

The Future European Labour Supply

Employment & social affairs



The Future European Labour Supply

Employment & social affairs

Employment and European Social Fund

European Commission
Directorate-General for Employment, Industrial Relations
and Social Affairs
Directorate V/A.1

Manuscript completed in 1998.

The contents of this publication do not necessarily reflect the opinion or position of the European Commission, Directorate-General for Employment, Industrial Relations and Social Affairs.

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (<http://europa.eu.int>).

Cataloguing data can be found at the end of this publication.

Luxembourg: Office for Official Publications of the European Communities, 1999

ISBN 92-828-6432-4

© European Communities, 1999

Reproduction is authorised provided the source is acknowledged.

Printed in Belgium

PRINTED ON WHITE CHLORINE-FREE PAPER

ACKNOWLEDGEMENTS

This report is a summary of a longer report financed by the European Commission, DG V. We are grateful to the following people for assistance in the preparation of this report: Philippe Méhaut of Centre d'Etudes et de Recherche sur les Qualifications in Marseilles and Paola Villa of Università di Trento for expert advice; Claire Faichnie for research assistance; the staff of the European Statistical office for the preparation of special tabulations of the European Labour Force Survey, in particular Louise Corselli and Laurent Freysson; Alison Forbes and Fiona Coyle for work on the presentation of the report; Georg Fischer and Ruth Paserman of the European Commission for their help and support throughout the study; and the other participants in the expert meeting at the European Commission. We would also like to acknowledge the help and support provided by UMIST, in particular by the Manchester School of Management and by UMIST Ventures, in the administration of the project.

JILL RUBERY AND MARK SMITH
European Work and Employment Research Centre, Manchester
School of Management, UMIST

November 1997

TABLES OF CONTENTS

EXECUTIVE SUMMARY

1. INTRODUCTION	9
1.1 THE EMPLOYMENT RATE OBJECTIVE AND LABOUR SUPPLY	9
1.2 TOWARDS A COMPREHENSIVE FRAMEWORK FOR THE ANALYSIS OF LABOUR SUPPLY	10
2. THE SOURCES OF FUTURE LABOUR SUPPLY.	13
2.1 THE EMPLOYMENT AND NON-EMPLOYMENT RATE.	13
2.2 COMPOSITION OF THE NON-EMPLOYED.	15
2.3 DEMOGRAPHIC CHANGE IN THE EU.....	16
2.4 FUTURE LABOUR SUPPLY SCENARIOS IN THE EU.....	17
2.5 THE CHANGING PARTICIPATION PATTERNS OF YOUNG PEOPLE.....	17
2.6 PRIME-AGE WOMEN AND MOTHERS.....	20
3. SOCIETAL, SOCIAL AND INSTITUTIONAL INFLUENCES ON LABOUR SUPPLY	23
3.1 THE ORGANISATION OF THE FAMILY ECONOMY: A QUESTION OF PATH-SPECIFIC EVOLUTION OR CONVERGENCE?	24
3.2 THE ROLE OF THE STATE IN SHAPING LABOUR SUPPLY	24
3.3 THE ROLE OF OLDER PERSONS IN THE WAGE AND FAMILY ECONOMY	28
3.4 THE ORGANISATION OF THE EDUCATION AND TRAINING SYSTEM	30
3.5 THE ORGANISATION OF THE LABOUR MARKET	32
4: LABOUR SUPPLY QUALITY: IMPROVING THE SKILLS AND DECREASING THE MISMATCH BETWEEN DEMAND AND SUPPLY.	34
4.1 MEASURES TO ENHANCE THE OVERALL SKILL LEVEL OF THE EUROPEAN WORKING AGE POPULATION.	34
4.2 MEASURES TO OVERCOME SHORT TERM SKILL SHORTAGES AND BOTTLENECKS.	39
5: TOWARDS A LABOUR SUPPLY POLICY.	40
5.1 CHILDCARE AND ELDER CARE SUPPORT.....	41
5.2 SOCIAL SECURITY REFORMS AND WORKING-TIME POLICY.....	42
5.3 THE ORIENTATION OF EDUCATION AND TRAINING POLICIES.....	47
6. CONCLUSIONS: TOWARDS A COMPREHENSIVE FRAMEWORK	50
REFERENCES	53

Executive Summary

European labour supply policy needs to be concerned with ensuring:

- (1) a sufficient quantity of labour to provide a basis for economic growth and expansion
- (2) a more egalitarian sharing of employment opportunities so that more people are drawn into employment and fewer individuals and households are excluded from the labour market
- (3) a possible reversal or slowdown of the process of concentrating working life within an ever more compressed period, namely, from 25 to 55, which is incompatible with increasing life expectancy and increases the problems of reconciling work and family life
- (4) the improvement of the quality of the potential labour supply including both those currently in and those currently outside the labour market.

The focus of this study is to identify the institutional arrangements and policy scenarios which contribute to or inhibit the establishment of a high employment rate based on a high quality labour supply.

The analysis of the potential labour force must be focused on the non-employed working age population (age 16-64). The maximum potential EUR15 labour supply is taken as 80% of working age population. On this basis the potential labour supply not currently in employment constitutes 20.2% of total working age population.

Non-employment varies in its closeness to the labour market: some sources of labour supply are close to the labour market, for example the unemployed; others are outside but capable of being mobilised, for example mothers of school age children; and others are rather distant from the labour market, such as the permanently disabled. Three groups are particularly important for the future size of European labour supply: young people (a higher level of educational attainment reduces participation during education, but then stimulates higher participation), prime-age women (not only will participation increase simply because of generational effects, but women are also not fully utilised because many work part-time), and older workers with a reversal in the trend towards early retirement. Generational changes alone could be expected to contribute to a rise in the female employment rate of 2.6 percentage points by 2010, even after taking into account the negative impact on predicted employment rates of the shift towards older age groups within the working-age population.

Societal, social and institutional influences on labour supply include the organisation of the family economy, the role of the state in shaping labour supply as with the influence of the welfare state, the role of older persons in the wage and family economy, the organisation of the education and training systems, the organisation of the labour market, including the ease of leaving and re-entering the labour market, and working time arrangements.

Improving the effective quality of the European labour supply should include enhancing the underlying skill level of the population through initial education and training and through lifelong learning opportunities, and improving the match

between skills and employment opportunities by reducing underemployment (in hours and skill levels) and by reducing skill shortages caused by uneven geographical demand or institutional barriers to retraining and redeployment.

Three areas of policy are considered: Support for care work; social security and working time arrangements; education and training policies. Policy interventions need to be coherent and comprehensive, but they also need to respect the path-specific evolution of the different Member States.

- Support for care work should be part of a co-ordinated strategy on work and care and different phases of care. Policies need to be flexible and integrated with other policies relating to reform of the welfare system and wage structures.
- Reform of Social security systems aimed at "making work pay" needs to take *into account the changing social, family and labour market systems*. This includes the establishment of a more universal and inclusive social protection system, the minimisation of the use of means-tested benefits, and the reward of flexible working with more rather than reduced rights.
- *Obstacles to more equal participation in wage work within households such as long working hours, wide wage differentials, and excessively low or high wages should be removed*. Support should be given to the move towards dual earner households and a new gender division of both paid and unpaid work should be encouraged.
- Active labour market policies should be made available to the inactive as well as to the unemployed.
- In order to reverse the trend towards early retirement, a broad based policy programme is required aimed at *changing the culture of society so that early retirement is no longer the socially accepted method of reducing employment levels*. This programme should include legislation against age discrimination, and policies to discourage early retirement.
- Post compulsory secondary school education should be generalised and the status of vocational training improved.
- Lifelong learning opportunities need to be made available to those outside as well as to those inside the labour market and to those in less skilled as well as in more skilled jobs. *Particular attention should be paid to mechanisms to encourage training provision in atypical jobs and among employees of small firms*.
- Policies for unemployed low-skilled workers should not focus on the expansion of the low-skilled sector but on how to reduce underemployment in the labour market, using this upgrading of workers as the main means by which unskilled jobs are released for the unemployed

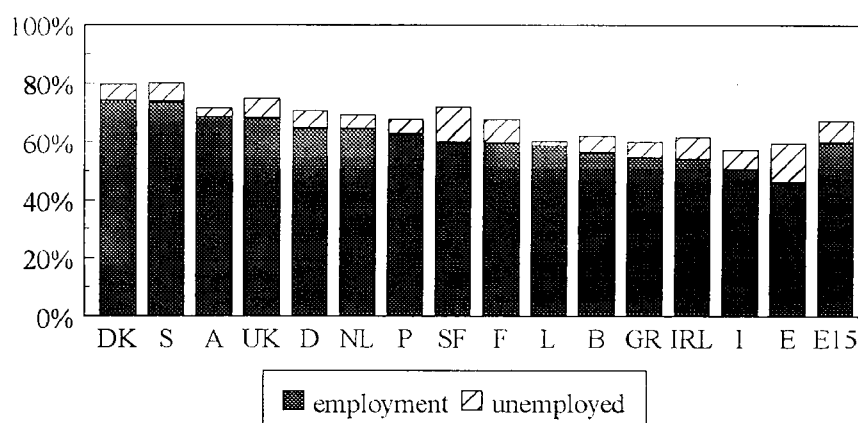
1. INTRODUCTION

1.1 The employment rate objective and labour supply

This study addresses labour supply issues associated with the objective of raising the European employment rate. This objective has been central to EU employment policy since the 1993 white paper *Growth, Competitiveness and Employment*. The prospects for labour supply in Europe, defined in broad terms to include population trends, age and gender participation rates, working-time patterns, and educational and skill levels, must be central to raising the European employment rate. The low European employment rate in comparative terms is due more to low participation than high unemployment. Absorbing all the current unemployed into work would raise the European employment rate from 59.8% of the working age population to 67.1%, while aiming for convergence with the employment rate in Denmark, one of the countries with the highest female participation rates, would bring the rate up to 73.9%. Moreover, the wide variations in employment rates between EU members would only narrow slightly if all the current unemployed were absorbed into employment (see figure 1.1). Labour supply issues also take on importance in providing the right skill base for effective European development and expansion.

Labour supply adjustments have played a major role in shaping employment and unemployment patterns over recent years, both raising and lowering measured participation rates. Most new jobs have gone to those outside the labour force, boosting participation rates, while measured unemployment rates, particularly among the young but also among older male workers, have been reduced by an increase in the population shares moving into inactivity. Such changes have also facilitated changes taking place in the structure of labour demand, for example towards part-time work.

Figure 1.1: Distribution of total working age active population by status, 1995.



Note: countries ranked by working age employment rate
Source: European Labour Force Survey, 1995.

Current projections of both labour supply and labour demand imply a continuation of these trends: demand for female employment is projected to rise and that for male

employment to fall (ERECO 1994). Similarly most of the projected growth of labour supply, whether under assumptions of low or high labour supply growth, is expected to be female with male labour supply declining (IFO 1994, 1995; TNO 1996).

Recent years have seen rapid and, by historical standards, dramatic changes in labour supply behaviour, not only in female participation rates, but also in youth and older workers' participation rates. This rapid pace of change in most countries calls for a consideration of the underlying restructuring taking place in the processes of producing and reproducing a wage labour supply. This analysis should include the organisation of families and households, the provision of caring services and support for those outside the labour force, and the system of educating and skilling the labour force.

1.2 Towards a comprehensive framework for the analysis of labour supply.

The main objective of the study will be to develop a comprehensive framework for the analysis of labour supply capable of being used to address policy issues. Three main elements to the analysis of labour supply have been identified for exploration: sources of future labour supply; societal, social and institutional influences on labour supply; and the issue of labour quality. To develop a comprehensive analysis which encompasses these three elements, an appropriate methodological framework is required. Several major methodological issues need to be taken into account in predicting European labour supply.

In the absence of an underlying universal model of labour supply behaviour, projections of labour supply have, by default, had to rely on 'atheoretical' assumptions concerning the probability of the continuation of past trends, of convergence and divergence across nation states, and of the existence of distinct cohort behavioural effects. More attention needs to be paid to the basis for these assumptions and in which areas, for example, expectations of convergence or divergence, or expectations of progressive trends or cyclical trends would appear more reasonable. To achieve this objective we need a framework which takes into account societal differences but which allows for change over time within societal features and characteristics.

- *The failure to identify so-called robust labour supply models suggests that differences in societal systems across Europe are more fundamental than those that can be attributed to differences in demand conditions or to differences in aspects of public policy.*

This proposition supports the notion of societal systems consisting of an interconnected network of institutions and social norms, such that the transfer of individual parts of one societal system (an institution or a policy measure) to another cannot be predicted as its impact depends on a set of interlocking factors (Maurice et al. 1986; Sorge 1991; Rubery 1992;1994). Results which fail to find a stable universal relationship between participation and, for example, tax systems, fertility rates or part-time employment opportunities also tend to confirm the idea that societal systems follow a path-dependent trajectory. Thus even though all European Member States tend to experience common external shocks, to be exposed to common external influences and ideas and face often apparently similar internal pressures, the ways in which societal systems adjust to or accommodate these pressures depend upon their specific characteristics and their historical pattern of evolution and change (Rubery 1992).

- *An approach to labour supply which is sensitive to the societal systems approach must recognise the significance and importance of societal norms and institutions, while still remaining sufficiently flexible to allow for change in social norms and societal institutions.*

A static approach to societal systems is inappropriate. There are quite major changes taking place in the explicit policies of different nation states relating to labour supply: changes, for example, in retirement schemes, in support for families through the welfare system, as well as changes taking place in the employment system. These changes, to some extent, challenge the notion of distinctive societal systems and thus require analysis of the factors leading to changes in public policy and institutions (particularly those which seem to be working against the grain of the societal model), the extent to which these policy developments are part of a process of convergence or divergence (taking into account the starting points and the rates of change as well as the direction of change), and a prediction of responses to policy change which may, of course, differ between Member States.

- *Adding a dynamic dimension can seriously complicate the issues and prevent the description of a societal system using standardised descriptions of typical families, or typical transitions from school to work etc.*

In developing this dynamic dimension, account must be taken of the fact that changes observed in labour supply behaviour may only be short term or cyclical responses to economic and social conditions, and may not fit with underlying long term preferences. Thus rising rates of early retirement may not imply a change in social norms towards earlier retirement but an expedient to deal with current downsizing of employment. Longer schooling might be a response to fewer jobs rather than a change in societal expectations in the preparation for work. Preferences for more work and longer working hours may also reflect generalised insecurity - an added worker effect - and not an underlying preference for ever increasing amounts of paid work. Yet disentangling the cyclical from the longer term is complicated by the possibility that changes intended as short term responses may relatively quickly become embedded in social expectations and institutions.

- *Thus a further problem for labour supply analysis is to identify when an observed change in social behaviour can be regarded as a relatively irreversible change in an institution or as a short term expedient response to general economic and social conditions.*

Finally there is the need to develop an analysis of the development of labour supply which is sensitive to, but not determined by the evolution of demand. The methodology adopted by the societal systems approach focuses on mutually conditioning processes in the evolution of supply and demand. Labour supply is not conceptualised independently of demand as the evolution of the labour supply is a function of the institutions and form of labour demand. Now in many respects an approach which identifies these processes as mutually reinforcing and shaping is a strength. The creation and development of a wage labour force has historically been the result of both the forces of demand, shaping demands for wage labour, and a reconstruction of the social reproduction sphere. Moreover the quality of the labour supply is inextricably linked to the experience of labour within the demand sphere; restrictions on access to employment or the creation of narrowly specified jobs can result in skilled or trained labour becoming deskilled or even apparently

'unemployable'. Thus to consider labour supply independently of demand may not be regarded as appropriate or viable.

- *While the mutually conditioning aspects of supply and demand must be recognised, we also need to consider the conflicts and tensions between those two tendencies.*

These conflicts and tensions may take two forms involving either a straightforward mismatch in the composition of demand and supply or a tendency for the demand side of the economy to undermine efforts on the supply-side to boost the share of skilled workers in the economy (for example through redundancies of skilled workers or failures by employers to make use of newly trained entrants).

- *The societal system approach requires modification to take into account processes of change over time, the likelihood of the presence of contradictions, conflicts and tensions within any society and the need to differentiate the dynamic evolution of demand from that of supply.*

One possibility is to combine the societal system or employment system approach for explaining differences between societies (Maurice et al. 1986) with the 'relative autonomy' approach to labour supply (Humphries and Rubery 1984). This provides a related but somewhat different approach which overcomes some of the problems associated with the societal systems analysis.

- *Under the 'relative autonomy' approach the organisation of the supply side of the economy is taken as responsive to the level and pattern of labour demand, but has its own dynamic which is not necessarily controlled by variations within the demand side nor necessarily easily manipulated by public policy.*

Thus the labour supply structure is neither entirely dependent upon economic demands and conditions, nor treated as a cultural given that is autonomous of the demand side. A greater role is given to human agency and aspirations than is present in either economists' labour supply analyses based on mechanistic (rational economic man) responses to economic stimuli or in those which accept the influence of culture and institutions, but which assume individuals' aspirations and behaviour are predetermined by conventions and customs.

Box 1.1 Recent examples of the 'relative autonomy' of the supply side include:

- the rise in the demand for female labour which led to rising participation of women in the wage economy and in turn to major changes in the organisation of the family economy and in women's aspirations and attitudes, none of which can be easily reversed;
- the rises in participation in higher education and in early retirement initially to cope with recent recessionary conditions but which may lead to long term changes in preferences of both young and older people, such that these changes become institutionalised as higher school leaving ages (or higher qualifications required for entry into employment) and earlier retirements ages, independent of current labour demand conditions.

This approach thus contrasts with the two dominant modes of labour supply modelling, the one which treats differences between countries as givens, and the other which treats the family economy as adjusting smoothly to variations in labour demand.

These methodological considerations provide an initial starting point for developing a comprehensive framework for the analysis of labour supply. This framework will be developed first by looking at three main issues with respect to the future European labour supply; the sources of future labour supply (chapter 2), the societal, social and institutional influences on labour supply (chapter 3), and the quality of labour supply (chapter 4). Finally in chapter 5 we address the policy implications of our analysis by reference to some examples of specific policy areas and summarise the overall implications of the analysis for the future quantity and quality of European labour supply.

2. The Sources of Future Labour Supply.

2.1 The employment and non-employment rate.

Taking the employment rate, measured as a percentage of the working age population, as the main indicator of labour market performance in the European Union implicitly accepts that the population of 15-64 year olds is the ideal measure of all those who could be potentially involved in the labour market.

The simple employment rate, as a measure of labour market performance, is not without its problems. The abundance of short part-time jobs in some EU countries means that a simple count of the numbers employed may be deceptive. Part-time jobs accounted for more than half of all new jobs in the EU (E12) between 1983 and 1994 and in some cases limited or reversed the impact of the fall in full-time employment (Bettio et al. 1996). The non-employed category is likely to include more individuals as potential labour supply than could be mobilised in practice, while on the other hand the employed may also include persons who would wish to provide additional labour in terms of hours. However, the non-employed category, as a measure of the total labour reserve, does provide an all inclusive measure of the labour supply potential without the limitations associated with a specific definition of unemployment.

The use of the working-age population as the denominator for comparing economic activity statuses leads to different results when compared to traditional measures. For example, unemployment rates (population measures) are lower than the conventional measure, calculated as a share of the labour force as even in the most active age groups there is never 100% of the group in the labour market. This variation is particularly relevant for labour market groups with low activity rates, for example women in some countries and young people. A low share of a population cohort may be unemployed but still produce a high measured unemployment rate using the labour force measure if total activity levels are low. However, the advantage of the working-age population as the denominator is that the non-employed and employed sum to what we can be regarded as the all inclusive measure of the potential labour supply.

Table 2.1: Schematic representation of potential labour supply by gender and age

Outside the labour market.			
	Distant from the labour market	Could be mobilised in the short term	Close to or already in the labour market
Young people aged 15-24 years.	M+F: university or higher education;	M+F: tertiary, post-compulsory and vocational education;	M+F: unemployed, M+F: work placements/traineeships for unemployed
	M: conscripts F: carers for young in male breadwinner countries	M+F: discouraged workers and the "fully" inactive F: mothers of school age children	M+ F: involuntary part-timers.
Prime-age group aged 25-54 years.	M+F: permanently sick and disabled	M+F: discouraged workers	M+F: unemployed, M+F: Work placements / traineeships for unemployed
	F: carers for young in male breadwinner countries F: some informal economy workers	M: informal economy workers F: some informal economy workers F: mothers of school age children	F: unemployed wanting work (excluded from statistics by domestic commitments) F: involuntary part-timers.
Older persons aged 55-64 years.	M+F: permanently sick and disabled	M+F: discouraged workers;	M+F: unemployed M+F: involuntary part-timers.
	M: early retired on high benefits F: long term housewives F: informal economy workers	M: informal economy workers; M+F: early retired on low benefits; M: early retired/unemployed categorised as sick/disabled for benefits F: early retired in some countries	

There can be no expectation of mobilising the whole of the non-employed population into the active labour supply. There are many individuals who are classed as inactive but who are not necessarily underutilised for a variety of reasons; individuals may not be able to, or wish to, supply their labour and these reasons will vary by age and gender. For example, the sick and disabled may be limited in the volume of work they are able to supply, if any at all. Those individuals in full-time education must be regarded as investing for future labour market activity and currently unable to work (OECD, 1992). Indeed those who are more educated, especially women, are more likely to participate more fully in the labour market than their less educated counterparts.

As the above discussion has suggested, not all of the non-employed would be prepared or able to supply their labour immediately. There is a hierarchy in the ability or willingness of the groups to be mobilised. Some may already be in the labour market or very close to the market. Others could be regarded as currently outside the labour market but able or willing to be mobilised at relatively short notice. Still others are much more distant from the labour market in that they are unlikely to be mobilised into work in the short term, whatever the level of labour demand.

2.2 Composition of the non-employed.

Across countries there is considerable variety among the three groups as identified in table 2.1. For the younger age group women make up the majority of the non-employed in all countries except Sweden where the shares are equal and Finland where there is a slightly higher share of men (53%). The highest female shares are found in Denmark and Greece at 57% and 56%, respectively. The even share of the non-employed is less evident when we look at the unemployed and inactive separately.

In the prime-age group of 25-54 year olds, women dominate the non-employed in all countries. Inactive women account for more than half of the non-employed in all Member States except the three Scandinavian countries. The lower share of inactive women in this age group in Sweden, Finland and Denmark means that inactive men account for more than a fifth of the non-employed compared to 15% or less in all other countries except Austria.

Among those aged 55 and over, the inactive dominate the non-employed with the unemployed of either sex each accounting for less than 5% of the non-employed in all countries except Sweden (6.7% and 6.8% for men and women respectively).

These results clearly show that any potential labour supply among either women or men of the older age group would have to be mobilised from the inactive rather than the unemployed. For the prime-age group the gender differences are stronger and there are greater numbers of women than men who are inactive. However, the relatively small share of the unemployed among the non-employed in all countries illustrates that mobilising the inactive in all age groups will be necessary to increase the labour supply "close" to employment.

Within each EU country except Sweden, prime-age women make up the largest share of the non-employed, accounting for 30% at the E15 level. In five countries prime-age women account for more than a third of the non-employed and it is only in Sweden, Finland and Portugal that the share is a quarter or less. In Sweden prime-age women make up over a fifth of the working-age non-employed, just less

than for young men and slightly more than for young women. The prime-age male share of the working-age non-employed ranges from just 6% in Luxembourg and Greece to 20% in Finland. In eight of the 15 countries the share of non-employment accounted for by men aged 25-54 years was between 10.9% and 12.6%.

Educational composition of the non-employed.

Analysis of the non-employed by educational attainment can indicate the quality of the future potential labour supply. If the non-employed are less educated than those in employment this would show that they may not possess the requirements that employers may be demanding. However, if the non-employed are equally or more educated than those in employment then there is possibly an untapped resource of quality labour supply that is currently underutilised.

At the European level more than a quarter of non-employed men and 30% of non-employed women of working age are in the category of very low level of educational attainment compared to just 20% and 15% for the employed, respectively. The greatest concentration of the non-employed is found in the low educational attainment category at 45% and 46% of non-employed men and women, respectively. However, these shares are similar to those for the employed, as are those for the medium level of education. However, the non-employed include much lower shares of the higher-educated population, with just 6.7% of non-employed women and 8.4% of non-employed men in this category compared to a fifth of men and women in employment classified as higher educated.

Women clearly dominate the non-employed in all countries as a result of the traditional division of caring responsibilities in the home. The analysis of the educational composition of the non-employed has shown that although this group is generally less educated than those in employment, they still provide a potentially rich resource of high and medium-educated labour supply. Over 45% of the prime-age non-employed have medium and higher education, but women outnumber men two to one within this educated reserve. There is scope, therefore, through mobilising prime-age women into the labour market and by reversing trends to early retirement, to increase the supply of educated labour.

2.3 Demographic change in the EU

The changing structure of the European population is clearly one of the key reasons for concern over the potential future labour supply in the EU. In all countries birth rates have fallen and people are living longer, raising the average "age" of the population. Such population trends reinforce the need to utilise more effectively the working-age population, as currently defined, drawing on those presently outside the labour market, for example women, the long term unemployed and the early retired. However, there is a danger that concern with the "ageing" of the population and related labour supply issues will deflect efforts from other issues that currently affect European labour markets such as mass social exclusion with high levels of unemployment and persistent inequality between women and men.

Policies to raise long term employment growth need to adopt a longer time horizon and to shift the model of labour market activity towards a higher level of involvement for all: short term policies to mobilise a reserve army, akin to the mobilisation of women in wartime, will not be sufficient to bring about the changes in the social and institutional structure appropriate for a higher employment model.

The size of the working age population will remain fairly stable, but all countries will face challenges from a changing population structure to a greater or lesser extent including;

- more people above retirement age
- the working-age population skewed to the older age groups
- a fall in new young entrants to the labour market

These patterns will effect the future levels of dependency between those of working age and the young and old.

Predicting future demand patterns is highly complex and difficult so it would be impossible to predict what the relationship between the employment rate and the dependency ratio would be in ten or even 15 years time. However, we can say that countries with a predicted large increase in the dependency ratio (Greece, Italy, Germany) or more modest increases combined with a current high dependency ratios in comparison to the current employment rates (Belgium Spain, France and Sweden) could face some of the most difficult problems balancing the expansion of the dependent elderly population against a relative small share of the population that is in work.

2.4 Future Labour Supply Scenarios in the EU

The discussion earlier in this chapter outlined three major groups of the population that will have key parts in the development of the future labour supply in the EU; young people, mothers and prime-age women, and men over 50. Young people will determine both the quantity and quality of the future labour supply. Furthermore, the increasing trend for young people to remain in education has an effect on the labour supply of new entrants to the labour market. Women have accounted for the largest share of employment growth over the recent decades and their domination of core age non-employment means that they will play a major role in shaping future labour supply trends. Older working-age men have seen their employment rates fall over recent decades, almost as fast as women's rates have increased and future patterns of activity of the 50-64 group will have a key impact on the future labour supply from the male working-age population. The following sections explore the impact of current trends within these three groups on the future labour supply and some alternative scenarios to increase the potential labour supply.

2.5 The Changing participation patterns of young people.

The current patterns of young people's activity and future trends in the labour market will play a key role in the future labour supply in the EU. These trends will affect:

1. the share of young people who are inactive as a result of education
2. the future quality of labour supply
3. the share of young people who bridge the employment and non-employment categories by combining study and paid work.

Falling youth employment

Examination of the pattern of young people's activity over the 1980s shows how in nearly all countries there was a rise in inactivity and a slightly smaller fall in unemployment (as a share of the population) while employment rates tended to fall, and this was the case for both women and men. Only Denmark, the UK and the Netherlands saw the share of young persons in unemployment and inactivity fall and employment rates rise for both women and men between 1983 and 1992 (Rubery et al. 1998).

Over the 1980s the importance of youth unemployment as share of all unemployed declined in all countries (except for Greek men) to account for less than a third at the E12 level by 1992 (Rubery et al. 1998). However, unemployment rates do not reflect all of those left out of the education system and unable to find a job. There is also a problem of total inactivity among young people which can only really be interpreted as rejection of either the labour market or education route. Such a phenomenon will have serious consequences for the future as this age group will be increasingly relied upon to be providers for the older-age population as dependency rates rise.

Increasing involvement in education

Data from the European Labour Force Survey for twelve Member States between 1987 and 1995 reveal an increase in the share of young people in education (Freysson, 1996). We find that over the eight years there was an increase in the share of the 15-24 year old population in education, from just less than half (49%) to nearly three fifths (59%). There is some variation across countries but in 1995 the UK was the only country where less than 50% of young people were in education, whereas in 1987 there were six countries with a below half share.

There are several potential explanations for the increasing share of young persons in education. The downturn in economic conditions is widely regarded as one of the key factors in encouraging more young people to remain in education (Gambetta, 1987). One of the results of the depressed economic conditions has been the collapse of the youth labour market in many countries with limited job creation, fewer jobs for the unskilled and the expansion of female labour supply to fill many of the new jobs. Young people who do not choose to enter education face greater difficulties in finding jobs. This pattern has led to an increase in the share of young people in education and to an increase in jobless rates for those who remain active.

There are other rationales for the increase in the share of the youth population in education. As living standards increased over the post war period so it has become possible for young people to extend the period of education with less pressure to become an earner and pay their way. Such a trend is also a reflection of the greater aspirations that young people have and the realisation that a better education is a means to a higher level occupation or job. However, such trends pose a potential problem for future labour market policy-makers who may find it difficult to increase the employment intensity of growth and at the same time satisfy the aspirations of a more educated labour supply looking for more varied and interesting jobs.

Education and employment

The pattern of increasing participation in both education and the labour market is particularly evident in countries such as Denmark, the Netherlands and the UK. Indeed in the Netherlands and Denmark working students affected the employment rate in 1992 by between three and five percentage points (Rubery et al. 1998). This trend can be regarded in both a positive and negative light. Such work can provide students with work experience so that when they enter the labour market on a full-time basis they are more attuned to the working environment. In a period when young people spend more time in education and there are pressures on public spending as a result of fiscal policy, combining work and study may ease funding of increased length of time in education. Furthermore, combining work and study at a young age may allow for a positive attitude to lifelong learning in the future as some have suggested continuous learning in a rapidly changing labour market will be

increasingly the norm for those who want to keep up and remain successful in the labour market (C.E.C., 1993).

However, there are also potentially negative consequences of the increased involvement of students in the labour market. The supply of a well educated flexible group of labour that is able to rely in part on family or state subsidies could have a negative effect on the work opportunities of those not in the education system. Those young people who look for work straight from school could be edged out of the market by working students willing to take part-time lower paid casual jobs.

Increasing quality of labour supply

The impact of the increased educational attainment of the youth cohort is hard to predict. Across EU countries the differences in the educational systems mean that there is no one age when individuals can generally be regarded as reaching a peak attainment. Furthermore the extension of the period of time over which young people gain their education means that there is no one model in operation within countries and the period over which a significant share of the population are in the educational system continues to increase.

Table 2.2 Young people aged 15-24 both in education and inactive, 1995-2010.

	<i>Share inactive and in education</i>			<i>Net change 1995 to 2010</i>		
	<i>1995</i>	<i>2010 with same rate of change</i>	<i>2010 with variable rate of change</i>	<i>1995 shares with 2010 population</i>	<i>Same rate of change</i>	<i>variable rate of change</i>
E15	46.9%	65.5%	60.0%	-13.3%	24.0%	13.7%
E12	47.3%	65.8%	60.7%	-14.1%	22.3%	12.9%
Belgium	62.7%	79.1%	79.1%	-3.5%	21.9%	21.9%
Denmark	22.9%	32.3%	32.3%	-5.8%	32.9%	32.9%
Germany	42.6%	59.0%	59.0%	4.6%	44.8%	44.8%
Greece	54.7%	67.7%	67.7%	-25.7%	-8.1%	-8.1%
Spain	54.0%	74.6%	74.6%	-36.4%	-12.3%	-12.3%
France	60.2%	92.2%	76.2%	-6.0%	44.1%	19.0%
Ireland	50.3%	65.6%	65.6%	-24.3%	-1.4%	-1.4%
Italy	52.9%	75.3%	64.1%	-29.7%	0.1%	-14.8%
Luxembourg	53.1%	84.0%	68.6%	24.8%	97.6%	61.2%
Netherlands	33.2%	31.2%	31.2%	-2.1%	-7.8%	-7.8%
Austria	35.5%	56.5%	46.0%	-4.7%	51.6%	23.4%
Portugal	51.4%	97.0%	74.2%	-29.6%	32.7%	1.6%
Finland	43.6%	64.6%	54.1%	3.0%	52.6%	27.8%
Sweden	41.0%	62.0%	51.5%	10.5%	67.1%	38.8%
UK	28.4%	41.7%	41.7%	3.9%	52.6%	52.6%

Note: See text for details of assumptions.

Source: Calculations based on European Labour Force Survey and Eurostat baseline population projections

Increasing quantity of students.

We can now turn to exploring the impact of the changes in the level of involvement in education. Holding the share in education constant with a changing population structure, we estimate that there would be a net fall of 14% in the size of the population both inactive and in education in comparison with 1995. (table 2.2). There would also be a net fall in each country with the exception of the UK, Luxembourg, Finland, Sweden and Germany. The assumption of the continuity of growth rates may be too strong. We have calculated an alternative scenario under which we assume:

1. a continuation of 1987-1995 rates of change up to 2010 for countries where the rate of increase in shares of education was below the E12 average between 1987 and 1995;
2. a reduced rate of growth, to half the previous level, in countries which have had above average growth rates;
3. for the new Member States, for which we have no longitudinal data, a rate of growth assumed to be half the E12 growth rate.

This second scenario produces a rise of 13% at the E12 level in the number of young people in education and inactive (13.7% for E15). At the national level there are ten countries which would experience net increases in the numbers in education and five where either declining cohort size or falling shares of inactive students would produce a net fall in the size of the inactive student population. Table 2.2 also shows the predicted shares under each scenario. By 2010 as a result of the variable rates of change in the shares the range extends from just 31% in the Netherlands to over three quarters in Belgium and France. Under the constant rate of change scenario, the range varies from just less than a third in the Netherlands to 97% in Portugal.

2.6 Prime-age women and mothers.

'Prime-age women clearly provide the largest potential labour supply source in the EU. If the trends over the 1980s and 1990s continue up until 2010, women's employment growth will continue to be the main contributor to rising employment rates in many countries. Even if we assume no further changes in underlying behaviour among women and simply concentrate on the impact of the ageing of cohorts who have already developed strong attachments to the labour market and the displacement of cohorts with much weaker attachment, we find a strong and positive effect on the female working-age employment rate in almost all countries. These generational effects alone could be expected to contribute to a rise in the female employment rate of 2.6 percentage points by 2010, even after taking into account the negative impact on predicted employment rates of the shift towards older age groups within the working-age population (table 2.3).'

Women make up the largest share of the higher and medium-educated who are not part of the labour market. While younger women with higher levels of education should be able to gain stronger footings on the labour market and will find it easier to have a more continuous participation pattern over the lifecycle, there are other women from older cohorts with medium and high qualifications that are not fully utilised in the labour market either because they are inactive or employed in part-time jobs. With suitable childcare arrangements more of these groups could participate in the labour market or work longer hours. Short part-time jobs tend to be taken by the less well-educated but there are still substantial shares of medium and

higher-educated women employed in short or long part-time jobs. Indeed the modal employment category for higher-educated women at the E13 level is the long part-time category of 20-35 hours. Moreover, no less than one fifth of all mothers in employment are working in marginal part-time jobs, with hours of under 20 per week.

Table 2.3 - Impact of population and cohort effects on female working age employment rate, 1995 to 2010.

	<i>Female working-age employment rate</i>		<i>Impact of ageing of the 35-39 cohort on female employment rate in 2010</i>		<i>Impact of ageing of the 30-34 cohort on female employment rate in 2010</i>	
	<i>1995</i>	<i>2010 with 1995 rates</i>	<i>changes to the 35-55 age group</i>	<i>Changes to the 35-59 age group</i>	<i>Changes to the 35-55 age group</i>	<i>changes to the 35-59 age group</i>
E15	49.6%	49.4%	50.6%	52.2%	50.6%	52.2%
Austria	59.2%	57.3%	59.3%	61.6%	59.8%	62.3%
Belgium	45.4%	43.1%	47.7%	50.7%	49.0%	52.3%
Germany	55.3%	55.6%	56.9%	58.7%	56.9%	58.7%
Denmark	67.0%	65.1%	66.6%	68.3%	66.6%	68.3%
Spain	31.2%	33.0%	35.3%	36.7%	36.1%	37.6%
Finland	58.1%	54.8%	55.1%	56.7%	55.1%	56.7%
France	52.0%	51.0%	51.9%	53.5%	51.9%	53.5%
Greece	38.0%	39.8%	42.9%	44.8%	43.1%	45.0%
Ireland	41.3%	39.6%	43.1%	44.9%	46.7%	49.3%
Italy	35.6%	36.2%	38.9%	41.0%	38.9%	41.0%
Luxembourg	42.2%	39.9%	42.1%	44.1%	43.0%	45.1%
Netherlands	53.2%	49.5%	51.1%	53.0%	52.5%	54.6%
Portugal	54.3%	56.5%	59.5%	61.6%	59.5%	61.6%
Sweden	72.4%	69.6%	69.8%	70.5%	69.8%	70.5%
UK	61.4%	60.3%	60.7%	61.7%	60.7%	61.7%

Note: See text for details of assumptions behind scenarios

Source: European Labour Force Survey 1995 and Eurostat population projections (baseline scenario)

2.7 Older men and the Labour Market.

Older men below retirement age have seen their activity rates fall significantly over recent years as early retirement schemes have been used as a socially acceptable way to make employees redundant and to ease unemployment problems among younger and core age men (see chapter 3). However, such schemes are increasingly regarded as not viable in the longer term. The changing structure of the population which is increasing the share of over 65s also calls into question the possibility of supporting an increasing share of inactive men between 50 and 64. The size of the 50-64 age group is also rising, therefore increasing the potential weight of early retirement in relation to the labour market as a whole. Furthermore, at the end of the twentieth century when young people delay their entry to the labour market in order to obtain higher qualifications and old people regularly live well into their eighties, it is no longer appears justifiable for people, of either gender, to stop work at 50 or 55.

It should be noted that early retired may be a misleading description of this group as much of the increase in inactivity among older men has been a response to economic conditions rather than a widespread desire to voluntarily leave work before the standard retirement age.

Over the 1980s and 1990s the employment rates of older men, aged 50-64 years, have declined steadily in nearly all EU countries. There are some signs that the fall in older male employment rates may be coming to an end with employment rates rising between 1993 and 1995 in some countries - Belgium, Denmark and Luxembourg - or stabilising in others - the UK and Ireland.

The true scale and potential threat of the level of non-employment in these old age groups is even more apparent when one considers the ageing of the working-age population which we explored above. The impact of the increasing size of the older cohort with current patterns of non-employment places even greater pressure on the dependency ratios in addition to that from the ageing of the over 65 population. By 2010, with the same non-employment rate, the absolute size of non-employed men age 50-64 would have increased by 18% while for women the figure would be 16.9%.

Table 2.4: The change in male older age employment and employment rates, 1995-2010.

	<i>Employment rates</i>				<i>Net change 1995-2010</i>			
	1995	2010 <i>with same rate of change</i>	2010 <i>with variable rates</i>	1983 <i>rates</i>	2010 <i>with 1995 employ ment rates</i>	2010 <i>with same rate of change</i>	2010 <i>with variable rate of change</i>	1983 <i>with return to 1983 employ ment rates</i>
E15	59.0%	47.6%	50.2%	-	18.0%	-6.3%	5.8%	-
Belgium	48.9%	33.8%	41.3%	41.3%	29.8%	-10.4%	9.7%	9.6%
Denmark	72.6%	75.6%	75.6%	74.1%	27.3%	32.6%	30.0%	29.9%
Germany	61.6%	48.9%	48.9%	58.2%	2.0%	-19.1%	-8.5%	-3.7%
Greece	66.7%	55.8%	55.8%	61.2%	8.7%	-9.2%	-0.3%	-0.3%
Spain	57.9%	44.7%	51.3%	52.1%	17.3%	-9.5%	3.9%	5.4%
France	50.1%	35.7%	42.9%	42.9%	39.2%	-0.8%	19.2%	19.3%
Ireland	66.3%	57.2%	57.2%	61.7%	51.1%	30.2%	40.6%	40.7%
Italy	54.2%	37.4%	45.8%	45.8%	9.1%	-24.7%	-7.8%	-7.8%
Luxembourg	54.3%	49.4%	51.8%	51.9%	33.9%	21.7%	27.8%	27.9%
Netherlands	56.1%	50.1%	53.1%	53.1%	45.2%	29.7%	37.5%	37.5%
Austria	58.2%	46.8%	52.5%	-	19.4%	-4.0%	7.7%	-
Portugal	66.9%	61.8%	61.8%	64.6%	14.6%	5.9%	10.2%	10.7%
Finland	48.0%	36.6%	42.3%	-	46.6%	11.8%	29.2%	-
Sweden	75.5%	64.1%	64.1%	-	25.7%	6.7%	16.2%	-
UK	64.9%	56.8%	56.8%	60.9%	26.3%	10.5%	18.4%	18.4%

Note: Rates for Spain and Portugal are for 1987 not 1983.

Source: Calculations based on European Labour Force Survey data and Eurostat baseline population projections.

It may be important to be more ambitious and not only reduce the rate of decline in older male employment rates but in fact reverse the decline observed over the 1980s. A scenario of a complete reversal of the trends over the 1980s would see older age employment rates return to those in 1983 and table 2.4 shows the net change in employment of 50-64 year old men under such conditions.

The analyses in this chapter have highlighted three clear groups of the working-age population that will have a significant impact on the future labour supply in the next century. The changes in the structure of the population in all EU countries are a potential threat to the system of support for the old and the non-employed of working age for, under current employment patterns, fewer people will be supporting an increasingly large share of non-working people. However, the above analysis has shown that although there are large population shifts predicted in the medium and long term, the absolute size of the working-age population remains fairly stable. This creates an opportunity to utilise more effectively the groups of the working-age population we have identified above, a rather more positive strategy than the alternative of threatening the subsistence of those who are past retirement age and have left the labour market on a permanent basis.

3. SOCIETAL, SOCIAL AND INSTITUTIONAL INFLUENCES ON LABOUR SUPPLY

Economists tend to focus on the incentives which attract or discourage people from entering the wage labour market. An institutional analysis takes as a more productive starting point the following sets of questions:

1. What are the realistic alternatives to participation within the labour market?
2. How do people outside the labour market obtain access to resources to maintain themselves and/or dependants?
3. What share of people outside the labour market can be considered to have left the labour market on a relatively permanent basis but not in order to engage in other forms of work (for example, the retired or the sick)?
4. What share of those people outside the labour market are in fact preparing themselves for entry or re-entry to the labour market (for example those in education and training)?
5. And what share of those people outside the labour market are undertaking tasks and activities outside the wage economy (e.g. care work, informal sector work or illegal activities)?

Fundamental to the answers to these questions are :

- the organisation of the family economy;
- the role of the state in shaping the incentives/disincentives to participation and in providing institutional support for those in or out of the labour market;
- the role of older persons in the wage and family economy;
- the organisation of the education and training system;
- the organisation of the labour market.

3.1 The organisation of the family economy: a question of path-specific evolution or convergence?

The organisation of the family economy within European countries has been undergoing notable and rapid changes, including:

- rising participation rates of women, including mothers of young children;
- changes in household structure towards more single person households, more single parent households and fewer multi-adult households;
- decreases in fertility rates;
- rises in first age of marriage and age of parenthood;
- rises in the share of children born outside of marriage;
- increases in the rate of divorce and cohabitation;
- increases in the use of market and public services as alternatives to domestic labour.

The Mediterranean countries stand out for their low fertility rates, low percentage of births outside marriage, low divorce rates and low shares of single person and lone parent families. For these purposes Ireland follows much the same pattern as the Mediterranean countries.

The Nordic countries stand out for their relatively high participation rates, fertility rates, shares of births outside marriage, divorce rates and shares of single persons and one parent households (Denmark and Sweden but not Finland).

The remaining Northern countries tend to be located between these relatively extreme positions, although individual countries may cross over with either the Mediterranean or the Nordic patterns on individual indicators. The UK for example is closer to the Nordic pattern while Germany shares many of the Mediterranean characteristics, with low fertility rates and a relatively low share of births outside marriage.

There is some evidence of convergence around some key demographic and labour market variables including higher female participation, rising age of first birth, increasing length of transition from school to work and a changing family structure, involving fewer children and/or more complex forms of household and family formation. However, against these convergence trends we can find strong evidence of stability. In particular there is no evidence of a universal trend toward fragmented family systems and the cohesive family structure remains a strong feature of the Mediterranean countries in particular.

3.2 The role of the state in shaping labour supply

Considerable attention has always been paid within labour economics to the role of the state in shaping labour supply decisions, particularly with respect to tax and benefit policies. These analyses have tended to focus on rather narrow or limited definitions of the impact of state policy. However, while state policy is seen as having a major role in the development of different forms of welfare capitalism, the actual role of the state in any particular time period is strongly constrained by past development, or by the path-dependent evolution of a particular welfare capitalist society. Different welfare state regimes influence the available labour supply through the following mechanisms:

- support for the inactive, through subsidies to single earner households, education and training, retirement and disability pensions;

- incentives to work, through the tax system, the unemployment and disability benefit system, the pension system;
- availability of substitutes to domestic labour, including childcare, elderly care;
- policies which facilitate/hinder the combination of work and family/personal life.

Various typologies of welfare states have been proposed within this broader perspective. Table 3.1 gives the classification of all EU Member States according to a fourfold typology developed by Daly (1996). It sets out the main variations between EU Member States according to key features of the welfare system. These features include the basis for welfare rights and pensions; the system of taxation; childcare provision and parental leave. There is in fact a fair degree of heterogeneity within the continental model in particular, where the classification of France alongside Germany, given the much higher provision of childcare in France, is problematical. Even according to the Daly model it is not possible to classify either the Netherlands, which combines the Nordic tendency towards citizenship rights with elements of the continental European insurance system model, or Ireland which combines features of the Mediterranean countries with the liberal UK model. We have maintained the positioning of the Netherlands and Ireland between categories and have further subdivided the continental European model, placing France and Belgium, together with former East Germany, in a modified category, closer to the Nordic countries, on account of the much more extensive support for childcare than is found in Austria and Germany which continue to be classified under the male breadwinner model.

Table 3.1 A Typology of European Welfare States

Type	Country Example	Main Features
Nordic 'everyone a breadwinner'	Sweden Denmark Finland	The benefit system is a mixture of flat-rate payments plus a wage related second tier; The individual is usually the unit of entitlement for benefits and taxation; Citizenship or residence is a common basis of entitlement, family status is infrequently used; benefits for caring are well-established; Public services are widespread
	Netherlands	
Continental European 'modified male breadwinner'	Belgium France East Germany	<i>modified male breadwinner</i> : good childcare provision <i>both</i> : social insurance benefits dominate the cash transfer system; the individual is most frequently the unit of entitlement but family status is also an important consideration;
'male breadwinner'	Germany Austria Luxembourg	employment contributions are the main basis of entitlement to benefits; the value of benefits is tied closely to the recipient's former wages; benefits for caring are rare; services are available on a low to medium basis <i>male breadwinner</i> : low childcare provision
Liberal 'more than one breadwinner'	United Kingdom	The benefit system is a more or less equal mix of social insurance and means-tested payments; The individual and collective units are of roughly similar importance, family status is also important; employment contributions and need are twin pillars of entitlement; benefits are flat-rate and low level; benefits for caring are quite well-established; public services have a medium (but decreasing) availability
	Ireland	
Mediterranean 'family as breadwinner'	Italy Greece Portugal Spain	social insurance is the main plank of the benefit system; a social safety net, means-tested or otherwise, is practically non-existent; the individual is the most common unit of entitlement; employment contribution is the most common basis of entitlement; benefits for caring are rare; public services are poorly developed

Note: adapted from Daly (1996)

The Nordic model and labour supply

The Nordic model tends to maximise the number of people with attachments to the labour market for the following reasons.

- The adoption of an individualised rights system, e.g. for benefits, encourages most adults to enter and stay in the labour market.
- The provision of public services provides both an alternative to domestic labour and a high demand for labour in areas such as caring.
- Generous leave provision enables people to retain contact with the labour market even when temporarily absent.
- Individual taxation, coupled traditionally with high marginal tax rates, provides an incentive for dual earner households.
- Individual benefits allow one partner to continue in work if the other is unemployed.
- Relatively narrow wage differentials reduce the possibility of achieving acceptable living standards based solely on male earnings, and also provide incentives for partners to acquire access to pensions in their own right as their earnings constitute a relatively significant share of household income.

The continental European model and labour supply

The continental European model tends to limit the share of the population in the labour market through the following mechanisms shared by both the strong and the modified male breadwinner models:

- subsidies through the tax system to families with dependants which both reduce the need for the second adult to work and increase the marginal tax rate on the second income earner (although Austria has individualised taxation);
- provision of derived welfare rights based on insurance principles which reduces the incentive for the second earner to build up rights in his/her name;
- parental leave arrangements which are low paid or unpaid, thereby reinforcing dependence.

The distinction between strong and modified male breadwinner models hinges primarily around support for childcare and development of public services.

The liberal model and labour supply

The liberal model tends to provide incentives for persons to enter the labour force because of low access to benefits, but has contradictory effects on those either reliant on safety net benefits or in need of support to enter the labour market. The particular mechanisms include:

- low welfare benefits therefore encouraging a rapid return to the labour market;
- high overall wage inequality, thereby encouraging multi-earner families among low to medium income families but restricting the move towards full dual earner status;
- restrictions on access to the labour market for those on benefits because of means testing, thereby encouraging social exclusion and leading to high shares of households with no workers alongside other households with multi-earners;
- limited support for male sole breadwinner households because of overall low rates of income tax and limited allowances or benefits;
- low state provision of help with childcare and limited rights to parental leave even on an unpaid basis;

- limited incentives to build up individual rights to benefits such as pensions because of means testing, which reduces the value of additional pensions to low income households.

The Mediterranean model and labour supply

We can identify the following mechanisms:

- the family not the state is the major mediating institution shaping labour supply, in part because of the absence of a welfare state in many key areas;
- labour supply is often generated through the family, into family businesses, and through family connections into direct employment;
- the family provides many services elsewhere provided through the market, thereby restricting demand for labour and labour supply;
- the main influences restricting female labour supply are the family and family responsibilities and the shortage of employment, and not the role of the state in promoting single breadwinner households;
- similarly absence of childcare is perhaps not the main constraint on participation as this may be provided within the family;
- restraints on fertility are linked more to the cost of children than specific working time or childcare constraints;
- the family support allows young people to wait for a long time for employment, either in education or as unemployed.

Evidence of convergence or societal systems?

These different models have emerged over a relatively long period of time linked to distinctive paths of development of welfare states. Yet while these models can still be identified in current patterns, there are also signs of breakdown in these traditional 'welfare' models. Are these distinctive models likely to survive?

One argument for convergence comes from the increasing share of services in all economies, regardless of their pattern of welfare capitalism. Almost all new job growth is in services and unless societies expand service provision there will be no improvement in the employment rate. Alternative arguments for convergence start from a different scenario, namely a convergence based around a levelling down of welfare rights. However cutbacks in welfare also involve cuts in childcare and care for the sick and elderly, all of which are likely to reduce the available labour supply.

3.3 The role of older persons in the wage and family economy

One of the major features of the evolution of European labour supply has been the decline in the participation rates of older men over recent years (OECD 1995a,b). That of women has continued to rise, in line with the general increase in female participation, but even for women the rise in participation may have been less than might have occurred, if there had been a stable or even rising trend in male older worker participation rates.

Most Member States have statutory retirement ages of 65, with many equalising up the age for women from 60 to 65. Denmark stands out at one extreme with a retirement age of 67 and France at the other with a retirement age of 60. State-funded early retirement is found in most Member States, although eligibility conditions vary and have generally been tightened in recent years.

The study by Naschold and de Vroom (1994) considered the following societal factors in shaping the pattern of early retirement:

- the extent to which policies supported the externalisation of older workers (e.g. through benefit support) or the integration of older workers (through active labour market policies, partial retirement programmes and the like);
- the impact of different production regimes on early retirement patterns;
- the role of firm-state relations in shaping policy pursued at the firm level;
- the different meanings and consequences of early retirement.

The study found very different levels and forms of early retirement:

- Early retirement in Germany and the Netherlands usually involved complete exit from the labour market onto relatively high benefits which were considered (especially in Germany) to be a just reward for long service, rather than disguised redundancy. Both countries had relatively low male participation rates for older workers.
- Japan and Sweden in contrast had high participation rates owing in part to policies or customs which combine work and retirement. Japan redeploys older workers to less well paid work, but this is often combined with a pension. Sweden provided opportunities to remain in the same work but for fewer hours, with the state providing subsidies so that for example 50% of working time might generate 75% of previous earnings.
- The US and the UK had medium levels of participation as a result of 'market' rather than state policies. The US combined both 'exit is exit' with 'work and retirement': most retirees left the labour force for good but others negotiated deals to work part-time, or found bridging jobs (lower level /lower paid jobs) or even returned to the labour market when under financial pressure. This diversity of behaviour was reinforced both by low social provision and by policies which restrict age discrimination in recruitment. In the UK the benefit system restricts opportunities for combining work with welfare for those without company pensions. As a result, many older workers not in employment see themselves in limbo: too old to work and too young to retire (Casey and Laczko 1989).

Although the Naschold and de Vroom study focuses more on the demand than on the supply-side, the approach adopted matches in many respects that adopted here, allowing the following conclusions to be drawn from this analysis.

Low productivity is not the explanation for early retirement.

There is relatively little evidence that older workers cannot provide a functional labour supply under current technological conditions, and the explanation of declining participation as a function of mismatch must be rejected.

Policies influence early retirement but do not fully determine participation rates.

State policies do influence employment strategies pursued by firms towards older workers, but the example of the UK and the US, where there is no overall state policy favouring early retirement, shows that societal norms relating to fairness and equity can still influence employment practices, to the extent of inducing firms to 'downsize' through the adoption of the relatively expensive option of early retirement.

Social norms reinforce the use of early retirement but also explain differences in practices between societies.

Social norms relating to older workers' right to work or to the acceptability of early retirement do vary between European societies, and influence both employer practices and workers' attitudes to early retirement.

Access to benefits affects practices and attitudes.

Forms of benefits as well as levels of benefits can influence attitudes to early retirement, with insurance systems perhaps both making early retirement more acceptable as well as providing more financial support.

Future use of early retirement will depend not just on the labour market and on the welfare system but also on the family economy.

Future prospects for early retirement will depend upon a range of factors including state and company-level support for early retirees, the extent of downsizing, the evolution of social attitudes to early retirement, and the financial responsibilities of older workers.

3.4 The organisation of the education and training system

The organisation of education and training varies considerably between Member States and has a major impact on labour supply participation rates, both by varying the age at which young people tend to enter the labour market for the first time, and by influencing commitment to work

Impact on young people

There are a number of different characteristics to the education and training system which can be used to illustrate variations between Member States. Table 3.2 shows the differences in compulsory school leaving ages, the normal minimum age of entry into higher education and the normal length of study for a first degree.

Table 3.2 Characteristics of education and training system, 1994

Country	Compulsory school leaving age	Starting age for higher education	Years of education from primary to university	Expected leaving age
Austria	15	18-19	19	25
Belgium	18	18-19	16	22
Denmark	16	19-23	18	25
Finland	16	19	16	23
France	16	19-20	16	22
Germany	18	18	19	25
Greece	15	17-19	23	28.5
Ireland	15	17-18	16	22-23
Italy	14	19	20	26
Netherlands	16	18	17	23
Portugal	14	18	16	22
Spain	16	18	17	23
Sweden	16	19	16	22-23
UK	16	18	16	21

Source: OECD1996a

It is not just the educational institutions but also the relative importance of education versus training which shapes the participation patterns of young people.

- Germany, Denmark and Austria have mainly apprenticeship-type vocational training;
- Netherlands, Finland, France, Belgium, Italy have mainly school-based vocational training;
- Ireland, Spain and Greece have mainly general education;
- The Swedish and UK systems fall into the non classified category.

While there is considerable evidence of difference in education and training systems, it must be recognised that there may be pressures in the future towards convergence and even towards some reversal of the trend towards higher participation in education if welfare state cutbacks increase the expense of training. Already the countries with the most distinct training systems are feeling pressures to change to respond to the increasing demand by young people for higher education. This reflects both a positive desire for more higher education and a recognition that occupationally-based training may be becoming less relevant in organisations where firm-specific skills are regarded as of increasing importance (Cappelli 1995).

This suggests that those countries with high participation rates of young people based on apprenticeship systems may face a decline in measured labour supply in the future if young people stay longer in education, or reject the apprenticeship system altogether. Other countries are facing problems from the increasing cost of higher education: the UK government first expanded higher education in part as a response to high unemployment, but has since reneged on promises to fund the expansion of education and is placing more of the burden of the cost on student, thereby potentially diminishing demand.

Impact of education and training on participation of prime-age workers

While education and training reduces the participation of young people in the labour market and indeed effectively shortens working life, the impact of education on participation for prime-age workers is positive. Table 3.3 reveals a very strong impact of education levels on participation rates for both men and women aged 25 to 64, suggesting that university education promotes higher and more continuous participation for women and reduces tendencies to early retirement among men. For women, the participation rate of those with below compulsory secondary education only rises above 80% in Sweden and falls to below 40% in Belgium, Spain and Ireland, while for university-educated women it hardly falls below 80%. University-educated men tend to have participation rates around 90% or higher.

The impact of increased education is likely to be particularly strong for women, although it must be recognised that the ever increasing expansion of higher education can also have negative effects on women's participation and/or on their fertility rates. By extending the higher education period, it becomes more difficult for women to enter steady employment before having children; this is likely either to lead to reduced or postponed fertility, or reduced participation below that which would otherwise have applied to university educated women.

Table 3.3 Rates of labour force participation by level of educational attainment and by gender, 1994

	Below Upper Secondary		University level	
	Women	Men	Women	Men
Austria	49	73	86	93
Belgium	39	71	85	91
Denmark	68	78	92	95
Finland	64	72	89	93
France	52	72	81	91
Germany	45	79	81	92
Greece	40	86	81	91
Ireland	31	82	81	94
Italy	33	77	83	92
Netherlands	40	76	79	90
Portugal	59	86	95	95
Spain	37	82	83	91
Sweden	81	91	93	94
UK	57	75	88	94

Source: OECD 1996a

3.5 The organisation of the labour market

Implicit in all the discussion of the factors shaping the supply of labour is the organisation of the labour market itself. The key variations are:

- the use of internal versus occupational labour market systems;
- the flexibility of employment;
- the costs of non participation ;
- working-time regulations and practices;
- the incentives/disincentives for engaging in informal work/illegal activities.

The use of internal versus occupational labour market systems

Member States

Variations in the organisation of EU labour markets can have significant impacts upon the quantity and quality of labour supply. For example, internal labour markets may favour continuity of employment but increase the risks associated with job loss. However, internal labour markets may coexist with a flexible periphery which encourages entry to and exit from the labour market. Occupational labour markets facilitate mobility within the labour market and thus ease problems of re-entry but those without the requisite qualifications may face exclusion

The flexibility of employment

Flexible employment or diverse employment forms may enable some groups otherwise excluded from the labour market to enter, but not all the non-employed can be regarded as excluded from the labour market because of a shortage of non-standard or flexible employment. In fact flexible employment may be a factor leading to discouraged workers and rising inactivity rates and is not always a positive assistance to reintegration into the labour market.

The costs of non-participation

The costs of non-participation in the labour market also vary according to the institutional arrangements: internal labour markets, promotion and seniority pay increase the costs of discontinuity, but may also lead to increasing job queues for young people. Welfare rights based on derived rights and high wage inequality in favour of men may also reduce costs of non-participation for female spouses in some male breadwinner societies. However, if wide wage dispersion also increases the number of men on low wages for men, this may lead to added worker effects with both partners in the household seeking work. Long term costs of non-participation may, however, have less impact on participation decisions than the short term costs or institutional obstacles to participation such as a shortage of available childcare. Thus women who cannot find suitable childcare may make participation decisions that are clearly against their long term interests.

Working time regulations and practices

Working time affects both the number of people within the labour market and the effective supply of labour hours for those in the labour market. Long hours may reduce productivity, so labour supply is not simply measured by numbers of hours. EU Member States span the spectrum of working time patterns and preferences. Most working time policy has been designed to reduce labour supply for those in employment and regulations on overtime working could be reversed under conditions of labour shortage (although this could damage any longer term trend toward a more equal sharing of unpaid as well as paid work). Policy has also tended to promote part-time as a form of worksharing, either for those in employment or for those outside the labour market. The impact of part-time work will depend upon the societal context: in some countries it may mobilise new labour supplies, in others lead to underemployment of those already available on a full-time basis to the labour market. Similarly part-time work can be used to promote employment continuity or to create flexible labour markets based on discontinuous employment of women.

The informal labour market and labour supply

Estimates of potential labour supply may be excessively high if the informal economy remains attractive even when jobs are available in the formal economy. This will apply where the informal economy is strongly linked to the family economy, where welfare systems promote informal work and where there are discouraged workers or excluded groups such as ethnic minorities. Policies to encourage participation in the formal economy need to recognise the value of informal, unpaid and voluntary work and seek to draw these forms of activity into the formal labour market rather than seek solely or mainly to eliminate non-formal activities of all kinds.

4: LABOUR SUPPLY QUALITY: IMPROVING THE SKILLS AND DECREASING THE MISMATCH BETWEEN DEMAND AND SUPPLY.

There are two dimensions to improving the effective quality of the European labour supply:

- enhancing the underlying skill level of the population through initial education and training and through lifelong learning opportunities to upgrade and prevent the deterioration of skills;
- *improving the match between skills and employment opportunities, that is by reducing underemployment (in hours and skill levels) and reducing skill shortages caused by uneven geographical demand or institutional barriers to retraining and redeployment.*

The first dimension concentrates on a general upgrading of the skills and education of the European working age population and on measures to maintain and enhance these skills over the course of a working life. The second dimension focuses on meeting demands for skills by ensuring that current resources are effectively mobilised. The first is potentially a more costly approach, requiring more substantial investments in education, training and retraining than the latter which could be targeted on a smaller share of the working age population. However, several counter arguments can be made in favour of a more broadly based approach to upgrading the quality of the whole European labour force.

These arguments suggest that there cannot be a tight targeting of labour supply to meet future demand, both because demand is not independent of supply and because failure to foresee future demand may lead to a tendency to underestimate demands. Planning for surplus capacity offends short term cost considerations but provides the appropriate infrastructure for European growth and development.

Against these arguments must be placed the problems which arise if the enhanced expectations that come with higher education and training are not matched by enhanced demand for skilled workers. These problems will be exacerbated the more there is an overall shortage of employment relative to demand, causing a problem of underemployment as well as unemployment.

Expectations of employment in more skilled positions will also be unfulfilled if employers fail to respond to a better educated and trained workforce by enhancing opportunities to use their skills and for more employee autonomy within the workplace.

4.1 Measures to enhance the overall skill level of the European working age population.

To enhance the quality of labour supply it is necessary to consider the main institutional arrangements for developing and maintaining the quality of European labour supply and how these could be modified and developed to achieve this objective. These institutional arrangements can be considered under four different types of labour market interventions or policies: initial education and training; skill transferability; skill maintenance and development for individuals over the lifecycle; labour market structures for enhancement of skill development.

Initial education and training.

Initial education and training still has perhaps the most important impact on the quality of labour supply, for despite the rhetoric surrounding lifelong learning, most educational and training qualifications are obtained before or soon after entering the labour market. Here the problems relate to the share of the population gaining access to further or higher education and/or to training and the quality and usefulness of the education and training provided. There is wide variation between Member States in this area.

Policies to enhance the quality of the labour force through initial training and education would involve:

- continuation of the increase in initial education levels, including the completion of the generalisation of post compulsory secondary school education as well as an enhancement in the rate entering higher level education, both university and non-university;
- innovative combinations of training and education to blur the dichotomy between the two routes to skill enhancement and to reduce the tendency for training to be considered a second best alternative, or even a third best, inferior to direct employment straight from school.

Training is much more directly concerned with the labour market and thus may be more susceptible to shaping according to employment policy objectives. However, training does not exist independently of education and attitudes of employers and employees towards training will necessarily be influenced by attitudes to education. If the latter always carries greater prestige then training policies will always be limited in their effectiveness as they carry a second class label. These problems related to the status of training can be found particularly acutely in the Southern countries and in the UK where vocational training has a low prestige and labour market value relative to education (Lane 1989). At the other end of the spectrum Germany and Austria have very well developed and regarded training systems.

Further problems lie in ensuring that the initial training provided is both relevant and transferable. These objectives, as we see further below, are not always complementary. For initial training to improve its reputation within the labour market it is essential both that trainees have the appropriate skills sought by employers and that trainees have a good chance of obtaining jobs in a relevant profession on completion of training. The labour market is an inefficient arena for developing long term strategic approaches to training and the supply of labour as those trained in advance of demand are likely to become disillusioned and move into different job areas. Such strategic training may have to be undertaken within internal labour markets, where employers can more effectively hoard a surplus of skills for future development.

Skill transferability

Development of effective training systems which deliver high level and transferable skills across a wide spectrum of the employment system may be an ultimate objective, but there are a range of likely institutional and other obstacles to the realisation of such an objective. These problems relate in the first instance to the fact that the training market is classic case of market failure as the persons who invest in the skills and training cannot be certain of capturing the returns. This leads to underinvestment in training by organisations because of the high risk of low or

zero return, and in a tendency to reduce transferability through the narrowing of skills in order to increase returns on investment. Given this classic failure there is a need for intervention, but subsidies for training require some notion of transferability of the training received so that there is a check on what organisations provide in return for the subsidy and also some benefit to society if the company fails or dismisses the trained employee.

The problems that this represents are twofold: first that of establishing the institutions in the first place and second that of avoiding institutional inertia and the collapse of the credibility of the training system over time. Germany, for example, has benefited from very strong institutions, including very high membership of employers' organisations and a strong voluntary commitment to the training system but has not managed to avoid the problem of institutional inertia. Many of its apprenticeship programmes became outdated and less relevant but it required both considerable effort and a considerable length of time to introduce new and more flexible systems covering a broader range of tasks, for example in the construction field (Marsden 1986; Bosch 1993).

Changes on the demand side of the economy increase the dilemma over whether it is possible to combine upgrading of skills with transferability. One of the consequences of the changing economic order, away from the mass production or Fordist system, is arguably the increasing specificity of firms' business strategies and expertise, thereby calling into question the viability of training based on notions of common occupations and common skill requirements (Crouch 1997). The argument is that dynamic organisations need the space and freedom to develop their own training and skill enhancement strategy.

Several problems for the overall quality of labour supply arise from simple acceptance of this argument. First, not all organisations are 'dynamic' so that while the training systems in some organisations may be better than the labour market standard, the training provided, in both content and volume is likely to vary significantly. Secondly, high level training is likely to be concentrated on the advantaged few, thus failing to expand the base of skill development. Thirdly, even the dynamic or learning organisations are facing problems and dilemmas with their training policies which require by definition high commitment and long term job security, and their labour market and business strategies which emphasise greater insecurity and higher rates of job turnover.

Skill maintenance and development for individuals over the lifecycle

Policies to maintain and develop skills over the lifecycle need to be orientated to provide opportunities for people in at least four different kinds of situations:

- those already in the labour market to upgrade and develop their initial further or higher education and training;
- those who have missed out on initial education and training;
- those who have left employment and/or the labour force to maintain or to renew their skills so as to ease re-entry into work;
- those facing redundancy and/or obsolescence of their skills to retrain to ease redeployment within the labour market.

The types of policies that could be pursued and the anticipated obstacles are described below.

Lifelong learning for those in employment.

As already stressed above, this is the area where it is easiest to find evidence of activity and opportunities as employers have a vested interest in the skill development of their key employees. This may be highly firm specific, or may involve more general skills if the employees concerned have sufficient bargaining power to require training in transferable skills as part of their employment package. Subsidies could be made available to firms to encourage the provision of transferable skills and to extend lifelong learning opportunities to non-managerial or non-technical grades.

Lifelong learning for those who missed out on initial education and training opportunities.

Second chance schemes are particularly important in those countries which have recently seen a major expansion in further and higher education or in vocational training. For those generations in the labour market who entered before this expansion, their lifelong employment chances may be severely reduced by the availability of more highly trained young people. Particular attention may need to be paid to those cohorts who entered the labour market in periods of high unemployment and who thus missed out both on education and on valuable work experience.

Lifelong learning for those who have left employment and/or the labour market.

Those who leave employment for unemployment or inactivity are the most at risk of seeing the value of their initial training and education and their work experience decline in value. These problems particularly affect the long-term unemployed and women returners to the labour market. Both groups tend to suffer from occupational and skill downgrading even when they are successful in obtaining employment (Dex et al. 1993; Daniel 1990; Osterman 1988). The problems they experience in re-entering the labour market are often attributed to skill deterioration.

Lifelong learning opportunities for those at risk of skill obsolescence or redundancy.

Schemes to retrain workers who face redundancy and/or potential redundancy due to obsolescence of skills may prevent workers displaced from their career jobs and skills having to face occupational downgrading or even worse, the risk of slipping into long-term unemployment. These preventative measures can clearly improve life chances and reduce the negative impact of technological and economic restructuring. Most schemes of this type concentrate on those displaced from industrial employment and therefore favour men (Rubery et al. 1998). Some research suggests that those who become redundant from skilled jobs tend to re-enter employment relatively fast (Daniel 1990), but in semi or unskilled jobs, thus displacing the impact of unemployment onto those who would otherwise have obtained this work.

Labour market structures for enhancement of skill development.

So far we have been discussing policies to enhance the quality of the workforce through measures which concentrate either on education and training institutions or on the individual. Perhaps most important of all are policies which may help to shape the organisation of the labour market and prevent experience within the labour market exacerbating skill disparities and reducing opportunities. Four issues can be identified for consideration:

- how to ensure that those workers confined to atypical or marginal jobs obtain access to training and skill development;
- how to organise and deliver training provision in organisations such as SMEs which do not have the appropriate infrastructure;
- how to develop promotion paths out of low skill jobs or to break down occupational segregation to reduce underemployment and confinement to low skill areas;
- how to change employer attitudes relating to selection criteria for recruitment or redundancy, particularly with respect to age, gender, race and initial education.

Training in atypical and marginal jobs.

Opportunities to extend training to atypical workers will depend upon the conditions under which atypical jobs were created; for example, as part of a movement towards a low skill, low value-added production system, or as part of a strategy of *screening new recruits (temporary workers) or facilitating the reconciliation of work and family life*. Under the latter two conditions there may not be so much employer opposition to extending training to atypical workers, but under the first set of conditions employers may consider it unnecessary and against their chosen employment policy to extend training.

One of the main problems facing policymakers is how to convince employers that it is worthwhile to train atypical workers. Economic textbooks (for example, Polachek and Siebert 1995) maintain that it makes economic sense to exclude part-timers from internal labour markets and training opportunities as these workers are less committed, have higher turnover and also involve higher costs as there are more persons to train. This argument ignores the long term or lifecycle consequence of excluding large groups of the labour force from access to training which exacerbates any initial differences in productivity levels between those who receive training and those who are excluded.

The informal sector provides a special case of atypical work. A more enlightened approach than that of prohibition may be needed to ensure that policies to encourage participation in the wage labour market do not result in reductions in economic activity and welfare. Instead of suppressing the informal sector it may be better to seek to improve the quality of economic activity through training programmes which may also encourage the eventual emergence of the informal sector into the formal economy (Mingione and Magatti 1994).

Training in SMEs.

Opportunities for training of employees in small firms may depend upon the conditions under which small firms are established; in family businesses high level, albeit informal, training may be given to family members, but there may be less interest in providing training opportunities for those hired by family firms or by small businesses not based on a family system. The problem of training for small firms will be less problematic in societies where there are strong occupational labour markets and transferable skills. Small firms may either participate in this training as the trainees provide a valuable source of relatively cheap labour (as occurs in the German system) or they can contribute to the training through levies on all firms within a sector or industry.

Developing career paths and reducing segregation.

The problem of limited career development opportunities applies not only to atypical and marginal workers but to many other groups of workers who are confined to low level jobs with limited prospects of entering career or promotion paths. Many of the problems with occupational segregation by sex relate to the exclusion of women's jobs from career tracks and promotion paths. Moreover, many job areas filled by disadvantaged groups such as women fail to distinguish between different levels of skill and thus skill development and valuable experience go unrewarded. Employers benefit by not having to reward staff for their skills but such policies also restrict the extent to which these developed skills can be effectively utilised by the organisation. Opportunities for upgrading skills are thus not solely or mainly linked to training opportunities but to opportunities to use these skills within the workplace.

Employers' attitudes to selection criteria for recruitment, promotion and redundancy.

The effectiveness of many of the policies so far advocated to improve the overall quality of the labour force will ultimately be dependent on the potential to change the attitudes of employers towards access to employment, including initial selection, promotion opportunities and indeed selection for redundancy in a situation of downsizing. There will be little point in expansion of training opportunities for the long-term unemployed, for older workers or for women returnees if employers continue to discriminate by age, gender and work experience.

As we have argued above, the main reason behind the popularity of early retirement appears to be its social acceptability and not the lack of skills of the older members of the workforce. Age discrimination regulation needs to be considered if there are to be serious attempts to revitalise the labour market for older workers and to facilitate the re-entry of women into the labour market as age discrimination often kicks in at a relatively low age range particularly in women's job areas. Barriers to age discrimination may also be affected by wage structures. Where seniority payments are significant it may be more difficult for employers to employ older workers in jobs and at pay scales normally enjoyed by younger workers, thereby reinforcing a tendency to favour early retirement over retraining and redeployment.

4.2 Measures to overcome short term skill shortages and bottlenecks.

In addition to these general policies to enhance the skill structure, a number of policies can be identified which should help avoid short term blockages and imbalances. These include:

- concentration of employment demand in countries with the lowest employment rates or largest potential labour reserves, especially of skilled labour (see chapter 2);
- policies to facilitate geographical mobility (e.g. development of an effective rented housing market and the development of inter-Member State mobility in key skill shortage areas);
- policies to encourage greater flexibility in job entry requirements to reduce skill shortage and potential wastage of talent due to rigid recruitment requirements relating to age, gender, working-time availability, employment history, formal education requirements and formal training requirements;
- policies to alleviate labour surpluses as well as labour shortages, that is by retraining/redeploying where demand is low through upgrading the skills of those just below the areas of skill shortage, thereby releasing semi or unskilled jobs for those currently unemployed or outside the labour market .

While the first two policies relate to either moving new jobs to the people without work or helping people move to the areas of employment expansion, the latter two policies follow many of the ideas explored above for enhancing the quality of labour supply. Short term and long term policies may therefore complement each other.

5: TOWARDS A LABOUR SUPPLY POLICY.

European labour supply policy needs to be concerned with ensuring:

1. a sufficient quantity of labour to provide a basis for economic growth and expansion;
2. a more egalitarian sharing of employment opportunities so that more people are drawn into employment and fewer individuals and households are excluded from the labour market;
3. a possible reversal or slowdown of the process of concentrating working life within an ever more compressed period, namely from 25 to 55, which is incompatible with increasing life expectancy and increases the problems of reconciling work and family responsibilities;
4. the improvement of the quality of the potential labour supply, including both those currently in and those currently outside the labour market.

Table 5.1 provides a matrix of the kinds of policy options that may need to be considered to bring about these objectives, for the three key groups identified above: namely young people; women aged 25-49 and older workers aged 50+.

Table 5.1. Policies to increase the quantity and quality of labour supply by age and gender categories

	<25 young	25-49 women	50+ older
Child care support		X	
Elder care support		X	X
Pension reform		X	X
Social security Reform		x	X
Working-time Policy		x	X
Education	x		
Initial training	x		
Lifelong learning		x	X
Age discrimination		x	X
Desegregation Policies	x	x	

This range of policies will be discussed under three headings: support for care work; social security and working-time policies; education and training policies.

The focus is on looking for policies which could significantly enhance both the quantity and quality of labour supply but the identification of such possible policies does not in itself constitute a clear recommendation that this route should be followed. The stress is on the need for co-ordinated and holistic policy approaches,

a form of advice which is often ignored in the interests of cheaper piecemeal adjustments which then fail to deliver desired results.

5.1 Childcare and elder care support.

Policies to support childcare and elder care must be a major element of any policy to increase the employment rate. These policies have a double effect; they facilitate participation and also tend to stimulate demand for wage labour. The main factor restricting the participation of prime-age women, apart from labour demand factors, is responsibility for care, particularly of children. Marriage no longer appears to have a major effect on participation so that it is not housework but care work which is primarily responsible for keeping prime-age women's participation rate below that of men. Support for women in the childbearing and childrearing phase could do much to raise the quality of female labour supply, by reducing the risk of interrupted careers to the value of women's qualifications, training and work experience.

Policies to provide social support for care could play a major role in facilitating the changes in social organisation and in particular the organisation of the family economy required for a higher participation rate among prime-age women. However, provision of childcare and elder care needs to be part of a co-ordinated strategy and not simply a stand alone policy (Fagan and Rubery 1996a). This co-ordination needs to apply over a range of activities at one period of time and over the lifecycle of the child and the parents.

For elder care, co-ordination over the lifecycle is more complex as the time periods when elderly people will need care are unpredictable and cannot be planned in advance. An elderly relative may at one moment be providing care - helping with childcare for example - and then almost immediately afterwards be in need of care for her or himself. This type of care can be the most disruptive to working careers because of its unpredictable nature and the much greater uncertainty over the length of time for which care will be needed than in the case of children. Moreover, however controversial collective care for children may be, there is a much broader consensus that at least some collective care can be good for the children concerned than is the case with respect to collective care of the elderly.

The range of current patterns of participation found within Europe provides limited support for the hypothesis advanced by Hakim (1991) that prime-age women divide into career women and non-career women, the latter identifying themselves primarily with the family and seeking at most part-time work in the labour market. The implication is that policies to provide universal childcare provisions will be unwelcome to many women and that the career orientations of the minority should not lead to policy changes which take no account of the continuing preferences of many women for motherhood. This approach would also suggest that policies designed to boost the employment rate through the integration of women may be less successful than anticipated. While policies should ensure the right for women to care for their children if they wish, particularly in countries where such preferences are strong, there is little to support the idea, either from cross-national research, or from studies within countries, that such preferences are static and independent of the policy environment in which women are located (Fagan and Rubery 1996b).

Evaluation of the impact of policies to support childcare has provided strong justification for intervention in this area to stimulate female participation and maintain good employment prospects for women. From our examination of the current knowledge with respect to support for care and its impact on employment and participation the following principles for policy-making can be identified.

- Care support policies should be part of a co-ordinated strategy, involving coordination of work and care and other services and co-ordination over different phases of care through the year and over the life of the child.
- *Combinations of policies or options including direct services, rights for leave and for flexible working hours* should be provided to take into account the needs of carers and of those being cared for as well as employment objectives.
- Policy should be targeted to fit with different preferences and forms of social and family organisation across Member States but the potential for policy to shape preferences and practice in this area of rapidly changing systems of social and family organisation should also be recognised.
- Paid compensation for care (paid parental leave and also paid leave for elderly care) needs to be considered if there is to be a long term move towards dual earner households, under which there can be no assumption that one partner will earn a 'family wage'.
- Policies to integrate women into the labour market through care support need to be integrated with other policies related to equality, such as wage structures, to increase the possibility of voluntary changes in the gender division of responsibilities within the household.

5.2 Social security reforms and working-time policy.

Reforms to social security and working-time policy are mainly likely to affect the participation of prime-age and older workers. The impact of current and potential future policies on these groups will be discussed separately.

Prime-age population.

There are two dimensions to any reform of social security aimed at maximising employment rates. The first and most obvious is the need to 'make work pay'. The second and equally important one is to modernise the social protection systems to take into account new developments in the wage and household economy. These two policies need to be pursued in tandem. It is also important to be sensitive to the role of the informal sector in some economies. Pressures to draw more persons into the formal economy through punitive regulations could suppress informal or unpaid work which is contributing to European standards of living, particularly among poor communities. Increasing the employment rate should not be pursued as an objective to the extreme that this reduces rather than adds to welfare. Thus the issue of what is productive employment must be addressed.

We will consider the *modernisation* agenda first, for the design of effective *making work pay* policies may be dependent upon appropriate modernisation of the general social protection system. The problem with current social protection regimes is that for the most part they were designed around a model which assumed full-time continuous participation by a male worker in relatively permanent jobs.

The problems this model poses for an employment policy based on maximum participation and based on current trends towards flexible labour markets and more complex household and family arrangements include the following.

- Current trends are towards a wider range of the population entering the labour market into an increasingly diverse range of employment forms, yet the social protection model is still based on a homogeneous full-time continuous employment form, with those deviating from this standard offered much lower social protection.
- Forms of work and responsibilities other than wage work are not made visible within this model of social protection, and as a consequence it is assumed that it is possible to distinguish clearly those in the labour market from those outside.
- Households are assumed to be stable and to provide a democratic sharing of resources so that inequalities in direct access to resources between men and women within households and over the lifecycle can be overlooked.
- Limited incentives are provided for the spouse to participate in wage work or to establish independent rights to social protection.
- Unemployment is expected to be a rare occurrence and not a regular and repeated episode as it can be in the new flexible labour market.
- Passive social benefit policies tied to full-time job search and immediate availability for wage work are still the main form of social protection, even though these may not be appropriate policies for repeated spells of unemployment or inactivity between jobs, for which either opportunities for lifelong learning or encouragement to participate in care work may be more appropriate.

Modernising social protection systems should involve broadening the scope of protection to cover all adults as individuals. It may be possible and necessary to work towards a situation where it can be assumed that normally all fit adults will either be in the labour market or engaged in caring work. This would also provide a basis for regarding periods of care work as periods of other forms of work, which may be compensated directly or may accrue rights to social protection. This approach places all individuals as well as care and wage work on a relatively even footing, providing a more appropriate framework for a policy of maximising employment participation, subject to the constraint of providing appropriate care services and leisure time. However, the emphasis on gainful activity does place a moral responsibility on governments to ensure that access to gainful and satisfying activities can be maintained.

A new approach to social security should provide a basis for rethinking the gender division of labour in the household and for contemplating worksharing. If we move away from the breadwinner model of household organisation as the basis for social protection, worksharing is required, not only in the interests of equity in access to employment, but also to develop an appropriate balance between work and family life. Worksharing does not, as is currently believed, have to be confined to developing part-time work, mainly involving women, but should involve men in particular so that a move to a more even distribution of unpaid work activities could also be achieved. Policies to reduce overtime and standard full-time hours would reduce effective labour supply from prime-age males but permit both a higher level of participation by prime-age women and a longer period of participation by older workers of both sexes.

However, such moves are linked to changes in the gender division of labour and these are likely to be constrained by inequality in the wage structure, and by a large gender pay gap as this reduces the possibility of redistribution of wage and unpaid

work tasks in the household. A similar problem arises with the practicalities of implementing the principle of individualisation of social protection. Individualisation may be necessary both to meet employment objectives (and to reduce incentives towards unprotected employment) and to deal with the problem of increasing household insecurity but without a prior move towards greater gender equality in the labour market, the outcome could be greater gender income inequality in old age.

The final element of modernisation involves changing attitudes to time out of employment. It may be necessary to move away from the concept of unemployment defined as a passive state and distinct from inactivity and instead encourage all adults without jobs to spend time in education or in care work or to combine these activities with active job search where appropriate.

Box 5.1. Modernising social security

- Social protection should cover all adults as individuals, but with suitable protection for those in low wage jobs or with interrupted work histories
- All forms of atypical work to be brought within social protection
- Adults to accrue social protection rights when engaged in care work
- Policies to integrate the unemployed/non-employed into work need to be backed by rights to quit jobs without risk to social protection
- Periods out of employment should be spent not only in waiting for work and looking for work but also in education, training or care work
- Consideration should be given to encouraging worksharing by full-timers particularly where very long hours are worked
- Reform of the labour market, including wage structures, may be necessary to complement or precede full modernisation of social protection.

Taking a long term perspective, the main way in which the employment rate in Europe can be effectively improved is either through increasing the employment rate of prime-age workers or that of older workers (considered below). The most substantive move towards a higher rate for prime age workers will come through a continuation of the move towards dual earner households and not solely through integrating the unemployed into work. The move to dual earner households will be dependent upon policies to modernise social security, as outlined above.

All policies to make work pay have been conditioned by the more immediate requirement to reduce the costs of social security. In the longer term the policies may not be incompatible, but there is evidence of governments proclaiming the need for active labour market policies on the one hand while reducing them on the other in favour of passive policies which reduce expenditure in the short term (Chassard 1996).

The means-testing of benefits appears to many governments to have the benefit of reducing social protection expenditure while at the same time creating incentives for individuals to cut short search time and to move off benefits into employment. The OECD (1996) has revealed the remarkable increase in means-testing associated with both these aspects of the policy. There are five different conditions under which means testing of benefits are likely to increase:

- where there is a reduction in the time for which persons can claim unemployment insurance, thus leading to an earlier transition from unemployment insurance benefits to unemployment assistance;
- when the value of unemployment insurance benefits is reduced and there is a consequent increase in claims for supplementary means-tested benefits even when the person is in receipt of insurance based benefits;
- where there is a tightening of the eligibility requirements for insurance benefits;
- where in-work benefits or opportunities to combine work and benefits are introduced;
- and where a change in labour market conditions renders fewer people in the labour market eligible for insurance benefits, either because of increasingly flexible jobs which do not allow eligibility credits to be accumulated or because of lower demand for labour leading to the exhaustion of benefits.

Each of these conditions has been evident in the EU over recent years and has resulted in a large share of the unemployed not being in receipt of either insurance-based or any other form of benefit. The impact of means-testing on incentives to work are most extreme where those entering unemployment are relatively quickly trapped within a network of means-tested benefits, due to low eligibility, to short entitlements or to low insurance benefits requiring immediate access to supplementary means-tested benefits. These conditions place pressure on other household members to reduce their earnings or exclude themselves from the labour market, instead of the household as a whole seeking a labour-market-based solution to the unemployment of one of its members.

Means-testing has also increased, however, as part of an active policy of encouraging individuals to move from welfare to work, through either the provision of inwork benefits for those on low paid jobs, or through allowing the unemployed (as opposed to the spouses of the unemployed) to work part-time and retain benefits. Means-testing occurs because benefits are reduced and then eliminated as earnings increase. These policies are recognised to create incentives towards partial or low paid activity but to create disincentives to work more hours, to move to better paid jobs or indeed for spouses to enter work, thus moving the poverty trap to a new position of part work, part benefits instead of all benefits (OECD 1996; Doudey 1998). Some of the worst effects of these policies could be avoided if social security reform were reinforced by minimum wage policies. More attention needs to be paid to conditions where low wages can lead to rigidity in the labour market and to reduced opportunities to move off welfare into work.

In line with the policy to maximise the employment rate, it is important to move away from an emphasis in employment policy which prioritises those entitled to passive benefits. The policy objective of maintaining an active working age population must involve giving everyone who has been out of work for some time access to active labour market policies, in particular retraining programmes. The focus of active labour market policies on those in receipt of benefits tends to downgrade the status of these programmes to attempts at reducing the numbers on benefits (by squeezing out benefit fraudsters) and not as fully fledged training programmes designed to enhance employability. Opportunities for those without work to be gainfully employed in care work or in education and training need to be combined with sensible and non-discriminatory policies to move people from welfare to work.

In general there also needs to be a reduction in the risks associated with moving from welfare to wage work. These risks are essentially of four kinds; firstly not being able to find acceptable and affordable childcare; secondly that the job is not acceptable, perhaps because the employer changes the terms and conditions on offer; thirdly that if forced for such reasons to leave the job that entitlements to benefits will be affected; and fourthly, uncertainty over access to benefits or tax rebates while in work, and thus uncertainty over whether or not work pays. Governments can intervene to reduce some of these uncertainties, by providing access to childcare based on, perhaps, means-tested scales; by providing immediate access to information on benefits and tax rebates; and by not imposing heavy penalties on those who quit jobs or who have repeated rather than continuous spells of unemployment. However, such policies have cost implications which governments may be unwilling to contemplate.

Finally, if the objective of moving to dual earner families is accepted - and this policy may be the only realistic way for families of low skilled workers to escape the poverty trap - then it is necessary for governments to recognise the significant role that working-time policy can play in achieving that objective.

Box 5.2. Making work pay

- Means-testing of benefits needs to be reduced and spouses provided with right to independent income
- Active labour market policies need to be made available to inactive as well as unemployed
- Passive and active policies need to be integrated but not so that those engaged in care work are not able to claim benefits
- The risks associated with moving from welfare to work need to be reduced
- Obstacles to integration associated with too low wages as well as too high wages need to be recognised and remedied
- The impact of in-work benefits, including incentives to work part-time, on the structure of wages as well as on the structure of work incentives needs to be considered
- Policies which provide indirect support for working (e.g. childcare facilities, extra financial support for large families), may cause fewer problems than policies which involve financial subsidies
- Working-time policy could facilitate the move towards dual earner households.

Older working-age population

Evidence from a wide range of countries that have experienced decreasing activity rates among older workers has revealed that state policy is only one factor in this trend. Indeed the OECD (1995a,b) has found evidence of substitution: that is policies introduced by employers or through collective bargaining substituting for the absence of state policies supporting early retirement. As the OECD pointed out, the government can provide a good example to private sector employers in its role as a public sector employer and not only limit early retirement options which have tended to be prevalent in the public sector, but, more importantly, reduce the barriers to redeployment by reducing age discrimination in recruitment practices.

The main role of government must be to try to change the social convention that early retirement is an acceptable solution to problems of unemployment, downsizing and restructuring. The creation of new part-time work opportunities in higher as well as lower level jobs could be of assistance to older workers of both sexes and not solely to those with caring responsibilities as organisations may be happier to recruit older workers into part-time jobs where their experience could be drawn upon without requiring them to take on extremely demanding jobs requiring very long hours of work.

Particular attention may need to be paid to problems of older workers in countries with a tradition of rising earnings over the whole lifecycle, which may place particular obstacles in the way of older workers seeking retention or redeployment. Extreme scenarios where older workers would face pay cuts on grounds of assumed diminished productivity with age may not be acceptable or reasonable, but it may be appropriate to design payment systems to provide for relatively flat earnings profiles from middle age until retirement. Employers and governments need to look at the wisdom of these remuneration systems both for personnel planning and for the objective of retaining older workers within the active labour force.

To the extent that there are economic or productivity-related reasons for the employer policy of encouraging early retirement, new policies will be required to encourage redeployment and retraining within the firm or retraining and recruitment on the external labour market. These policies need to be combined with a much more root and branch reappraisal of social protection which enhances social protection for all part-timers (see above).

Box 5.3. Policies to counteract the tendency towards early retirement

- Legislation against age discrimination in recruitment to be introduced
- Public sector to introduce new policies with respect to age discrimination in recruitment and to phase out complete early retirement packages, to be replaced by phased or gradual retirement
- Benefits systems to be reviewed to look for opportunities to combine work and benefits, with particular attention paid to opportunities for part-time work for the partially disabled (but with consideration given to the discriminatory impact of such policies on other part-time workers)
- Incentives to redeploy or retrain older workers or to hire older workers
- Retraining opportunities for displaced older workers
- Financial disincentives to early retirement schemes which involve less than full actuarial reductions
- Opportunities to work part-time in a wide range of jobs for older workers
- Attention to be paid to the design of payments systems so that they do not discourage recruitment of older workers

5.3 The orientation of education and training policies.

Education and training impact on both the quantity and the quality of European labour supply. The impact on quantity is in two contradictory directions: reducing participation among younger people but increasing participation for prime-age and older workers.

The policy issues related to the use of education and training policies to develop and maintain the quality of European labour supply have been discussed in detail in chapter 4. The main policy conclusions or the main areas identified for possible policy activity arising from that discussion are summarised below.

Initial training and education

The following measures should be considered:

- Completion of the generalisation of post compulsory secondary school education;
- Continued increase in higher level education, both university and non-university, particularly in countries with low participation rates;
- Protection for students from low income families from cutbacks in state support for higher education;
- Innovative combinations of training with education to improve the depth of vocational training and to reduce the tendency for training to be considered either a second best alternative or even a third best, compared to direct employment;
- Policies to ensure the credibility of training schemes with employers and with employees.

Skill transferability

The policy of skill transferability may enhance the flexibility of the labour market and protect investments in skills but could prevent moves to new forms of work and work organisation. Policy-makers thus need to:

- consider if it is possible or desirable to identify a set of transferable occupational-based skills or whether organisations must have the freedom to move away from these labour market categories and organise work and training according to the needs of the individual business;
- where transferable skills standards exist or can be established, develop mechanisms for updating and developing the content of training in line with changing needs;
- provide all employees with rights for training in transferable skills as it may only be the already skilled who are able to negotiate access to transferable skills as part of their employment conditions.

Skill maintenance and development over the lifecycle

Policy needs to be developed to provide opportunities for four different groups

For those already in the labour market:

- access needs to be secured beyond the key skilled workers, through subsidies, leave schemes and the like, if lifelong learning is to provide compensation for gaps in education and training and not only result in uneven accumulation of education and training;
- lifelong learning needs to involve education as well as training opportunities.

For those who have missed out on initial education and training:

- second chances for participating in education and training need to be provided on a part-time basis but with some provisions for accreditation of prior learning
- special attention needs to be paid to cohorts which entered the labour market in periods of very high unemployment and who may suffer lifelong disadvantage.

For those who have lost contact with the labour market:

- access to retraining and life-long learning opportunities needs to be extended to the inactive as well as the long-term unemployed;
- policies to reduce the likelihood of individuals losing complete contact with the labour market need to be developed, such as enhanced maternity and parental leaves, childcare facilities, opportunities for other care leaves and for retraining sabbaticals;
- policies to reduce age discrimination in recruitment need to be introduced.

For those facing redundancy or obsolescence of skills:

- policies need to be devised which combine the advantages of experience with up-to-date knowledge and skills - through training and redeployment programmes for displaced older workers;
- care should be taken to ensure that policies do not disproportionately focus on skilled workers, industrial workers or displaced workers from large firms through opening up access to schemes for all unemployed/seeking work;
- tougher restrictions on age discrimination need to be introduced;
- the problems of retraining/skill obsolescence for older workers should not be exaggerated in case this gives legitimacy to early retirement practices;
- fiscal and other incentives to adopt early retirement policies for coping with downsizing should be removed.

Labour market structures to promote skill development.

Four issues can be identified for consideration:

1. Training and skill development for those workers confined to atypical or marginal jobs.
2. The organisation and delivery of training provision in organisations such as SMEs.
3. The development of promotion paths out of low skill jobs and the breaking down of occupational segregation to reduce underemployment and confinement to low skill areas.
4. The promotion of change in employer attitudes relating to selection criteria for recruitment or redundancy, particularly with respect to age, gender, race and initial education.

6. CONCLUSIONS: TOWARDS A COMPREHENSIVE FRAMEWORK

This study has explored the future prospects for European labour supply within a broad institutional framework, contrasting with the traditional narrow economic approach to labour supply. Moves towards dual earner households and more complex and varied lifestyles cannot simply be explained by references to changing prices. Social preferences have also been changing which make unlikely any return to single earner male breadwinner households as the dominant norm. Similarly, trends towards early retirement reflect the major restructuring of the labour market that has taken place over recent years and the role of public and employer policy in managing these changes. Variations in the quality of European labour supply are related more to the institutional arrangements for education and training, and to policies to maintain or upgrade skills over the lifecycle, than to variations in individualised preferences towards investment in human capital.

Variations in employment rates between EU Member States can clearly be linked to institutional arrangements:

- differences in the role of the public or private sector in care provision versus family-based services;
- differences in prescribed periods of education or training and in the provision of education or training on a broad or a narrow front;
- differences in public policy towards retirement, including age of retirement, early retirement schemes and state pension systems.

However, a focus on societal systems and their interlocking nature points to the restricted scope for using simple policy measures limited to only one dimension of the societal system to change behaviour. Yet the adoption of a societal systems approach, as has been stressed throughout this study, brings with it the danger of a static and purely descriptive approach to European labour supply which fails to predict or analyse the likely future changes. The rapid changes that have taken place in European labour supply patterns over recent decades could not have been predicted or explained either by the traditional economics preference orientated approach or by a static societal systems approach. While predicting the future remains inherently problematic, it is essential to build a dynamic perspective, which stresses the importance of each country's path-specific evolution but which also allows for change and development in these key institutional arrangements and social norms.

These dynamic changes are by no means necessarily susceptible to easy manipulation by policy-makers. Although governments are becoming concerned with trends in household and family formation, including single parent households on the one hand and low fertility on the other, they cannot do much to influence these trends. *Changes in women's participation provides another clear example of a trend which may have been induced in the first place by the expansion of the service sector and the growth of the welfare state, but which now has its own independent dynamic.*

In this context, changes in policy may be needed as much to modernise institutions to match with current conditions and behaviour as to modify behavioural norms. For example, reform of the welfare state is already needed to bring the system more into line with changes in household organisation on the one hand and the proliferation of diverse employment forms on the other. Similarly, training and

education systems need rethinking to deal with changing labour market participation patterns, including provision, for example, for training in atypical jobs and small firms, and to adjust to new needs including technological change over a participant's working life.

The types of developments that can be seen as the result of a failure to modernise systems to take into account new social needs and realities include:

- increasing poverty among single-parent and female-headed households in prime and old age;
- the increasing divisions in access to skill and problems of skill obsolescence and deterioration resulting from the growth of flexible labour markets without prior reform of education and training systems;
- the use of early retirement as a short term solution to problems of downsizing without proper consideration of the costs of maintaining the early retired into old age;
- the neglect of the interests of children because of a failure to provide an adequate replacement for the care provided within the stable single breadwinner household.

A distinction may need to be made between policy proposals aimed at resolving current or anticipated problems and mismatches and policy agendas aimed at radical transformations of social and economic systems, with the objective of raising European employment rates.

With these provisos in mind, it is possible to identify the key areas for policy innovation while leaving the specific details of the systems to be developed at the national level. The priority areas for policy development to facilitate the move towards a high European employment rate, based on a high quality labour force and the maintenance and development of a comprehensive social protection system, include:

- the development of support for care work, both childcare and elder care, including the provision of direct care services, in order to facilitate the further integration of women into the economy and to ensure that the move away from sole dependence on unpaid labour leads to an improvement and not a deterioration in the quality of care;
- the creation of co-ordinated and flexible care policies to facilitate integration over different phases of childcare and to allow for differences in delivery of care;
- the establishment of a more universal and inclusive social protection system, covering both atypical work forms and participants with interrupted or non-standard participation paths;
- the minimisation of the use of means-tested benefits which confine whole households to welfare support and, instead, the development of policies to facilitate both adults in a household moving from welfare into work;
- the provision of greater rather than reduced rights (to social protection and to training for example) for the flexible worker;
- the reassessment of the employment system to remove obstacles to more equal participation in wage work within households (including very long working hours and wide wage differentials) and obstacles to integration for the unemployed (including too low as well as too high wages);
- the active promotion of worksharing through restrictions on overtime work and gradual reductions in standard full-time hours to support the move towards dual earner households and to facilitate the redivision of both paid and unpaid labour;

- the removal of incentives which encourage early retirement and the development of policies to facilitate gradual or partial retirement;
- the implementation of legislation to prevent age discrimination in recruitment;
- the encouragement of the creation of training and career opportunities within low paid/low skill jobs;
- the development of policies aimed at reducing underemployment to release unskilled jobs for the unemployed and not at expanding the low skill sector;
- the completion of the generalisation of post-compulsory secondary education and expansion of access to higher education in countries with low shares in higher education;
- the establishment of lifelong learning opportunities for all within and outside the labour market;
- the further integration of education and training to maintain employability and to raise the status of training.

References

- Bradshaw, J., Ditch, J., Holmes, H. and Whiteford, P. (1993) *Support for Children: A Comparison of Arrangements in 15 Countries*. London: HMSO.
- Bettio, F. and Villa, P. (1996) *A Mediterranean Perspective on the Breakdown of the Relationship between Participation and Fertility*. Working Paper, University of Sienna.
- Bettio, F., Rubery, J. and Smith, M. (1996) 'Gender, Flexibility and New Employment Relations'. Paper presented to the Workshop on Women and Work in Europe, Turin, Italy, April 1996.
- Boje, T.P. (1993) 'Women between work and family - Employment patterns for female workers in different welfare state systems (The U.S. and Denmark)' Paper presented at Comparative Research on Welfare States in Transition, ISA Research Committee 19, Oxford, 9-12 September 1993.
- Boje, T.P. (1994) 'Occupational Segregation, Mobility Patterns and Gender' Paper presented at the 18th. World Congress of Sociology, Bielefeld, Germany, July.
- Bosch, G. (1993) 'Vocational training and changing patterns of labour relations in Germany' in G. Laflamme et al. *Vocational Training, International Perspectives*. Geneva, Quebec: International Labour Office and University of Laval, Department of Industrial Relations.
- Cappelli, P. (1995) 'Rethinking Employment', *British Journal of Industrial Relations* 33, 4: 563-95.
- Casey, B. and Laczko, F. (1989) 'Early Retirement, a Long-Term Unemployment? The Situation of Non-Working Men Age 55-64 from 1979 to 1986', *Work, Employment and Society* 3, 4.
- Castro, A., Méhaut, P. and Rubery, J. (1992) *International Integration and Labour Market Organisation*. London: Academic Press.
- Chassard, Y. (1996) *How to make social protection more employment friendly?* Commission of the European Communities COM (97).
- CEC (Commission of the European Communities) (1993) *Growth, Competitiveness, Employment: The Challenges and Ways Forward into the 21st Century: White Paper*. Luxembourg: Office for Official Publications of the European Community.
- CEC (Commission of the European Communities) (1997) *Modernising and Improving Social Protection in the European Union*. Luxembourg: Office for Official Publications of the European Community.
- Crouch, C. (1997) 'Skills-based full employment: the latest philosopher's stone' *British Journal of Industrial Relations* September.
- Daly, M. (1996) 'Social Security, Gender and Equality in the European Union'. Working Paper.
- Daniel, W.W. (1990) *The Unemployed Flow*. London: Policy Studies Institute.
- Dex, S. and Shaw, L. (1986) *British and American Women at Work: Do Equal Opportunities Policies Matter?* London: Macmillan.
- Dex, S., Walters, P. and Alden, D.M. (1993) *French and British Mothers at Work*. London: Macmillan.
- Dølvik, J.E. and Steen, A.H. (eds.) *Making Solidarity Work?* Norway: Scandinavian University Press.
- Doudeyns, M. (1998) 'Are Unemployment and Related Welfare Benefits a Disincentive to take up Part-time Employment?' in J. O'Reilly and C. Fagan (eds.) *Part-time Prospects: Part-time work in Europe, North America and the Pacific Rim*. London: Routledge.
- Ellingseater, A., and Rubery, J. (1997) 'Gender Relations and the Norwegian Labour Market Model' in Dølvik, J.E. and Steen, A.H. (eds.) *Making Solidarity Work?* Norway: Scandinavian University Press.

ERECO (European Economic Research and Advisory Consortium) (1994) *Medium Term Employment Forecasts by EU Regions and sectors of industry 1991-1997*. Study on behalf of Commission of the European Communities DGV.

Esping-Andersen, G. (1990) *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press.

Esping-Andersen, G. (1995) 'Europe's Welfare States at the End of the Century: Frozen Fordism or Post-industrial Adaptation?' Paper presented at the 17th conference of the International Working Party on Labour Market Segmentation, Siena, July.

Esping-Andersen, G. (1997) 'The double problem of co-ordination in contemporary welfare states' Paper for conference on Social Policy and Economic Performance, Dutch Ministry of Social Affairs and the European Commission, January, Amsterdam.

European Commission (1997) *Demographic Report 1997*. Luxembourg: Office for Official Publications of the European Community.

European Commission (1996) *Tableau de Bord*. Luxembourg: Office for Official Publications of the European Community.

Eurostat (1992) *Labour Force Survey: Methods and definitions*, Luxembourg: Office for Official Publications of the European Community.

Eyraud, F., Marsden, D. and Silvestre, J.-J. (1990) 'Occupational and Internal Labour Markets in Britain and France', *International Labour Review*.

Fagan, C. and Rubery, J. (1996) 'Transitions between Family Formation and Paid Employment' in Schmid, G., O'Reilly, J. and Schömann, K. (eds) *International Handbook of Labour Market Policy and Evaluation*. Cheltenham: Edward Elgar.

Fagan, C. and Rubery, J. (1996) 'The salience of the part-time divide in the European Union' *European Sociological Review* 12, 6: 227-250.

Freeman, R. (1994) 'Jobs in the USA' *New Economy* 1, 1.

Freeman, R. (1996) 'Why Do So Many Young American Men Commit Crimes and What Might We Do About It?', *Journal of Economic Perspectives*, Vol. 10, Pages 25-42.

Freysson, L. (1996) 'Potential use of the Community Labour Force Survey in the analysis of the Young', *Network on Transition in Youth*, Provence Workshop - La Ciotat, September 18-21 1996.

Gambetta, D. (1987) *Were they Pushed or Did They Jump?: Individual Decision Mechanisms in Education*, Michigan, Lewis Publishers.

Gustafsson, S. (1996) 'Tax Regimes and Labour Market Performance' in Schmid, G., O'Reilly, J. and Schömann, K. (eds) *International Handbook of Labour Market Policy and Evaluation*. Cheltenham: Edward Elgar.

Hakim, C. (1991) 'Grateful Slaves and Self-made Women: Fact and Fantasy in Women's Work Orientations' in *European Sociological Review* 7, 2: 101-21.

Holtermann, S. and Clarke, K. (1992) *Parents, Employment Rights and Childcare*. Research Discussion Series No. 4 Manchester, Equal Opportunities Commission.

Humphries, J. and Rubery, J. (1984) 'The reconstitution of the supply side of the labour market: the relative autonomy of social reproduction', *Cambridge Journal of Economics*, December.

Hutson, S. and Jenkins, R. (1989) *Taking the Strain*, Milton Keynes, Open University Press.

IFO (1994) *Long Term Labour Force Scenarios for the European Free Trade Association*. Munich, IFO.

IFO (1995) *Long Term Labour Force Scenarios for the European Union*. Munich, IFO.

- Joshi, H. and Davies, H. (1992) 'Day Care in Europe and Mothers' Foregone Earnings' in *International Labour Review* 132, 6: 561-79.
- Lane, C. (1989) *Management and Labour in Europe*. Cheltenham: Edward Elgar.
- Larsson, A. (1996) 'The next ten years'. Working paper.
- Lewis, J. (1992) 'Gender and the development of welfare regimes', *Journal of European Social Policy* 2, 3.
- Maier, F. (1995) 'Skill Formation and Equal Opportunity - A Comparative Perspective' in J. Humphries and J. Rubery (eds.) *The Economics of Equal Opportunities*. Manchester, Equal Opportunities Commission.
- Maier, F., Quack, S., Martschink, A., Rapp, Z. (1996) 'Trends and Prospects for Women's Employment in Germany in 1990's', Working Paper, Manchester School of Management, UMIST.
- Marsden, D. (1986) *The End of Economic Man? Custom and Competition in Labour Markets*. Brighton: Wheatsheaf Books Ltd.
- Maurice, M., Sellier, F. and Silvestre, J. J., (1986) 'The Social Foundations of Industrial Power'. Cambridge, Mass., MIT Press.
- McRae, S. (1991) *Maternity Rights in Britain*. London: Policy Studies Institute.
- Méhaut, P. (1992) 'Further education, vocational training and the labour market: the French and German systems compared' in A. Castro, P. Méhaut and J. Rubery (eds.) *International Integration and Labour Market Organisation*. London: Academic Press.
- Millar, J and Warman, A, (1996) 'Family Obligations in Europe', London Family Policy Studies Centre.
- Mincer, J. (1985) 'Inter-country comparisons of labour force trends and of related developments: an overview', *Journal of Labor Economics* 3, 2.
- Mingione, E., and Magatti, M. (1994) *Report to the European's Commission's Employment Task Force (Directorate General V)*, follow up to the White Paper, Supplement 3/95, European Commission.
- Mückenberger, U. (1995) 'Working time and a modernised trade union policy', in J. Lapeyre and R. Hoffman (eds.) *A time for working - a time for living* Brussels: European Trade Union Institute/ Labour Research Department.
- Naschold, F., and de Vroom, B. (1993) *Regulating Employment and Welfare*, Walter de Gruyter, Berlin.
- Naschold, F., de Vroom, B., and Casey, B. (1993) 'An international comparison between firms and countries', in Naschold, F., and de Vroom, B. (1993) *Regulating Employment and Welfare*, Walter de Gruyter, Berlin.
- OECD (1992) *Employment Outlook*. Paris, OECD.
- OECD (1994) *Women and Structural Change*. Paris, OECD.
- OECD (1995a) *The Transition from Work to Retirement*, Paris, OECD.
- OECD (1995b) *The Labour Market and Older Workers*, Paris, OECD.
- OECD (1996a) *Education at a Glance*. Paris, OECD.
- OECD (1996b) *Employment Outlook*. Paris, OECD.
- Osterman, P. (1988) *Employment Futures*. Oxford: Oxford University Press.
- Polachek, S. and Siebert, W. (1993) *The Economics of Earnings*, Cambridge, CUP.

- Rosen, S. (1995) *Public employment and the welfare state in Sweden*. Occasional Paper no.61. NBER/SNS project, reforming the Welfare State. Stockholm, Centre for Business and Policy Studies.
- Rubery, J. (1992) 'Productive systems, international integration and single European Market' in Castro, A., Méhaut, P. and Rubery, J. (eds.) *International Integration and Labour Market Organisation*. London: Academic press.
- Rubery, J. (1994) 'The British production regime: a societal-specific system?', *Economy and Society*, 23 (3).
- Rubery, J. (1998) 'Part-time work: a threat to labour standards?' in J. O'Reilly and C.Fagan (eds.) *Part-time Prospects: Part-time work in Europe, North America and the Pacific Rim*. London: Routledge.
- Rubery, J. and Fagan, C. (1993) *Occupational Segregation of Women and Men in the European Community*. Social Europe Supplement 3/93. Luxembourg: Office for Official Publications of the European Communities.
- Rubery, J. Smith, M. Fagan, C. and Grimshaw, D. (1998) *Women and the European Employment Rate*, Routledge, London.
- Rubery, J., Smith, M. and Fagan, C. (1997) *Trends and Prospects for Women's Employment in the 1990s*. Report for the European Commission's Network of Experts on the Situation of Women in the Labour Market.
- Schettkat, R. (1989) 'The impact of taxes on female labour supply', *International Review of Applied Economics*, 3.
- Sorge, A. (1991) 'Strategic fit and societal effect: interpreting cross-national comparisons of technology, organisation and human resources', *Organisation Studies*, 12 (2).
- Steedman, H. and Wagner, K. (1987) 'A second look at productivity, machinery and skills in Britain and Germany' in *National Institute Economic Review* 122, November.
- Steedman, H. and Wagner, K. (1989) 'Productivity, machinery and skills: clothing manufacture in Britain and Germany' in *National Institute Economic Review* May.
- Streeck, W. (1989) 'Skills and the limits of neo-liberalism: the enterprise of the future as a place of learning' in *Work, Employment and Society* 3: 90-104.
- Streeck, W. (1992) *Social Institutions and Economic Performance*. London: Sage.
- TNO (1996) *New Long-Term labour force scenarios for the European Union: the approach suggested*. TNO, Delft.
- Trommel, W. and de Vroom, B. (1994) 'The Netherlands: The Loreley-Effect of Early Exit' in Naschold, F. and de Vroom, B. (eds.) *Regulating Employment and Welfare*. Berlin, Walter de Gruyter.
- Tuijnman, A.C. and Schömann, K. (1996) 'Life-long Learning and Skill Formation' in G. Schmid, J. O'Reilly and K. Schömann (eds.) *International Handbook of Labour Market Policy and Evaluation*. Cheltenham: Edward Elgar.

European Commission

The Future European Labour Supply

Luxembourg: Office for Official Publications of the European Communities

1999 — 56 pp. — 21 x 29.7 cm

ISBN 92-828-6432-4

Price (excluding VAT) in Luxembourg: EUR 15

BELGIQUE/BELGIË

Jean De Lannoy
Avenue du Roi 202/Koningslaan 202
B-1190 Bruxelles/Brussel
Tél. (32-2) 538 43 08
Fax (32-2) 538 08 41
E-mail: jean.de.lannoy@infoboard.be
URL: http://www.jean-de-lannoy.be

La librairie européenne/De Europese Boekhandel
Rue de la Loi 244/Wetstraat 244
B-1040 Bruxelles/Brussel
Tél. (32-2) 295 26 39
Fax (32-2) 735 08 60
E-mail: mail@libeurop.be
URL: http://www.libeurop.be

Moniteur belge/Belgisch Staatsblad
Rue de Louvain 40-42/Leuvenseweg 40-42
B-1000 Bruxelles/Brussel
Tél. (32-2) 552 22 11
Fax (32-2) 511 01 84

DANMARK

J. H. Schultz Information A/S
Herstedvang 10-12
DK-2620 Albertslund
Tlf. (45) 43 63 23 00
Fax (45) 43 63 19 69
E-mail: schultz@schultz.dk
URL: http://www.schultz.dk

DEUTSCHLAND

Bundesanzeiger Verlag GmbH
Vertriebsabteilung
Amsterdamer Straße 192
D-50735 Köln
Tel. (49-221) 97 66 80
Fax (49-221) 97 66 82 78
E-Mail: vertrieb@bundesanzeiger.de
URL: http://www.bundesanzeiger.de

ΕΛΛΑΔΑ/GREECE

G. C. Eleftheroudakis SA
International Bookstore
Panepistimiou 17
GR-10564 Athina
Tel. (30-1) 331 41 80/1/2/3/4/5
Fax (30-1) 323 98 21
E-mail: elebooks@netor.gr

ESPAÑA

Boletín Oficial del Estado
Trafalgar, 27
E-28071 Madrid
Tel. (34) 915 38 21 11 (Libros),
913 84 17 15 (Suscrip.)
Fax (34) 915 38 21 21 (Libros),
913 84 17 14 (Suscrip.)
E-mail: clientes@com.boe.es
URL: http://www.boe.es

Mundi Prensa Libros, SA
Castelló, 37
E-28001 Madrid
Tel. (34) 914 36 37 00
Fax (34) 915 75 39 98
E-mail: libreria@mundiprensa.es
URL: http://www.mundiprensa.com

FRANCE

Journal officiel
Service des publications des CE
26, rue Desaix
F-75727 Paris Cedex 15
Tél. (33) 140 58 77 31
Fax (33) 140 58 77 00

IRELAND

Government Supplies Agency
Publications Section
4-5 Harcourt Road
Dublin 2
Tel. (353-1) 661 31 11
Fax (353-1) 475 27 60
E-mail: opw@iol.ie

ITALIA

Licosa SpA
Via Duca di Calabria, 1/1
Casella postale 552
I-50125 Firenze
Tel. (39-55) 064 54 15
Fax (39-55) 064 12 57
E-mail: licosa@ftbcc.it
URL: http://www.ftbcc.it/licosa

LUXEMBOURG

Messageries du livre SARL
5, rue Raiffeisen
L-2411 Luxembourg
Tél. (352) 40 10 20
Fax (352) 49 06 61
E-mail: mdl@pt.lu
URL: http://www.mdl.lu

Abonnements:
Messageries Paul Kraus
11, rue Christophe Plantin
L-2339 Luxembourg
Tél. (352) 49 98 88-8
Fax (352) 49 98 88-444
E-mail: mpk@pt.lu
URL: http://www.mpk.lu

NETERLAND

SDU Servicecentrum Uitgevers
Christoffel Plantijnstraat 2
Postbus 20014
2500 EA Den Haag
Tel. (31-70) 378 98 80
Fax (31-70) 378 97 83
E-mail: sdu@sdu.nl
URL: http://www.sdu.nl

ÖSTERREICH

Manz'sche Verlags- und Universitätsbuchhandlung GmbH
Kohlmarkt 16
A-1014 Wien
Tel. (43-1) 53 16 11 00
Fax (43-1) 53 16 11 67
E-mail: bestellen@manz.co.at
URL: http://www.austria.EU.net:81/manz

PORTUGAL

Distribuidora de Livros Bertrand Ld.ª
Grupo Bertrand, SA
Rua das Terras das Vales, 4-A
Apartado 60037
P-2700 Amadora
Tel. (351-1) 495 90 50
Fax (351-1) 496 02 55

Imprensa Nacional-Casa da Moeda, EP
Rua Marquês Sá da Bandeira, 16-A
P-1050 Lisboa Codex
Tel. (351-1) 353 03 99
Fax (351-1) 353 02 94
E-mail: del.incm@mail.telepac.pt
URL: http://www.incm.pt

SUOMI/FINLAND

Akateeminen Kirjakauppa/Akademiska Bokhandeln
Keskuskatu 1/Centralgatan 1
PL/PB 128
FIN-00101 Helsinki/Helsingfors
P./tfn (358-9) 121 44 18
F./fax (358-9) 121 44 35
Sähköposti: akatilaus@akateeminen.com
URL: http://www.akateeminen.com

SVERIGE

BTJ AB
Traktorvägen 11
S-221 82 Lund
Tfn (46-46) 18 00 00
Fax (46-46) 30 79 47
E-post: btjeu-pub@btj.se
URL: http://www.btj.se

UNITED KINGDOM

The Stationery Office Ltd
International Sales Agency
51 Nine Elms Lane
London SW8 5DR
Tel. (44-171) 873 90 90
Fax (44-171) 873 84 63
E-mail: ipa.enquiries@theso.co.uk
URL: http://www.theso.co.uk

ISLAND

Bokabud Larusar Blöndal
Skólavörðustíg, 2
IS-101 Reykjavík
Tel. (354) 551 56 50
Fax (354) 552 55 60

NORGE

Swets Norge AS
Ostenjoveien 18
Boks 6512 Etterstad
N-0606 Oslo
Tel. (47-22) 97 45 00
Fax (47-22) 97 45 45

SCHWEIZ/SUISSE/SVIZZERA

Euro Info Center Schweiz
c/o OSEC
Stampfenbachstraße 85
PF 492
CH-8035 Zürich
Tel. (41-1) 365 53 15
Fax (41-1) 365 54 11
E-mail: eics@osec.ch
URL: http://www.osec.ch/eics

BÄLGARIJA

Europress Euromedia Ltd
59, blvd Vitosha
BG-1000 Sofia
Tel. (359-2) 980 37 66
Fax (359-2) 980 42 30
E-mail: Milena@mbox.cit.bg

ČESKÁ REPUBLIKA

ÚSIS
NIS-prodejna
Haveļkova 22
CZ-130 00 Praha 3
Tel. (420-2) 24 23 14 86
Fax (420-2) 24 23 11 14
E-mail: nkposp@dec.nis.cz
URL: http://usis.cz

CYPRUS

Cyprus Chamber of Commerce and Industry
PO Box 1455
CY-1509 Nicosia
Tel. (357-2) 66 95 00
Fax (357-2) 66 10 44
E-mail: info@ccci.org.cy

EESTI

Eesti Kaubandus-Tööstuskoda (Estonian Chamber of Commerce and Industry)
Toom-Kooli 17
EE-0001 Tallinn
Tel. (372) 646 02 44
Fax (372) 646 02 45
E-mail: einfo@koda.ee
URL: http://www.koda.ee

HRVATSKA

Mediatriade Ltd
Pavla Hatza 1
HR-10000 Zagreb
Tel. (385-1) 43 03 92
Fax (385-1) 43 03 92

MAGYARORSZÁG

Euro Info Service
Európa Ház
Margitsziget
PO Box 475
H-1396 Budapest 62
Tel. (36-1) 350 80 25
Fax (36-1) 350 90 32
E-mail: euroinfo@mail.mata.v.hu
URL: http://www.euroinfo.hu/index.htm

MALTA

Miller Distributors Ltd
Malta International Airport
PO Box 25
Luqa LQA 05
Tel. (356) 66 44 88
Fax (356) 67 67 99
E-mail: gwrith@usa.net

POLSKA

Ars Polona
Krakowskie Przedmiescie 7
Skr. pocztowa 1001
PL-00-950 Warszawa
Tel. (48-22) 626 12 01
Fax (48-22) 626 62 40
E-mail: ars_pol@bevy.hsn.com.pl

ROMÂNIA

Euromedia
Str. G-ral Berthelot Nr 41
RO-70749 Bucuresti
Tel. (40-1) 315 44 03
Fax (40-1) 315 44 03

RUSSIA

CCEC
60-Ietiya Oktyabrya Av. 9
117312 Moscow
Tel. (7-095) 135 52 27
Fax (7-095) 135 52 27

SLOVAKIA

Centrum VTI SR
Nám. Slobody, 19
SK-81223 Bratislava
Tel. (421-7) 531 83 64
Fax (421-7) 531 83 64
E-mail: europ@tbb1.sltk.stuba.sk
URL: http://www.sltk.stuba.sk

SLOVENIA

Gospodarski Vestnik
Dunajska cesta 5
SLO-1000 Ljubljana
Tel. (386) 611 33 03 54
Fax (386) 611 33 91 28
E-mail: europ@gvestnik.si
URL: http://www.gvestnik.si

TÜRKIYE

Dünya İnfotel AS
100, Yil Mahallesi 34440
TR-80050 Bagcilar-Istanbul
Tel. (90-212) 629 46 89
Fax (90-212) 629 46 27
E-mail: infotel@dunya-gazete.com.tr

AUSTRALIA

Hunter Publications
PO Box 404
3067 Abbotsford, Victoria
Tel. (61-3) 94 17 53 61
Fax (61-3) 94 19 71 54
E-mail: jpdavies@ozemail.com.au

CANADA

Les éditions La Liberté Inc.
3020, chemin Sainte-Foy
G1X 3V Sainte-Foy, Québec
Tel. (1-418) 658 37 63
Fax (1-800) 567 54 49
E-mail: liberte@mediom.qc.ca

Renouf Publishing Co. Ltd
5369 Chemin Canotek Road Unit 1
K1J 9J3 Ottawa, Ontario
Tel. (1-613) 745 26 65
Fax (1-613) 745 76 60
E-mail: order.dept@renoufbooks.com
URL: http://www.renoufbooks.com

EGYPT

The Middle East Observer
41 Sherif Street
Cairo
Tel. (20-2) 393 97 32
Fax (20-2) 393 97 32
E-mail: order_book@meobserver.com.eg
URL: www.meobserver.com.eg

INDIA

EBIC India
3rd Floor, Y. B. Chavan Centre
Gen. J. Bhosale Marg.
400 021 Mumbai
Tel. (91-22) 282 60 64
Fax (91-22) 285 45 64
E-mail: ebic@giasbrm01.vsnl.net.in
URL: http://www.ebicindia.com

ISRAËL

ROY International
41, Mishmar Hayarden Street
PO Box 13056
61130 Tel Aviv
Tel. (972-3) 649 94 69
Fax (972-3) 648 60 39
E-mail: royil@netvision.net.il

Sub-agent for the Palestinian Authority:

Index Information Services

PO Box 19502
Jerusalem
Tel. (972-2) 627 16 34
Fax (972-2) 627 12 19

JAPAN

PSI-Japan
Asahi Sanbancho Plaza #206
7-1 Sanbancho, Chiyoda-ku
Tokyo 102
Tel. (81-3) 32 34 69 21
Fax (81-3) 32 34 69 15
E-mail: books@psi-japan.co.jp
URL: http://www.psi-japan.com

MALAYSIA

EBIC Malaysia
Level 7, Wisma Hong Leong
18 Jalan Perak
50450 Kuala Lumpur
Tel. (60-3) 262 62 98
Fax (60-3) 262 61 98
E-mail: ebic-kl@mol.net.my

PHILIPPINES

EBIC Philippines
19th Floor, PS Bank Tower
Sen. Gil J. Puyat Ave. cor. Tindalo St.
Makati City
Metro Manila
Tel. (63-2) 759 66 80
Fax (63-2) 759 66 90
E-mail: eccpcom@globe.com.ph
URL: http://www.eccp.com

SOUTH KOREA

Information Centre for Europe (ICE)
204 Woo Sol Parktel
395-185 Seogyo Dong, Mapo Ku
121-210 Seoul
Tel. (82-2) 322 53 03
Fax (82-2) 322 53 14
E-mail: euroinfo@shinbriro.com

THAILAND

EBIC Thailand
29 Vanissa Building, 8th Floor
Soi Chidlom
Ploenchit
10330 Bangkok
Tel. (66-2) 655 06 27
Fax (66-2) 655 06 28
E-mail: ebicbkk@ksc15.th.com
URL: http://www.ebicbkk.org

UNITED STATES OF AMERICA

Bernan Associates
4611-F Assembly Drive
Lanham MD20706
Tel. (1-800) 274 44 47 (toll free telephone)
Fax (1-800) 865 34 50 (toll free fax)
E-mail: query@bernan.com
URL: http://www.bernan.com

ANDERE LÄNDER/OTHER COUNTRIES/AUTRES PAYS

Bitte wenden Sie sich an ein Büro Ihrer Wahl / Please contact the sales office of your choice / Veuillez vous adresser au bureau de vente de votre choix

Price (excluding VAT) in Luxembourg: EUR 15



OFFICE FOR OFFICIAL PUBLICATIONS
OF THE EUROPEAN COMMUNITIES

L-2985 Luxembourg

ISBN 92-828-6432-4



9 789282 864326 >