

## Chapter IV

### GENERAL

Before projection methods are described, the concept of labour demand needs to be defined and the principal means of estimating it, statistically, outlined. The different types of projection which can be prepared must be distinguished: for example, is the purpose of the projection to assess labour requirements or the probable trend of employment? Are the projections to be short-term, medium-term or long-term? Thereafter the main projection methods which may be used will be described and their basic principles explained.

#### A DEFINITION OF THE CONCEPT OF LABOUR DEMAND AND MEANS OF MEASURING IT

The economically active population can be defined in a number of different ways. The concept of labour demand corresponds to one of them, that of the economically active civilian population in employment. At the theoretical level, this definition is clear, but quantification of the concept raises various practical obstacles to which attention must be drawn.

##### 1. *The concept of labour demand: theoretical definition*

In Part One of this manual the economically active population was discussed from the standpoint of supply and therefore considered as consisting of all persons seeking to be employed. Labour demand is the number of jobs supplied by the economy at a given date. This number varies with production trends, increasing with economic expansion and declining with recession, so that changes in the size of the economically active population in employment are related to fluctuations in the economy.

There are two differences between the labour supply and the employed economically active population:

(a) All persons having no job but desiring to have one are included in the first of these definitions of the economically active population and excluded from the second. These persons may be unemployed workers who have lost their jobs and wish to find others — or persons seeking a job who have not worked recently but do not qualify as unemployed. Many women who form part of the labour supply are in this latter situation;

(b) Persons in military service, whether they are young people subject to conscription or persons making their career in the armed forces, are excluded from the employed economically active population but are

included in the labour supply. Labour demand covers only the demand for civilian labour.

##### 2. *Means of measuring labour demand and practical difficulties in estimating it*

The concept of labour demand appears to be clear and easy to quantify, inasmuch as it is related to the availability of jobs. Measuring would therefore seem to require only a count of the number of jobs. Detailed analysis of this question shows, however, that there are a number of practical difficulties: not all jobs are full-time and some workers holding full-time jobs are in fact underemployed. Rather than counting the number of jobs available in an economy, it would be better to use a more rigorous definition involving the number of hours actually worked in a year.

##### (a) *Part-time workers*

One may be engaged in an occupation on one's own account or as the employee of another person, an enterprise or a public authority such as the State. Among the heads of enterprises and employees, the practice of a part-time occupation affects only a relatively small number of workers, largely women or elderly persons. Forms of occupation are not, however, confined to these two situations; there is a third, that of family helpers. In this case, the worker belongs to the family of the head of the enterprise in which he works and receives no salary. Usually it is the wife or children of the head of an agricultural, handicraft or commercial enterprise who are involved. Classification of such persons raises difficult problems: some of them can be assimilated to full-time employees, from whom they differ only in legal status. In many cases, however, the help these workers provide is very limited and perhaps intermittent: a farmer's wife, for example, may work for the greater part of the day on the farm, or provide a few hours' work a day or work only on certain days of the year — harvest time.

The definitions of occupation used in population censuses vary greatly from one country to another. Some countries prescribe a high number of hours of regular work each week before family helpers are regarded as genuinely in employment and thus being members of the economically active population. In other countries, the definition is much broader.

The way in which employment (or job) is defined therefore varies, even within a single country, since part-time workers are included in the same totals as those

who are working full-time throughout the year. Moreover, the definition varies from one country to another.

(b) *Underemployed workers*

The concept of underemployment is somewhat different from that of part-time work. The person may have a job which he thinks of as a full-time occupation and in fact be working only half-time. Such situations are particularly common in the agricultural and the services sectors. The Indian peasant who can work only at certain seasons is treated, in the statistics concerning economically active population, as being in full-time employment. No distinction is made between him and the factory worker who works for forty-five hours a week. Estimates of the economically active population in employment are thus essentially heterogeneous. The issue of underemployment may also arise in industry; if the working week in one branch is thirty-five hours at a given date, whereas the normal working week is over forty hours, workers in that branch might appear to be underemployed. However, this is more often than not only a temporary situation caused by economic fluctuations, whereas in agriculture and the services sector, the underemployment among some workers is chronic.

In the United States of America a definition of the concept of underemployment has been formulated which allows for all of these very different situations. The concept is a measure of the underemployment of workers over the whole year, and the underemployed, for this purpose, comprise workers not employed for fifteen weeks or more during the year and those whose income from a full-time job was less than \$3,000 in the same year. This new concept combines unemployment, underemployment in the traditional sense and insufficiently productive employment. However, its measurement requires a considerable amount of statistical data which are difficult to obtain, in particular on the total annual income of workers.<sup>1</sup>

Estimates of the economically active population in employment are therefore heterogeneous, since they add together jobs in which the man-hours worked are not the same. In some countries where underemployment in agriculture is substantial, it may be assumed that almost half of the labour force is not employed full-time. For these reasons, it would be preferable to express labour demand at a given date as the total number of hours of work required to meet the needs of production. For practical reasons, however, this is not feasible. No country has the necessary detailed information on hours worked, and this is especially true of sectors in which part-time employment and underemployment are widespread. However, part-time employment and underemployment are factors which cannot be overlooked in making projections.

All estimates of the agricultural labour force must, in almost all countries, take underemployment into

account. The process must not, however, be carried too far; underemployment may be the product of climatic conditions whose effects cannot be entirely eliminated by technical progress. In such circumstances, projections cannot be confined to only those jobs which provide a full-time year-round occupation for agricultural workers.<sup>2</sup>

An example of this can be found in industry. One may take the case of an industrial branch in a highly developed country where working hours are exceptionally short. If a considerable increase in production in the sector involved is planned for coming years, the increase in the employed labour force will be smaller than that required if, during the base year used for the projection, working hours had been normal.

## B. WAYS OF ASCERTAINING PAST TRENDS IN LABOUR DEMAND

Labour demand is measured by the economically active population in employment. There are two essential means of estimating it: the population census and surveys at enterprises. Brief accounts of these follow.

### 1. *Population censuses*

Periodic population censuses have one essential theoretical advantage: they are exhaustive. When they are taken, all the inhabitants of a country are included in the scope of the survey. Traditionally, questions are asked as to occupation: Is the respondent employed on the date of the survey? In which economic sector is he working? What is his trade? By suitable processing of the answers, the numbers of the population in employment and their distribution by economic sector and by occupation can be computed. Other information is usually gathered at the same time concerning the status of economically active persons (employers, employees, family helpers) and on educational level (certificates of general or vocational education held, number of years of study, age of leaving school or university). Cross-referencing of all this data enables a fairly complete picture of the characteristics of the employed economically active population to be built up: thus, the distribution by occupation of the labour force in a given sector of economic activity, say, the iron and steel or the electrical machinery industry, can be determined or its distribution by educational level established.

In countries which cannot carry out comprehensive population censuses, effective sampling techniques have been perfected in recent years which make it possible to secure the same data for a sample of the population regarded as representative.

The main drawback of population censuses is lack of clarity in the replies. A census is an inquiry made of

<sup>1</sup> United States of America, Bureau of Labor Statistics, *Manpower Report of the President of the United States* (Washington, D.C., 1968), p. 34.

<sup>2</sup> For a detailed discussion of this question see chapter V, section A, which deals with projection methods in agriculture.

persons who, in many cases, do not reply in the presence of the inquirer and for that reason the essential details are frequently lacking. This applies to statements as to occupation and, above all, as to educational levels. Tables based on incomplete replies are often difficult to interpret, since the number of headings created to record these replies is too large. This drawback exists in all countries, whatever their level of economic development.

## 2. Surveys at establishments

The surveys have advantages and drawbacks which are the reverse of those of population censuses:

(a) These surveys can yield precise information on the occupation of the workers employed. The establishment knows the exact occupations of its employees and classifies them in its records by that criterion; it can therefore reply easily to inquiries of this kind. Moreover, data can be obtained which cannot be collected through population censuses, such as data on the nature of the capital equipment and size of the establishment. This information is very useful in analysing the factors which determine the level of employment and its distribution by occupation in the various sectors of the economy;

(b) However, these surveys have a double drawback: they can scarcely ever be exhaustive and they presuppose the prior existence of a register of all establishments in the country. Experience shows that the task of setting up and, more important, keeping this register up to date is a difficult one and rarely perfectly performed, even in countries with a sound statistical infrastructure. Moreover, the fact that there are many small enterprises, each employing only a few people, in certain sectors of the economy makes it difficult to carry out the surveys. Finally, these surveys yield no data on the educational level of the workers employed. Establishments which know precisely what qualifications their employees have are very rare.

Thus, experience shows that recourse must be had to both these essential means of ascertaining facts on the economically active population in employment, in so far as they are complementary. An over-all picture of this population segment can be obtained only through a census or a sample survey of the population. Certain data which enable the links between employment and the factors of production to be analysed can be supplied only by establishments; this information is, however, limited to the population working in enterprises and does not cover workers who are in the subsistence or the tribal sectors, or in the armed forces.

## C. MAIN TYPES OF LABOUR DEMAND PROJECTIONS

The projecting of trends in labour demand in future years can be approached in various ways. The different types of projection can be classified in relation to three criteria: (a) the purpose of the projection itself (is it to be a projection of theoretical manpower needs for implementing a plan, or of the most probable trends in

employment in the years to come?); (b) the mode of distribution of labour demand (is it sought to determine the future structure of this demand by status, by sector of economic activity, by occupation, or by level and type of education?); and (c) the length of the projection period (is the trend of employment to be estimated on a short-term, medium-term or long-term basis?). These types of projection are dealt with in detail below.

### 1. Projections differentiated according to their purpose

In a country which has defined its economic development targets in, for example, a plan, employment projections serve to determine the manpower required to achieve those targets. Their function is then normative and takes the form of estimating, say, the number of engineers or technical staff which industry must recruit in order to attain the desired level of industrial output, or the number of secondary and primary teaching posts which will have to be created in order to provide for compulsory school attendance by children up to the statutory leaving age. These estimates are an adjunct to economic planning, but an entirely subordinate one. The real feasibility of recruiting the workers needed is studied only at the second stage. Once the plan has been prepared and been transposed into manpower terms, the compatibility of the estimated manpower needs with the available capacity for training highly skilled personnel is reviewed. If this review leads to the conclusion that it is a practical impossibility to train the required skilled workers in present educational conditions, the necessary measures for the reform of education must be considered or, if it appears that even a thorough reform of the educational system will not make it possible to train the necessary personnel, the economic targets of the plan will have to be revised.

This type of projection is very different, both in purpose and in the projection methods employed, from an estimate of the probable future trend of employment. In the latter case, the evolution of production and the effect of productivity on the growth of employment, are also taken into consideration. Here, however, the basis of the projection is not the output target, but the expected evolution of production to meet the spontaneous evolution of demand. The normative function is absent. Moreover, and most important, the supply of skilled labour which will be available in the coming years is taken into consideration right from the beginning of the calculations. The probable trend of employment depends, of course, on the balancing of supply and demand, and accordingly the aim in this case is not to find out the number of engineers required, but the number actually available for recruitment, bearing in mind the needs of the economy and the number of engineers who will be on the labour market in future years.

Hence the difference in approach in these two types of projection is maintained up to the end of the calculation process: in the first type, the goal is to define a policy of education, employment and production; in the second, action is not the aim of the projection, which is simply an attempt to determine the structure of

future employment: it is merely a medium of information on the future.

There is, in theory, a third type of projection: an extrapolation. Labour demand in future years is estimated solely in relation to its development in the past. Thus it is assumed that in the future the same factors as in the past will govern the level of employment and its distribution by, for example, occupation, and that the proportionate impact of these factors will be the same. The result is a reference projection established for a specified future year. This projection is a theoretical one and there is no real prospect that it will prove to be accurate; it can, however, be used as a basis for analysing the causes of change, each of these causes being analysed separately and its effect on labour demand assessed.

These three types of projection must be clearly distinguished from one another. Experience shows that in a good deal of projection work on employment carried out throughout the world they are confused. In some cases the projected trend of employment is based on needs related to output targets; in others, in the absence of targets for a given sector, the probable trend is assessed or a projection of past trends is made, for want of anything better. Of course, such situations cannot always be avoided but it is important that they should be clearly identified.

## *2. Projections differentiated according to the mode of labour distribution*

Four main criteria for classifying the employed economically active population may be distinguished: status, sector of economic activity, occupation and skill, and level and type of training. A labour demand projection can theoretically use any of these classifications, but the practical value of some of them is limited.

An employment projection by status is of no value at all. A distribution among heads of enterprise, family helpers, employees in the private sector and those in the public sector falls short of being a precise analysis of the future trend of employment, and the results cannot be used to define an employment or education policy. Moreover, the kinds of training required are, in some cases, the same, whether the workers are employees or heads of enterprises. This applies, for example, in the building trades — mason, plumber, electrician. No employment projection so far made seems to have used this criterion for the classification of the economically active population.<sup>3</sup>

There has, on the other hand, been a considerable amount of work on distribution by sector of economic activity. Such projections cannot easily be used to define employment policy, because a single sector of economic activity may employ workers of very different occupations. In the textile industry, for example, there are engineers and skilled textile workers, but also electricians, mechanics, and clerical workers. The value

of a knowledge of the future distribution of the economically active occupation by sector in determining requirements by occupation varies greatly. However, even if it proves to be insufficient, this projection method is an essential stage in a more complex operation, for two reasons: firstly, projecting methods differ greatly depending on the major economic sector considered — future employment in agriculture cannot be estimated in the same way as employment in industry or in the services sector. A distinction has to be made at the start, at least among these three sectors. A comparison of labour demand and supply by major sector in the initial stage may well show a significant distortion as between the employment needs of the population and the manpower needs of the economy. This will demonstrate the inadequate growth of certain sectors of the economy, and a new plan, more ambitious with regard to the growth prospects of the economy, will have to be established. Secondly, it is frequently necessary to obtain an estimate of the total level of employment in a given branch of the economy before a distribution of the population by occupation or level of skill is available.

The most useful distribution of the economically active population for employment policy purposes is that by occupation or level of skill. Most recent employment projections are based on this criterion.

The number of distinct occupations or levels of skill allowed for varies greatly from country to country: some have adopted a very long list of occupations — over 100 and in some instances 200; others allow only for the ten major occupational groups of the standard classification of the International Labour Office. Where there is a classification by levels of skill, the major occupational groups are cross-referenced with the levels of skill, if they cover more than one level, as is usually the case with production-process workers. As projection methods are different depending on the degree of precision desired, a choice has to be made at the outset.<sup>4</sup>

The distribution of labour demand which is most useful for the purpose of educational policy is that by level and type of training. These terms have been defined earlier. Unfortunately, it is particularly difficult to prepare projections on the basis of that criterion. The manpower requirements of a given sector of the economy cannot be projected directly from such a break-down. These needs, in so far as they can be analysed, are related to occupations: engineers, clerical workers, electricians. In certain cases, these occupations do correspond to specific levels or types of training, but this is not always the case. Many occupations can be practised by persons having widely varying levels and types of training. This applies to all clerical jobs, whatever their rank — chief of personnel or skilled clerk. Usually the necessary transposition has to be made at a later stage, by means of a cross-tabulation

<sup>3</sup> Forecasts by status may nevertheless be useful for sociological research on the situation of the forms of organization of a society.

<sup>4</sup> This subject will be considered in detail in chapter V (sections B and C), in which projection methods in the construction and services industries are reviewed.

in which specific levels and types of training are equated with occupations.<sup>5</sup>

### 3. Differentiation by length of the projection period

The length of the projection period strongly influences the choice of methods. There are three types of projection to be considered.

A one-year projection is of use only for employment policy: education policy requires much longer-term projections, because the effect of any measures taken is not felt until some years later, when those having the new qualifications leave schools and universities. Short-term projections may be useful for fixing a rate of increase for output for a single coming year which will be compatible with the maintenance of full employment, or for determining the broad outline of the recruitment policy which the public manpower authorities will have to adopt in order to meet the immediate needs of the economy quickly.

Five-year or seven-year projections are made, more often than not, as part of national economic planning. The period of implementation for most plans falls somewhere between the two. Hence the analysis of the future evolution of employment can be fairly accurate, since a considerable amount of documentation on trends in the factors which govern the level of employment is available. In this case the projection period is probably not as long as the period needed for the implementation of an education policy; it is, however, sufficiently long to enable the structures of employment in a period distinctly different from the current period to be studied. The advantage of good documentation makes up for the shortness of the period.

For periods over seven years, employment projections can only be very sketchy. It is rarely possible for the prospects of economic development to be analysed in great detail for ten years ahead. All that can be produced are global projections for a few groups of occupations or levels of training, based in turn on crude economic projections and amounting to no more than indications of trend.

Depending on the choices to be made in each of these categories the methods used to determine the future trend of labour demand will be very different: a general account of these methods follows.

## D. MAIN METHODS OF PROJECTING LABOUR DEMAND

The methods are of two main types: the direct and the analytical.

### 1. Direct methods

The fundamental principle is to select certain economic data regarded as characteristic and to deduce from the probable or desired changes in those data the broad outlines of labour demand trends. The justification for

the procedure is the existence of statistically demonstrated correlations between changes in these characteristic data and those in employment. Various formulas have been used in this type of method, depending on the number and the nature of the economic data selected.<sup>6</sup>

#### (a) Harbison method<sup>7</sup>

This works on a very simple principle; it relates changes in employment to changes in national income. Three fundamental correlations are assumed; the growth rate of total employment is about half the growth rate of national income; the growth rate of demand for very highly skilled manpower is generally double the growth rate of national income; and the growth rate of middle-level skilled manpower is about three times the growth rate of income.

This method, based on observation of statistical series, can be applied only to long-term projections, since these correlations yield no values over two or three years; for so short a period, factors other than income movements come into play. The projections produced cover only two groups of occupations, very highly skilled occupations and those immediately below them on the scale of skills. They are, therefore, global projections which distinguish, not between specific occupations, but between groups representing a certain level of training. Projections prepared in this way can serve as a useful guide for education policy, by indicating the total long-term needs for types of manpower for which extensive education is a prerequisite, but they are of no help in formulating employment policy or vocational training policy for a period of five years ahead.

#### (b) Econometric methods

More complex methods have been devised which employ an econometric approach. The principle underlying this work is, according to J. Mouly,<sup>8</sup> that, subject to differences associated with country size, there is a well-defined growth path for each sector of the economy. When a marked deviation from the normal composition of production is recorded in a country, there is every probability that the lagging sectors will begin to grow at a more rapid pace than the normal in order to approach that normal composition.

The work on this subject was inspired by the research of H. B. Chenery.<sup>9</sup> In a geographical regression analysis

<sup>6</sup> J. Mouly, "An approach to some technical problems of manpower planning", *International Labour Review*.

<sup>7</sup> F. H. Harbison, "The elements of human resource development planning and the integration of manpower planning with general economic development programming", *Lectures on the Labour Force and its Employment; delivered to First Study Course; 17 September-7 December 1962* (Geneva, International Institute for Labour Studies, 1963).

<sup>8</sup> J. Mouly, *op. cit.*

<sup>9</sup> Hollis B. Chenery, "Patterns of Industrial Growth", *American Economic Review*, September 1960, pp. 624-654; Hollis B. Chenery, "The Process of Industrialization", document submitted to the World Congress of the Econometric Society, Rome, September 1965; and Hollis B. Chenery and Lance Taylor, "Development patterns among countries and over time", the *Review of Economics and Statistics*, vol. L, No. 4, November 1968, pp. 391-416.

<sup>5</sup> This subject will be studied in detail in chapter VI, which deals with ancillary estimates.

covering fifty-one countries, Chenery noted that there was a well-defined pattern of sectoral distribution of production and that it was a function of *per capita* income and population. There have been various applications of these principles to employment projections, differentiated only in the choice of independent variables. At the International Labour Office, for example, a study has recently been made in which this approach is used to determine the evolution of employment by sector. Two types of method were used: in one the evolution of employment is related to product *per capita* and in the other to the major components of final demand.<sup>10</sup> This ILO study shows that models introducing product *per capita* can serve as an instrument for predicting medium-term and long-term employment supply, particularly in countries for which the sectoral distribution of employment for a base year is known. Models introducing the components of final demand can provide only summary guidance on product allocation with a view to development of employment. These methods may, however, be useful to countries lacking adequate statistical data for detailed work on employment projections. Any projections so made must necessarily be of a summary nature. The number of separate sectors considered is always fairly small.

However, while these methods, based as they are on the computation of correlations between employment and certain economic magnitudes, cannot yield sufficiently detailed employment projections, they can be very useful in analysing certain aspects of the evolution of employment, such as the links between sectoral and occupational labour demand and the evolution of production, productivity or other economic magnitudes — energy consumption, for example — in certain branches. The principle involved then becomes very useful and it is for that reason applied in certain phases of the calculations associated with the analytical methods of projecting employment.

## 2. Analytical methods

The principle of these methods is that of analysing in as much detail as possible the factors which govern the creation of employment opportunities. Instead of trying to construct a simplified model which will make it possible to predict employment on the basis of aggregate economic magnitudes, this approach tries to follow in detail the process by which labour demand is determined.

The outline of these methods is: estimation of the production levels which will be attained in future years; evaluation of the productivity trend; estimation of aggregate employment; and distribution of employment by occupation or level of skill within each sector. At each stage of the process, the factors determining the estimates are analysed in depth. The analysis of each element is as detailed as possible, that is, the number of economic sectors considered individually is high, as is

the number of levels of skill or of occupations considered. However, limitations on the application of these methods to over-refined sub-groupings become apparent very quickly. Inadequate statistical documentation on the factors which determine the creation of employment opportunities, even in highly developed countries, the technical impossibility of projecting trends in extremely specific occupations — for example, opticians or radio repairmen — and the unimportance of such projections constitute valid reasons for not embarking on an analysis which would become bogged down in detail. What, for example, would this kind of projection be used for? It would have a considerable element of uncertainty; and it is, in any event, unnecessary to know requirements for such specific categories of personnel for ten — or even five — years ahead. Adjustments carried out by vocational training institutes every two years would be sufficient. Indeed, very often the problem solves itself, because the workers concerned need only a short adaptation period to learn new functions, provided they have had a satisfactory basic vocational training.

Analytical methods can, on the other hand, be used for medium-term employment projections by occupation or level of skill for a small number of occupational groups: perhaps ten to sixty. Here they can be very useful for defining employment and vocational training policy. This is where they differ from direct methods, which can only be used to develop broad guidelines for education policy. Numerous projection techniques, from very different fields, are employed in these methods: use of models, surveys at enterprises. The choice of technique depends on the constraints of the computation required in the various phases of the projection. Only the fundamental principle is common to all. Many countries have used these methods: the countries of the Mediterranean Regional Project, Argentina, France and Japan. Other examples might be cited.

The only problem to which the methods just explained are not applied is that of the one-year labour demand projection. No doubt an analytical method could be used for determining the evolution of output and productivity for one year ahead, but the results of this method are not necessarily satisfactory, because they do not take account of the degree of utilization of manpower or production capacity at the time when the projection is made. On the other hand, labour market testing methods, in which inquiries are made of a representative sample of enterprises, serve the very useful purpose of indicating the main features of the short-term trend of labour demand in the economy. This subject is outside the scope of this work; the reader is referred to the publications of the Institut für Wirtschaftsforschung (Economic Research Institute), Munich, and, for information on adapting labour market testing for use in studying short-term employment trends, to the surveys made by the Prognosis Institute (Employment Forecasting Institute), Statistiska Centralbyran, of Sweden and those of the Centre for the study of the economically active population of the National Institute of Demographic Studies (Institut National d'études démographiques), Paris.

<sup>10</sup> Y. Sabolo, *Sectoral growth of employment* (mimeographed document D.5.1969, of the International Labour Office, 1968).

E. FUNDAMENTAL PRINCIPLES OF THE METHODOLOGY  
ADOPTED IN THE MANUAL

(a) The analytical methods will be given prominence in this manual. The factors governing the level of employment and its distribution by occupation will therefore be analysed in as great detail as possible. In particular, the projection of labour demand will be closely linked with economic projections;

(b) Labour demand projections will cover all components of the economically active population and not only certain occupations regarded as important and studied in isolation — engineers or doctors, for example. To be consistent, the projections to be carried out require that an over-all view of the evolution of employment be taken;

(c) The methods proposed will differ for individual major sectors of economic activity. Three major sectors will be considered: agriculture, industry and construction, and services. The factors which determine the number and distribution of employment opportunities in each of these sectors differ greatly from sector to sector. That fact justifies resort to the most suitable methods in each case;

(d) Different methods will be proposed depending on the degree of economic development of a country. The characteristics of growth in an economy will not be the same for a country which has long been industrialized and for a new country: in the first case progress proceeds at an almost regular pace without radical changes in the economic structures, which gradually adapt themselves to new technical advances, whereas in the second case progress takes the form of a sudden breaking away from the former rate of economic

development, new structures being established within a few years. The factors to be taken into consideration in predicting labour demand are therefore entirely different in the two types of country;

(e) The methods proposed will vary according to the quality of the countries' statistical information;

(f) The criterion of occupation will be used in this manual and the methods used will therefore be those suitable for projections by occupation. Projections by sector will be dealt with only as one stage in the estimation of labour demand by occupation. The subject of the projection of demand by level of training will be dealt with in a separate section on the utilization of employment projections;

(g) In principle, the methods proposed will be those suitable for medium-term projections (five to seven years);

(h) The type of projection considered is the labour demand projection. However, some account will be given on the methods to be used when the projection has to cover the probable trend of labour supply rather than demand.

Accordingly, the remainder of Part Two of this manual will be devoted to reviewing methods of projecting medium-term labour demand by occupation, in relation to prospects of economic development and the nature of that development. A separate analysis will be made for each of the major sectors of the economy. On the basis of the principles listed above, the three sections of chapter V will deal with agriculture, industry and construction, and services. Chapter VI will cover the ancillary estimates required if the projections are to be used for the formulation of employment policy and education policy.