	Education Report (once every three years)	CSO	

<sup>65</sup> Data generated from the Census is used extensively as the benchmark for several of reports on health, education and other related issues at national and provincial levels. The information is also used to produce Quarterly Digests and Annual Statistical Reports.

Manpower Needs Survey <sup>66</sup>	National Manpower Advisory Council (NAMACO)	Manpower Needs Survey Report	NAMACO	
Various sources, mainly qualitative	NAMACO/ZIMDEF	National Human Resources Development News (monthly bulletin)	NAMACO/ZIMDEF	
Administrative records from educational establishments	Ministry of Education	Annual Report of The Secretary for Education, Sport and Culture	Min of Education	
Commissioned Research/Survey	Nziramasanga Commission	Report of the Presidential Commission of Inquiry Into Education and Training in Zimbabwe 1999	Government of Zimbabwe	
Administrative Records of Employment Services	National Employment Services Department (NESD)	Monthly and Annual Reports (these are not published)	NESD	

### **State of The Labour Market Information System in Zimbabwe**

Zimbabwe represents a country that has demonstrated a lot of commitment to improving the availability of LMI. The structures and institutions to handle LMI are all in place, i.e.: a Central Statistical Office, a very well organised Employment Service,<sup>67</sup> a Labour Research and Statistics Unit in the Ministry of Labour, and a tripartite National Manpower Advisory Council (NAMACO). The CSO is responsible for the collection, publication and distribution of the bulk of LMI in Zimbabwe. There is however no systematic way of combining this data with regular and systematic forecasts and projections of manpower requirements.

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<sup>66</sup> The surveys are not regular.

<sup>67</sup> The CSO and the National Employment Services have a network of offices in all the regions/provinces of the country.

A major project aimed at creating a Human Resources database is now set and waiting for approval of funds. This project, which is the brainchild of NAMACO, is aimed at bringing all LMI produced in Zimbabwe under one roof. All the major producers of LMI, which include, CSO, Ministry of Labour, Ministry of Higher Education and Technology, Ministry of Education, and Ministry of Youth, Gender and Employment Creation, among others, are expected to take part in the project. It is hoped that the successful implementation of this project would go a long way in ensuring greater co-ordination in the production and dissemination of LMI, which is currently lacking in Zimbabwe.

### **Major Challenges**

While there is increasing awareness of the role of LMI in HRD policy, there is still little progress regarding new approaches to human resources and employment planning, which requires regular monitoring of the labour market and detective work on labour market trends to ensure that human resources policies and programs reflect the requirements of the ever changing labour market.

It also appears there is not much activity and commitment to generate the much-needed targeted and specific information to assist in the formulation and implemented of HRD policies and programmes. A well co-ordinated Labour Market Information System is yet to be instituted and function properly. The absence of a coherent Labour Market Information System in Zimbabwe has resulted in a general lack of understanding of the functioning of the labour market. The production of LMI is still uncoordinated, which renders the formulation and evaluation of labour market policies and programs difficult. There is no clear mandate on who does what. A lot needs to be done to improve the visibility of the Ministry of Public Service, Labour and Social Welfare in the collection, analysis and dissemination of LMI. The capacity of the Research and Statistics Department of the Ministry of Public Service, Labour and Social Welfare in this respect needs to be strengthened.

An imbalance exists between the quantitative accumulation of manpower and employment information and its effective use for policy planning and decision-making processes. Applied research especially at ministerial level and analysis of the labour market situation in Zimbabwe is underdeveloped and often times based on individual initiatives. Officials particularly in the Employment Services, often lack sufficient background in labour market theory and quantitative data handling techniques.

There is also a lot of duplication and hardly any information sharing. For example, when NAMACO conducted the National Manpower Needs Survey in 1997, similar surveys had been conducted within the last two (2) years by the MOHET, CSO, ILO/SAMAT and NUST, and there was little or no effort to combine the findings from these surveys (NAMACO, 1997:4). Respondents are often subjected to a lot of the boredom and monotony of having to respond to the same questionnaires administered by different organisations.

There is still a lot of missing information, which could make a lot of difference in the way manpower planning is conducted in Zimbabwe. While this information could be there in some government departments, this information is not analysed and shared with other potential users, through regular and easy to read publications, for example. This data includes: public services recruitment trends/practices, foreign recruitment,

retrenchments, as well as data on the informal sector. Many people have raised concerns regarding the lack of a focused approach and co-ordination in manpower development efforts, which is currently being done by 4 different Ministries as follows:

- Ministry of Education, Sport and Culture
- Ministry of Public Service, Labour and Social Welfare
- Ministry of Higher Education and Technology and
- Ministry of Youth, Gender and Employment Creation.

Despite impressive developments in Information Communication Technology and Internet usage elsewhere, Internet based data dissemination practices are still not available in Zimbabwe. Most of what happens inside ministries and government departments is not known to a wide range of users. A lot more still needs to be done to improve information sharing in this regard.

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NAMACO (1997): Manpower Needs Survey Report (NAMACO).

Mangozho, N (2001): Higher Education and Labour Market Dynamics: The Case of Zimbabwe (MA Research Paper- Institute of Social Studies, The Netherlands).

## **2.12 Conclusion**

The main objective of this chapter was to discover the different sources and methods of collecting, analysing and disseminating LMI that exist in different countries with different levels of resources. The bias was toward LMI that could be of interest to government agencies and other stakeholders, concerned with the design and implementation of training and employment policies and programmes. This has been achieved through the presentation of the “system maps” which showed the wealth of LMI that is produced in the sample of countries reviewed, the different approaches used and challenges faced in generating and disseminating the information. From these different experiences, it has been possible to identify some common trends, which can be termed good practices in the development of appropriate mechanisms that handle LMI and ensure that it is made available to policy planners in a timely fashion. These are discussed in the next chapter. What seems evident from the cases reviewed here is that, while the majority of the developed countries have made remarkable progress in establishing and developing institutions that handle LMI, many of the developing countries and transition economies, are still struggling to achieve the same fit. Some of the common barriers faced are also outlined in the next chapter.

## **CHAPTER 3**

### **BARRIERS TO LMIS DEVELOPMENT AND STRATEGIES TO OVERCOME THEM: A DISCUSSION OF FINDINGS**

*The task of perceiving, interpreting, and responding to labour market signals will be much easier for those manpower planners whose governments have invested in Labour Market Information Systems.*<sup>68</sup>

#### **3.1 Introduction**

This chapter identifies some common barriers in LMI use and development of LMIS. And more importantly, the chapter discusses in some detail five features that have emerged in this review as good practices in the development of LMIS.

#### **3.2 Barriers To Labour Market Information Systems Development**

While there is increasing recognition of the importance of LMI as a basis for policy formulation and decision-making, progress in the development and use of LMI has “rather been uneven” and the majority of developing and transition economies have lagged behind. A capacity gap still exists between, on the one hand, labour market data collection and on the other hand, information analysis and policy formulation. This is consistent with the observation made by the ILO (1992:15) in a number of countries:

In the area of LMI, as with most other areas, which rely on the production of statistics, there has been a great increase of available data but no great improvement in our ability to understand data and turn it into information.

While this capacity gap differs in extent and magnitude, it is characterised by a combination of the following factors:

- Limited capacity and instruments to effectively, regularly and in a timely way collect, process, analyse and disseminate relevant and reliable LMI.
- Inability to combine information from various sources and particularly the failure to incorporate data collection exercises on the informal economy into the national framework.
- Inadequate resources for statistical programmes and other activities aimed at generating LMI.
- Inability of producers to co-ordinate efforts or share information.
- Inability of users to specify needs and to translate these needs to producers of LMI.
- Information collected is not further analysed to make it relevant to the needs of policy makers.
- Inflexibility of Labour Market Information Systems, that is; inability to respond swiftly to emergency situations.
- Weak structural mechanisms to link policy practice with movements in the labour market.
- Lack of a clear mandate on who should do what.
- Lack of a culture of information use.
- Inadequate balance between qualitative and quantitative LMI.
- Lack of assessment of the relevance and usefulness of information to various users, particularly those outside government ministries and agencies.

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68 Middleton J, Ziderman A, and Adam A.A (1996: 152).

It has also emerged that, these constraints, although fully recognised, defy easy solutions. But it is possible to learn from the experiences of those countries that have managed to set up well co-ordinated LMIS. The idea is not to suggest the transfer of systems from one country to another, but merely to provide lessons from good practices.

### **3.3 Good Practices In Labour Market Information Systems Development**

The following are five items that have emerged from this review as hallmarks of more advanced Labour Market Information Systems.

#### **3.3.1 Establishment of Appropriate National Institutional Mechanisms/Forums To Handle LMI**

This review has identified two strategies that several countries have adopted to establish efficient mechanisms of assessing the usefulness of LMI and to achieve a coherent, comprehensive and systematic flow of information from producers to users. This is also consistent with the findings of other people like Garonna et al (2000), who have handled this subject before. The first and most popular strategy has been to adopt a co-ordinated data collection and dissemination system within the national government. At the helm of the LMIS would be a Labour Market Information Committee, or a Labour Market Advisory and Co-ordinating Committee, or which ever name is used, constituted by the social partners, and in most cases, with the Ministry of Labour as the secretariat and chair of such a committee. The major functions of such a committee are: to co-ordinate activities in the LMIS; undertake the formulation of labour market policies; and to monitor and supervise the implementation of labour market programmes.

In countries with a federal form of government it is necessary to involve provincial or state government ministries responsible for education, higher education, training, labour and human resources development. These departments often establish interdepartmental co-ordinating committees to deal with human resource development and training issues and sometimes establish sub-committees that obtain, analyse, interpret and share labour market information. The ministries that play the lead role on these committees then represent provinces or states on intergovernmental committees co-chaired by a federal and a lead provincial representative. These committees can provide valuable feedback to agencies that collect labour market information because they represent ministries who use such information on a regular basis to develop and implement human resource development and training policies and programs.

The second strategy has been to set up National Employment and Training Observatories.<sup>69</sup> Observatories have been set up across Central and Eastern Europe, the West Balkans and the New Independent States, Mongolia and French speaking Africa. These can be found at sectoral (industry), local, national, regional or international levels. They often comprise of Employment Services, education planners, training providers, career counsellors, Small to Medium Scale Enterprises (SMEs), employer and employee organisations, Non-Governmental Organisations and civil society groups involved in human resources development, skill formation and employment issues. Observatories work hand in hand with national training organisations and vocational training centres. They are often closely connected with universities and research centres. They mainly handle qualitative information

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<sup>69</sup> Also known as Labour Market Observatories (LMOs).

and they meet from time to time to discuss skill and training needs and other wider labour market issues such as social dialogue, current and anticipated changes in work organisation and collective bargaining. LMOs try to raise awareness and levels of understanding on the state of the labour market, as well as future likely labour market trends. They also advise the government and other policy-makers on labour market policy.<sup>70</sup>

These two strategies are not necessarily in conflict; a country can have both. In fact, even countries with well functioning Labour Market Information Systems are now in the process of adapting these Observatories to suit their situations. But whichever way a country decides to go, what is ultimately important is to give the responsibility of co-ordinating the collection, analysis and dissemination of LMI to a specific institution or government ministry. Such an authority would be responsible for, among other functions, assessing policy implications of LMI and disseminating the results at appropriate forums at national as well as regional or local levels. In disseminating the results from Labour Market Analysis, it should be borne in mind that the ability to develop more tangible LMI products, which provide a broad and up dated knowledge of the developments on the labour market for different users, could be a yardstick to measure the success of any information dissemination practices.

### **3.3.2 Partnerships in Generation of LMI and Manpower Planning**

Co-ordination in the generation and use of LMI, and the involvement of the social partners are a precondition for the success of any initiatives to establish efficient and well functioning Labour Market Information Systems. The involvement of social partners creates a culture of joint responsibility, which promotes a long-term commitment to problem solving and more importantly ensures greater harmonisation of manpower policies and programs. The ability to identify the niches of the different stakeholders, closer co-operation and networking among the CSO, the Ministry of Labour, and other producers and users of LMI, as well as the profound pooling of their experiences and resources are important recipes, which may lead to mutual enrichment of a country's Labour Market Information System, and more importantly complement efforts/actions at all levels.

The other form of partnership and collaboration that has been discovered here is among research institutions, higher education institutions and government departments responsible for generating LMI, and planning and implementation of human resources development policies and programmes. The partnership between UK's DfES and the University of Warwick in the development of the skills database is an example of the partnership that is being referred to here. What is however disturbing to note is that most of the labour research that is conducted at institutions of higher education is mainly done to satisfy academic interests, and results and recommendations of such research studies are not often used by policy makers.

The partnership and collaboration among research institutions, higher education and government departments can be enhanced by having academics from institutions of higher education present the results of their research at conferences and seminars sponsored by one of the other partners. Academics are often interested in sharing the results of their research with other parties who have a genuine interest in their work. If government planners and policy analysts are careful not to infringe upon the academic freedom of researchers in higher

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<sup>70</sup> See [www.etf.eu.int/etfweb.nsf/pages/nobs](http://www.etf.eu.int/etfweb.nsf/pages/nobs), Sparreboom, T. (1999), Samorodov, A. (2001).

education institutions, these same researchers will sometimes direct their research in a direction that is beneficial to all members of the partnership.

### **3.3.3 Improved Use of Administrative Records**

Records of labour administration systems hold a wealth of information, which is often under-utilised, and most surprisingly, by those countries with few resources to devote to other more comprehensive and regular data gathering exercises. One factor, which encourages greater statistical utilisation of administrative sources, is the concern to reduce the response burden placed on individuals and businesses by statistical surveys. ILO/EASMAT (1997:7) notes that labour statistics based on administrative records have two broad functions as follows:

- (a) Assessing the productivity and efficiency of an administrative system, as well as providing a quantitative measure of its coverage ... (and) to monitor the performance of the system;
- (b) Assessing and monitoring the economic and manpower situation for use in preparing, evaluating and monitoring action plans, structures and outcomes.

The following good practices in the use of administrative data have been observed in several of the countries studied here:

- Synchronisation of definitions used in administrative data with those used in other sources of LMI. This makes it possible for comparability of statistical information from various sources.
- Setting up of national standards for defining concepts and units used in the generation of LMI. Such standards are often compatible with international standards.
- Supplementing of administrative data systems with independent and regular surveys and studies specifically meant to generate more comprehensive information not normally covered by operational data.

It is important, however, to be aware of the statistical limitations of administrative data sources. For example, administrative procedures are intended to achieve programme objectives, and as a result, information collected primarily for these purposes is bound to be limited in scope, coverage and reliability. However, disregarding these limitations, data from administrative records have the advantage of being the exact measure of what is being counted. It is not affected by sampling variability, or non-response associated with labour forces surveys and employer surveys and most importantly it makes the design of targeted programs easily possible (ILO/EASMAT, 1997).

In addition to being aware of the statistical limitations of administrative data it is equally important to explain these limitations to users of the information. For example, there may be occasions when administrative data show movement in one direction while a more general survey indicates a movement in a different direction. In these situations, it is important to explain why this is happening so that the credibility of the information is not compromised.

### **3.3.4 Improved Information and Communication Technology Tools**

Information and Communication Technology (ICT) for many countries has improved the availability and usefulness of LMI for effective manpower and employment planning. In the words of Phan T, Hansen E, and David P (2001:66):

In terms of manipulation and analysis of information, automation has made it possible to access sources of administrative data that were not formerly available. Moreover, more sophisticated software, particularly relational databases, have made it possible to combine and analyse multiple sources of data in ways that were not feasible in the past.

The availability of information and communication technologies also makes it a lot easier to update automated databases as new information is reported. LMI products are being developed and disseminated much faster than before via the Internet for example. Data collection methods are also being improved through the application of new communication technology tools. Some countries, such as Singapore, are moving towards electronic modes of collection of sample survey data. Both household and establishment surveys have e-mode submission options of survey responses. While disregarding the shortcomings, this method of data collection saves on time spent inputting manually collected data into the computer and ensures that data is analysed and results realised in a timely fashion.

Over and above its usefulness in the development and dissemination of LMI the Internet can provide some very useful background information for those involved in the development of an LMIS. For example, Statistics Canada's website contains a section on statistical methods where copies of its surveys, questionnaires, definitions, methodologies, classification systems and policies and guidelines can be downloaded. Since this agency has devoted a significant share of its resources to the development of labour market information, the surveys, questionnaires and methodologies it uses could provide a useful starting point for anyone establishing or upgrading an LMIS.

Another example of the type of information that can be disseminated using the Internet can be seen on the Alberta Learning Information Service (ALIS) website provided by two provincial ministries in Alberta, Canada.<sup>71</sup> The Ministry of Human Resources and Employment and the Ministry of Learning in the Province of Alberta operate a website that is designed to help Albertans learn about career planning and explore career choices; obtain information on education and training programs; locate links to post-secondary learning institution websites; acquire information concerning students' finance and scholarships; find out how to apply online for admission to post-secondary education and training institutions; find information about occupations; access labour market information; and search for jobs.

ALIS also includes links to Alberta Occupational Profiles, an Electronic Student Loan Application and a Looking for Work site. The Alberta Occupational Profiles site contains more than 500 occupational profiles and includes the job duties, normal working conditions, skill and educational requirements, earnings and employment outlook for each occupation. The Electronic Student Loan Application gives students the option to apply for financial assistance using the Internet. This makes it easier and quicker for students who have access to the Internet. The Looking for Work site helps job seekers explore work opportunities both within and outside of Canada.

The ALIS site provides information that can be used by a wide variety of users including students, job seekers, career counsellors, vocational training specialists, secondary and post-secondary educational counsellors, and post-secondary education and vocational training institutional planners and program developers. Although the site itself contains some extremely useful information, the links it provides to other sites are valuable as well to anyone seeking labour market, training and job search information.

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71 See [www.alis.gov.ab.ca](http://www.alis.gov.ab.ca)

However, the use of computers is no guarantee of an effective Labour Market Information System. Difficulties such as biased or inadequate responses to surveys; lack of co-ordination between data producers and users; incomparability among data sources; and resource constraints cannot be solved automatically by introducing computer systems. And as noted by the ILO (1992:9):

Although computerization would establish a comprehensive framework for computer based reporting, efficient job-matching and housekeeping functions, it is not a solution in itself to the problem of inaccurate and incomplete information.

### **3.3.5 Development of Databases**

While this is not necessarily a new phenomenon, countries with well-developed LMIS take pride in the development of databases, which assemble information on various labour market indicators. This information, which can be both quantitative and qualitative in nature, is generated from various sources and by different producers. The development of Key Indicators of the Labour Market (KILM)<sup>72</sup> and the piloting of Labour Market Information Library (LMIL)<sup>73</sup> Networks by the ILO is a model attempt to stimulate the creation of such databases and also make regional and international comparisons possible for appropriate policy development.

The attempt to encourage countries to develop indicators of labour market activity that are regionally and internationally comparable should make it easier for labour market information system designers in different countries to use realistic definitions of the labour force, employment and unemployment, for example. One of the most politically sensitive statistics published is the unemployment rate and LMIS developers can expect to have their definitions of the labour force and unemployment challenged whenever the unemployment rate increases at the same time when the economy appears to be improving. Unfortunately the unemployment rate usually does not come down until an economic upturn is well underway because the rate is a lagging indicator of economic activity.

As a final note in this chapter, it should be stressed that while databases are important in providing time series data to monitor labour market trends, they may not be adequate enough to assist policy makers to address short-term contingencies. Databases need to be supplemented by ad hoc surveys, research studies, or other data collection exercises, which would explore lesser-known data sources for special information not normally collected or found in databases.

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72 KILM was launched in 1999 by the ILO with a view to (a) present a core set of labour market indicators (twenty indicators have been developed), and (b) to improve the availability of the indicators to monitor new employment trends.

73 The LMIL project, which is co-ordinated, by the ILO's Bureau of Statistics, the KILM Team and four ILO Multidisciplinary Advisory Teams (MDTs) in Port-of-Spain (Trinidad and Tobago), Addis Ababa (Ethiopia), Harare (Zimbabwe) and Beirut (Lebanon) is aimed at improving the assembling, analysis and dissemination of up-to-date and relevant Labour Market Information

## CHAPTER 4

### CONCLUSION: FROM LABOUR MARKET ANALYSES TO POLICIES AND PROGRAMS

*Although instruments of this kind (Labour Market Analyses) have been developed in more and more member states in recent years...only rarely has it been ensured that the results of their endeavours also flow into policy and practice. There is still a considerable gap between theory and practice, between vocational training experts and practitioners, between researchers and users, and this gap urgently need to be bridged, if the innovation process is to be expedited and rendered effective.<sup>74</sup>*

This paper has consistently demonstrated the importance of making reliable LMI available on a timely basis to policy planners and all those concerned with the formulation, implementation and evaluation of HRD policies and active labour market programs. While Labour Market Analysis and generation of LMI are important activities, the design and implementation of policies and programs is equally important, in order to complete the circle. However, translating results of Labour Market Analysis into effective policies and programmes is a hurdle that many countries are still struggling to get over.

One of the motivations to improve the availability of accurate and comprehensive LMI is to help policy makers to come up with targeted policy interventions. Niall O'Higgins (2001) notes that policy interventions should concentrate more on the most disadvantaged groups in the labour market, hence proper identification of the target groups is very important. In the same vein, Goronna et al (2000:8) point out that:

More reliable and precise data would allow decision makers to plan, target, monitor, evaluate and adjust education and training systems more effectively in the context of globalisation, rapid technological developments and workplace changes.

Thus LMI can serve as a useful point of reference in the designing of appropriate policy responses to pertinent labour market issues like educational gaps between men and women, wage discrimination, youth unemployment, horizontal and vertical job segregation, employer's 'tastes/preferences' for a type of labour force, and so on. When LMI is not used in any way to inform the decision-making processes, Grubb and Ryan (1999) recommend that the information should not be collected in the first place, as this entails a waste of the already scarce resources. This might however not be the best solution to the problem. An alternative way forward is presented below, but before that, let us take brief pause to review the progress in the development of LMIS over the years.

#### 4.1 Progress in The Development of Labour Market Information Systems

The following is a brief summary of progress made in the development of Labour Market Information Systems over the past 3 decades or so. The strategies that can be implemented to promote LMIS improvements are discussed below.

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<sup>74</sup> Cedefop Panorama series (2001:28)

**Table 2: Where Are We Coming From and Where Are We Going?**

Period	Data Collection, Analysis, Storage and Retrieval
The 70s and before	<ul style="list-style-type: none"> <li>-Manual collection, filing and retrieval systems</li> <li>-No co-ordination in generation of LMI</li> <li>-Data collected mainly from Census and Administrative records of various government Ministries/departments</li> </ul>
The 80s	<ul style="list-style-type: none"> <li>-The need to co-ordinate efforts starting to emerge</li> <li>-Development of computerised entries and network systems</li> </ul>
The 90s	<ul style="list-style-type: none"> <li>-Establishment of formal institutions to co-ordinate the generation of LMI, i.e.; Labour Market Information Systems and Labour Market Observatories (LMO).</li> <li>- More tangible LMI products, which provide a broad up, dated knowledge of the developments on the labour market for different users.</li> </ul>
2000 and beyond	<ul style="list-style-type: none"> <li>-Revolutionising access to LMI, i.e.; one-stop shops and on line retrieval systems.</li> <li>-Use of electronic modes of survey data collection.</li> <li>-Creation of more flexible LMIS capable of responding to ah hoc situations.<sup>75</sup></li> <li>-Enhanced partnerships in generation and use of LMI</li> <li>-More diversified sources of information</li> <li>-Greater orientation to the needs of information customers</li> </ul>

## **4.2 Strategies for Improving Labour Market Information Systems and Availability of LMI for HRD Planning**

### **4.2.1 Tailor LMI To The Needs of Users**

The experiences of countries with LMI are so different that it is not feasible to prescribe a one size fits all criterion for handling LMI. It is therefore considered of paramount importance for countries to develop Labour Market Information Systems that are able to address and respond to the concerns and needs of different users. While quantitative accumulation of labour market statistics is very important, it is not simply enough to assemble statistics. The information has to be analysed to suit the needs of specific users, and the results disseminated in a timely fashion. Policy makers as well as other users deem it as very important for the institutions that handle LMI to invest in their capacities to analyse LMI and to translate the information into a language that can easily be understood. The availability of comprehensive information that appeals to a wide range of users is a prerequisite in efforts to develop a culture of information use. Policy makers and other players in the labour market should derive pleasure in designing policies and arriving at decisions, which are based on accurate, timely collected and disseminated LMI.

<sup>75</sup> These are special situations or trends on the labour market, not normally covered by the known sample surveys.

The first step that should be taken when an LMIS is being designed is to identify the needs of users and potential uses of LMI. Those conducting an assessment of users' needs should go beyond simply asking users what they need. They should provide them with examples, from countries with well-developed systems, of what could be produced and how that could be used. This will provide the designers with a better understanding of the types of information that should be collected, the analysis and interpretation required and the communication formats and vehicles that should be used to disseminate the information.

Secondly, the successful dissemination of LMI products requires a well co-ordinated strategy to ensure that users receive information in a regular and timely fashion, and also in a useable form. This strategy can include the use of press releases, ministerial statements, summaries, publications, presentations and the Internet. The way information and the interpretation of the information is presented in each of these communication mechanism should be governed by the audience it is designed to reach.

Press releases and ministerial statements, for example, should be prepared by communications experts, in consultation with senior analysts who are able to interpret the information in a way that can be understood by high level decision makers and the general public. Summaries also need to be prepared using non-technical language that is easier for policy makers and program designers to understand. Each major publication of technical information should include an executive summary for non-technical users which accompanies the more technical information presented in the main report. This makes the publication valuable to both technical and non-technical users.

Thirdly, special presentations of LMI are one of the most versatile mechanisms available for communicating LMI to users. Such presentations can be designed to include as wide a range of information as the audience requires. Sometimes LMI needs to be presented in a broader context that includes the social, economic and demographic changes taking place within a country, a region or a local area. In other situations, the audience may only need or be interested in some very specific LMI. And finally, just as presentations offer a versatile vehicle for the communication of LMI so too does the Internet. The Internet can be used to communicate everything from press releases to very technical documents that contain complex statistical tables and analysis.

#### **4.2.2 Diversify Sources of LMI**

The failure to take advantage of and to fully utilize different data sources is a weakness, which characterises economies with less developed Labour Market Information Systems. Too much is often expected from one source of LMI, and in most instances, the Central Statistical Office, which is overburdened with the collection of LMI, often with dwindling human, material and financial resources. However, with the increasing diversity of labour markets, this may not produce the best results. In the development of an integrated Labour Market Information System, it is very important to identify the different niches of the various players in the generation, analysis and dissemination of LMI and work towards developing their various capacities. LMI from different sources needs to be fully exploited in order to give a comprehensive picture of developments and trends in the labour market. Such sources mainly include:

- Regular and periodic surveys including the census,
- Labour and social policy legislation and regulation,
- Administrative records, and

- Labour research (commissioned and independent), aimed at responding to issues of special interest.

The existence of overlapping data sources contributes to a deeper and broader understanding of the dynamics of the labour market and formulation of comprehensive labour market policies and programmes. However, the strengths and weaknesses of each data source should be fully known to producers and users of the information. This facilitates continuous improvements of data collection instruments as well as innovations.

In many situations, the organizations using the information are not as well equipped to gather and compile data as a Central Statistical Office. User organizations usually employ individuals with a combination of strong analytical skills and an ability to interpret information in ways policy developers and program designers find useful, whereas Central Statistical Offices typically employ experts in survey design and sampling methodology. In these situations it may be more cost effective and operationally useful for the organizations using the information to contract with the CSO to gather and perform the initial analysis of the data. The user organizations can then devote their in-house resources to undertaking a more detailed analysis and further interpretation of the information so it is more useful to policy analysts and program developers.

#### **4.2.3 Combine Quantitative and Qualitative LMI**

There should be a multi disciplinary approach to LMI analysis and reporting of results, which combines both qualitative and quantitative techniques. Statisticians and non-statisticians need to cooperate for the best results and more importantly a culture of information use and sharing needs to be developed. While this could take some time, it should be noted that the benefits are worthwhile.

As an example, when countries establish Labour Market Information Committees or Labour Market Advisory and Co-ordinating Committees they should consider establishing technical sub-committees to analyse, interpret and disseminate specific types of LMI. These sub-committees could be comprised of statisticians and non-statisticians from each of the ministries with an interest in the particular information being developed. This combination of individuals with different interests and backgrounds will ensure better results and contribute to the development of a culture of information use and sharing.

#### **4.2.4 Find Multiple Uses for Information**

Statistical data disseminated by the national statistical office, may need to be combined with data (qualitative or quantitative) from other sources, disaggregated, and further analysed to suit the needs of the different users. Labour market statistics generated by the CSO may require a variety of publications and dissemination formats. There may also be a need to develop synchronised statistical packages, which makes it easy for raw data to be transferred or shared among the various stakeholders. This makes it possible for raw data to be interpreted and analysed in a way that suits the needs of different users, and more importantly, this makes it possible to identify missing information, which needs to be collected. For example, in Canada, data from the census, apart from being relevant to Population Planners, is also used to develop Human Resources Profiles. However, in most countries, the CSO is often isolated from its customers.

Statistics Canada, the central statistical agency in Canada is a good example of a CSO that is not isolated from its customers. Considered by many to be one of the best in the world, this agency has a long history of working closely with its clients at both the national and provincial levels to determine their needs. The agency undertakes extensive consultations with users on an ongoing basis and whenever the methodology of a survey such as the Labour Force Survey is updated, users are provided with an opportunity to make comments and suggest improvements that will allow the information collected to be used more extensively. Similarly, the long form that one in every five households covered by the census is required to complete was developed in consultation with users right across the country.

#### **4.2.5 Nurture Intelligent Users of LMI**

It is important to have intelligent users who are able to put pressure on producers of LMI to produce LMI that satisfies their requirements, and when this is not possible, to be able to find ways and means of filling the information gaps. There is a strong need for technical assistance, especially for many of the developing countries and transition economies in the establishment of coherent and well functioning Labour Market Information Systems, particularly in the areas of; institutional capacity building, labour market analysis, monitoring and evaluation, as well as database administration and networking. Arrangements for sharing of innovation and best practices in Labour Market Information System development between countries could provide a platform for enhancing the capacity of those countries with weak Labour Market Information Systems or in the process of improving their data handling procedures.

When countries seek technical assistance from international development agencies to establish or upgrade their labour market information systems, they should always request that the executing agency be familiar with approaches taken in countries that have well-developed labour market information systems. In addition, the team that provides the technical assistance should include specialists with experience in, for example; institutional capacity building, labour market analysis, monitoring and evaluation, as well as database administration and networking. Finally, the technical assistance should provide for visits by LMIS staff from the country receiving the assistance to similar agencies in countries with well-developed systems. While no development process can exactly be the same, there is always scope to learn from each other's experiences.

#### **4.2.6 Promote Continuous Improvements in Data Gathering**

The following innovations in improving data gathering should be promoted:<sup>76</sup>

- Arrangements for better access to raw data files across ministries and agencies, which handle LMI, as well as interested institutions of higher education and researchers.
- Greater disaggregation of labour force, census and other household surveys.
- Merging of existing data files, cross tabulation, regression and multivariate analysis.
- The tapping of government records and files concerning the use and development of personnel, and
- The addition to existing surveys of more questions relevant to manpower planning.

Most of these innovations require skilful negotiation by the lead ministry responsible for the development of LMI and close collaboration among all the agencies involved in the

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<sup>76</sup> Economic Commission for Africa (1996).

collection, analysis and dissemination of LMI. To arrange for better access to raw data files the lead ministry will have to overcome concerns these other organizations may have about the confidentiality of information in their files and use innovative approaches that provide access but protect the confidentiality of individual records. If a country has established an appropriate committee structure to deal with such inter-organizational issues, the lead ministry is more likely to be successful in its attempts arrange for better access to data files.

Increased disaggregation of census data, labour force survey and other household survey data may require increasing the size of the samples used to collect labour market statistics. In some countries one in every five households are asked to fill out a longer census form that includes a significant number of labour market activity questions. This rather large sample allows far greater disaggregation than is possible with most labour force and other household surveys that are based on considerably smaller samples. The cost of increasing the size of the sample of a monthly, quarterly or annual household survey needs to be examined closely to make sure the additional information and reliability is worth the increased cost.

Merging existing data files, cross tabulation, regression and multivariate analysis are activities that yield good returns for the resources invested. Also, if the confidentiality issue can be addressed in a satisfactory way, tapping government personnel files can yield a good deal of valuable information. And finally, adding labour market questions onto existing surveys is a cost effective strategy that has been used successfully in countries with well-developed systems of data collection. This ensures that surveys collect data that is capable of addressing emerging policy concerns.

#### **4.2.7 Assess of The Usefulness of LMI**

Feedback from producers and users of information is very important. Regular studies, workshops and other methods of evaluation are necessary to assess existing systems and identify new sources of information or discard existing ones, which may have fallen out of favour. In the case of Canada, evaluation plays a central role in its Labour Market Information System. From time to time, a series of studies that synthesise research and evaluation findings on Canadian experiences with LMI, human resources policies and programmes are conducted. These studies review and analyse both Canadian and international experiences in specific areas and key findings are presented as lessons learned. More attention needs to be paid to monitoring the demand for information as well as making information available to many clients other than governments.

Non-government users of information can include private education and training institutions, non-profit organizations, private sector employers, employer organizations, students, job seekers, workers and employee organizations. Although it is difficult to obtain feedback from all of these groups, an effort should be made to assess and respond to their needs. Their inputs and support for an LMIS can be extremely valuable when decisions regarding budgets are under consideration.

#### **4.2.8 Develop Political and Institutional Support**

Political and institutional support can be gained by pursuing the seven preceding strategies in as efficient and effective a manner as possible. In pursuing these strategies it is important to understand that political and institutional support is required to establish and maintain a credible labour market information system. Although responding to the priorities of users

may at times conflict with the logical development of the system, in these cases the needs of the users should be seriously considered even when doing so might delay progress on the development of the system.

As a final note, regardless of how inadequate resources may be, as long as the existing institutions support and recognise the importance of LMI, it will be easier to establish positive producer-user relations and create HRD policies and programmes that address the requirements of the labour market. Successful Labour Market Information Systems show that strong political support and involvement of social partners have combined to produce relevant and timely LMI to guide the process of formulation, implementation and evaluation of HRD policies and programmes.

## **Annex 1: Concepts and Definitions of the Main Terms Used.**

The following definitions have been consistently applied throughout this study, unless otherwise stated:

**Human Resources Development:** the integrated use of training and development, organisation development and career development and other interventions designed to improve individual or group effectiveness and to support the successful attainment of national and/or organisational strategic goals and objectives.

**Human Resources Development Planning:** the process of designing policies and programs to direct and influence HRD activities and outcomes.<sup>77</sup>

**Labour Market Analysis (LMA):** the measurement and evaluation of economic forces as they relate to the education and training process on one hand, and the employment situation on the other hand. Such economic forces include, but are not limited to; labour force changes and characteristics, population changes and characteristics, industrial structure and development, technological developments, shifts in consumer demands, wage levels, recruitment practices, conditions of employment and training opportunities.<sup>78</sup>

**Labour Market Information (LMI):** The ILO has defined LMI as: “ *any information concerning the size and composition of the labour market or any part of the labour market, the way it or any part of it functions, its problems, the opportunities which may be available to it, and the employment-related intentions or aspirations of those who are part of it.*”<sup>79</sup>

**Labour Market Information System (LMIS):** A set of institutional arrangements, procedures and mechanisms that are designed to coordinate the collection, processing, storage, retrieval and dissemination of Labour Market Information.

**Labour Market Observatories (LMO):** These are advisory bodies, formed at local, national, regional or international levels to raise awareness and levels of understanding on the state of the labour market, as well as future likely labour market trends. They meet from time to time to discuss and advise on issues like, skill and training needs and other wider labour market issues such as social dialogue, current and anticipated changes in work organisation and collective bargaining.

**Labour Market Signals:** these can be understood to refer to the most recent indicators of changes in the labour market. They convey warnings of important new developments or confirm trends previously observed (Richter, L 1989).

**Public Employment Service (PES):** A PES can be defined as a public sector agency set up to deliver and administer various labour market services and programs.

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<sup>77</sup> The wider definition of HRD planning also encompasses population planning. However, this study is only concerned about the aspects of HRD planning which relate to; manpower planning, human resources planning, employment planning, or human resources and employment planning. In the context of this study, these terms are taken to refer to the one and the same thing.

<sup>78</sup> [www.wa.gov/esd/ui/rcw5038.htm#015](http://www.wa.gov/esd/ui/rcw5038.htm#015)

<sup>79</sup> See Thuy, P, Hansen, E and Price, D (2001:57).

## Annex 2

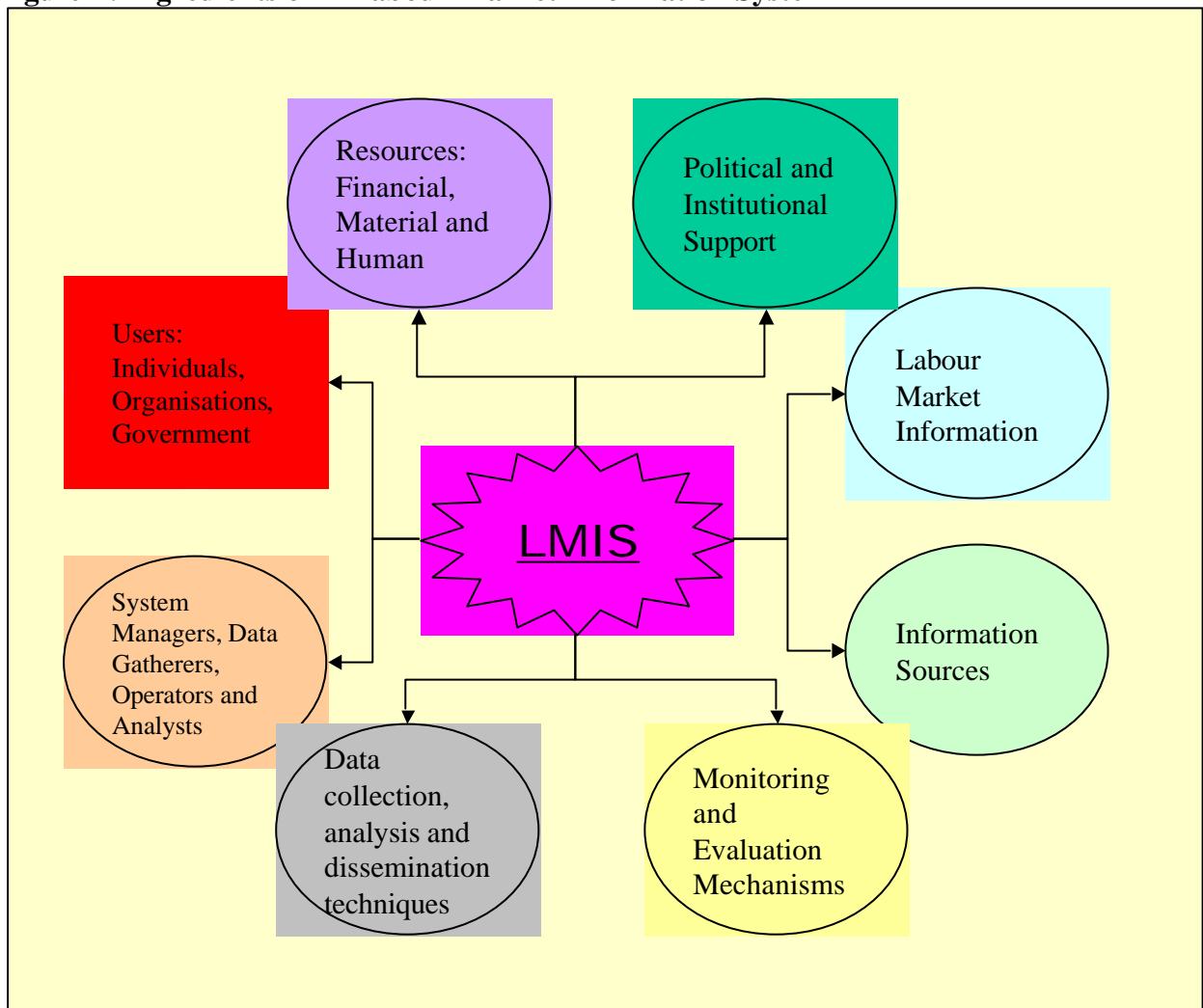
**Table 3: Three Contrasted Approaches to Human Resources Planning**

	<b>Manpower Planning (i)</b>	<b>Cost effectiveness Analysis/ Rate of Return (ii)</b>	<b>Labour Market Analysis (iii)</b>
<b>Planning Style</b>	Mechanical Projections	As in (i)	Projections based analysis of information generated from the labour market
<b>Financing of training programmes</b>	Government led	Employers and trainees pay (including training vouchers)	Income generation by training institutions
<b>Governance</b>	Central direction and planning; government dominated national and regional councils	Employers and labour organisations represent market forces	Industrial sectors represented through industry associations, chambers, etc
<b>Curriculum Development</b>	By central government agency	By employers with/for training institutions	By training institutions in response to labour market signals; validated by industry sector
<b>Standards and Certification</b>	Set by central agency	Set by industry	N/A
<b>Training Delivery</b>	Government trainers delivering centrally planned curriculum (no industry experience needed)	Market-oriented trainers shaping training to customer needs	Ex-industry trainers; training partnerships within industrial sectors between in-plant and off-the job trainers
<b>Inspection, Monitoring and Evaluation</b>	Government inspectors checking on delivery of government curriculum	Employers checking on quality and relevance of training institution provision	Sector agencies (associations) comprising trainers and employers checking that trainees match sector needs
<b>Staffing</b>	Trainers as government-appointed technicians	Trainers also marketers, backed by marketing staff	Trainers linked closely to industrial sector, working in in-plant as well in training institutions
<b>Information systems</b>	Numbers of trainees required by government to compare with national plan	LMI required by training institutions	Industrial sector's labour market information required by employers and training institutions
<b>Training management</b>	Administrator-led trainers and their managers are civil servants following government policies	Marketer-led trainers backed by marketing managers and paid by results	Led by autonomous institutional managers, using industrial liaison officers, institutional staffing determined by sector associations

Baud, I (2001) in Mangozho, N (2001)

**Annex 3**

**Figure 2: Ingredients of A Labour Market Information System**



The above figure is adapted from Sparreboom, T (1999:3).

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