

## **EGGE – EC’s Expert Group on Gender and Employment**

### **Indicators on Gender Equality in the European Employment Strategy**

**Jill Rubery, Colette Fagan, Damian Grimshaw, Hugo Figueiredo and Mark Smith**

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# **Indicators on Gender Equality in the European Employment Strategy**

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# **Indicators on Gender Equality in the European Employment Strategy**

## **Report by the Expert Group on Gender and Employment to the European Commission**

**Edited by**

**Jill Rubery, Colette Fagan, Damian Grimshaw, Hugo Figueiredo and  
Mark Smith**

### **Summary**

This report by the European Commission's Expert Group on Gender and Employment provides an assessment of the current indicators used to monitor gender equality in the European employment strategy and suggests both ways in which the indicators can be improved and the inclusion of new and additional indicators.

In 1997 the Council of Ministers agreed at the Luxembourg summit that member states would be required to prepare National Action Plans on Employment according to agreed guidelines. These guidelines consisted of four pillars, one of which was concerned with the promotion of the equality between women and men. The commitment to gender equality within the European employment strategy has since been strengthened by the inclusion in the 1999 guidelines of a requirement for all policies in each of the pillars to be gender mainstreamed. In line with this commitment to gender equality, the indicators agreed for monitoring the progress of the European employment strategy include a number designed specifically to monitor progress in equal opportunity. These indicators inform the process of monitoring, including the preparation of the Joint Employment Report and the formation of recommendations issued to member states by the Council of Ministers to develop policies to address various aspects of their employment strategy, including that of gender equality. It is therefore important that the appropriateness of the indicators chosen for monitoring gender equality should be examined and issues relating to their interpretation and use in monitoring and in developing recommendations subjected to close scrutiny. In addition, in the spirit of improving the monitoring of gender equality within the European employment strategy, there is a need to consider alternative or additional indicators to improve or supplement those already in use.

This report has been undertaken to fulfil these objectives. The focus is solely on the indicators relating to guidelines 17 (closing gender gaps) and guideline 18 (reconciling work and family life). The other guideline relating to gender equality- the requirement to gender mainstream all policies in guideline 16- effectively requires gender issues to be taken into account in all the indicators for the European employment strategy. The consideration of how to gender mainstream all employment policy indicators has not been part of this report but the need for a comprehensive approach is recognised by the experts group and the feasibility of full gender mainstreaming of the employment indicators is an issue which requires attention.

The political momentum for improving indicators on gender equality has been increasing over recent years. As part of the follow-up to the Platform for Action agreed in 1995 at the UN Fourth World Conference on Women, the Finnish and French Presidencies have developed a set of indicators on female participation in political decision making and on reconciliation between work and family life. The Swedish Presidency reinforced this work by emphasising the need to develop indicators and statistics, particularly on pay gaps and reconciliation. The Belgian Presidency is now working on developing indicators to measure pay differentials between women and men.

The development of the indicators for monitoring the employment strategy is the responsibility of the Employment Committee and it set up an EMCO Indicators Group to oversee this process. One of the priority areas for this group in 2001 was the improvement and development of the gender equality indicators used to monitor and assess the implementation of the fourth pillar of the Employment Guidelines. In particular priority was attached to the improvement of indicators on pay differentials to increase the accuracy and comparability of the data and the development of indicators related to care provision in the light of the Lisbon and Stockholm summits. In response to this work programme, the Expert group on Gender and Employment was asked by the Commission both to consider existing gender indicators, with a view to proposing improvements and where appropriate, to develop proposals for new indicators.

This report consists of four chapters and an appendix. The four chapters cover the main employment areas where there is a need for monitoring of gender gaps. The first looks at indicators of gender equality in employment and unemployment; the second gender segregation; the third pay and income differentials and the fourth indicators related to parenting or the reconciliation of work and family life. These chapters have been written by working groups consisting of three or four members of the group of experts together with a member of the UMIST coordinating team and supported by the coordinating team through the provision of data analyses using the European Labour Force Survey, the European Structure of Earnings Survey and the European Community Household panel data. Each chapter discusses existing indicators and proposes new or improved indicators. The appendix provides for each member state an assessment of the current level and recent trends in gender equality using the existing and the new or improved indicators, where data are available. Problems of interpretation without further contextual information are also highlighted.

## **I. Employment and unemployment indicators**

Maria Karamessini, Anna-Maija Lehto, Ingrid Mairhuber, Mark Smith and Hugo Figueiredo

Chapter I, by Karamessini et al., examines the current indicators on employment and unemployment used to monitor gender equality within the European employment strategy and proposes a number of supplementary indicators. The existing indicators on inequality in employment and unemployment are both based on absolute gender gaps in the

employment or unemployment rates of men and women. Although simple, these indicators have a number of disadvantages in the analysis of gender inequality.

### *Unemployment*

The current indicator on inequality of unemployment is the percentage point difference in the unemployment rates of men and women. Although this measure highlights the fact that female unemployment rates are higher than those for men in 12 of the 15 EU member states, there are some important disadvantages in using this indicator. Firstly, the use of the International Labour Office definition of unemployment can be regarded as biased against women as the search and availability requirements do not recognise the constraints on female labour supply. Secondly, the absolute difference in unemployment rates measures both gender inequality and the level of unemployment in a member state. A member state with a high unemployment rate may be more likely to have a large gender gap even though the relative gender inequality of unemployment may be less than in a member state where unemployment rates for women and men are lower. Reductions in the size of the absolute gender gap may also hide the fact that male unemployment rates have been falling faster than female unemployment rates. Finally, gender gaps in unemployment as a single indicator cannot capture the dynamic aspect of unemployment. Moreover, there is no recognition that the unemployment rate may fall as a result of outflows from the labour force to inactivity rather than outflows from unemployment to employment.

A number of supplementary indicators are proposed to complement the existing indicator on inequality in unemployment. Firstly, the standardised unemployment gender gap measures gender inequality in unemployment while controlling for differences in the level of unemployment between countries. Secondly, unemployment gaps by age group and educational attainment allow for the monitoring of unemployment by gender among target groups of the European Employment Strategy. Similarly, the third supplementary indicator is the gender gap in long-term unemployment, which highlights gender inequalities among the unemployed. Fourthly, the share of inactive who want to work is proposed as a measure of hidden unemployment and labour supply potential that takes into account the labour supply constraints that women face. Finally, flows into and out of unemployment by gender capture the dynamic aspect of unemployment and allow for a greater understanding of changes in the overall level of unemployment.

### *Employment*

The current indicator for inequality of employment is the percentage point gap in employment rates of men and women. Once again this measure has a number of disadvantages when examined from a gender perspective. Firstly, the employment rate based on a simple headcount of those in work disguises differences in working time between women and men. Women dominate part-time work and men are more likely to work longer hours so that comparison of the proportion of women and men in employment underestimates gender inequalities in access to employment measured in volume terms. Secondly, the absolute difference in employment rates can arise from a number of circumstances. A narrow gender gap can arise out of a medium level of employment for women and a low employment rate for men as well as high employment



rates for both women and men. A similar argument can be made for gender gaps in unemployment. Furthermore, when examining trends over time, good performance can come about through a deterioration of men's position compared to women rather than women increasing their employment rates or reducing their higher unemployment rates. Analyses of changes in the gender gaps in employment and unemployment over the period 1997-2000 show that apparently good performance can disguise a deterioration in women's position. The importance of examining changes in gender gaps in relation to the actual changes in the employment and unemployment rates of women and men is highlighted.

A number of indicators to supplement the absolute gender gap in employment rates can also be suggested. The first is a standardised employment rate gender gap to provide an indicator of the size of the gap relative to the employment level. The second is the absolute employment rate gender gap measured in full-time equivalents to indicate gender inequality in the volume of employment, taking into account gender differences in both participation in employment and working time. The third is the absolute employment gender gaps by age group and educational attainment level to assess employment performance with respect to target groups.

Finally, the chapter suggests a number of indicators in the area of quality of employment. The importance of this area has been emphasised with recent developments at the EU level, including the summits in Lisbon and Stockholm. For gender equality it would be desirable to develop indicators on quality of employment in two particular categories, working patterns and social security protection. The first group could consider differences in women's and men's involvement in atypical contracts and different hours of work. The proposed indicators include the gender gap in fixed-term contracts, the gender gap in part-time work, the gender gap in short-hours work and the gender gap in long-hours work. The second group of indicators includes the ratio of the coverage of women and men by national social security systems.

## **II. Segregation indicators**

Ruth Emerek, Hugo Figueiredo, Maria Pilar González, , Lena Gonäs and Jill Rubery

### *Introduction*

Chapter II, by Emerek et al. sets out to analyse ways of measuring gender segregation, and to consider how segregation should be monitored and assessed within the European employment strategy. This assessment includes a consideration of whether segregation should necessarily be considered a problem for gender equality. High levels of segregation are found in countries with high rates of female employment in part because some of the household work is 'subcontracted' and taken over by either private industry and services or public services, raising demand for female labour in public services and other female dominated segments. The result is that high female employment and high segregation may be positively related.

In general there are two stand points on whether segregation is really the problem for gender equality. The first sees gender segregation as indicative of real gender differences, related to discrimination towards women in the male-dominated labour market and facilitating gender wage differences. The second does not see gender segregation as the central problem, and considers that the wage gap could and should be removed by other means than by creating a gender homogeneous labour market.

The link between segregation and high female employment has not been fully appreciated in the Council recommendations to member states with respect to employment policy. High female employment countries, such as Sweden and Denmark, have been recommended to take measures to reduce segregation.

### *Measures of segregation*

Segregation is normally measured through the use of indices. The most commonly used are: the Index of dissimilarity (ID); the Moir and Selby-Smith segregation indicator (MSS) also called WE Index; the standardised or Karmel and MacLachlan Index (IP). A more recently introduced measure, which needs a different kind of calculation, is the Index of Segregation calculated according to the marginal matching method (IS or MM).

It is the IP-index that is currently used for monitoring segregation in the European employment strategy, for both occupational and sectoral segregation. It is related mathematically to the MSS-index and the ID-index. The IP-index can, as the other indices, be interpreted as the proportion of the workforce (persons in employment) which would need to change jobs in order to remove segregation. The more equal the distribution over occupations for women and men, the less the segregation. Segregation for this index will, however, *increase for an increasing female share of employment* (that is a decreasing male share) up until the female share is equal to a half. A change in the IP-index may therefore be due to a change in dissimilarity or to a change in the proportion of women in employment. Although the three indexes are related and are all dependent on the occupational structure of the economy, the results of the indices may point in different directions for the same development in women's labour market participation. None of these traditional indices provide an entirely satisfactory method of measuring gender segregation over time. This is in part because changes in the distribution of women and men across occupations are unlikely to happen in a context of either the occupational structure remaining stable or the female share of the labour force remaining constant. The fourth method, marginal matching (IS or MM) has chosen to treat the dependence of the measures on occupational structure and the female share of employment as an advantage rather than as a disadvantage.

### *Methodological issues*

There are a number of methodological issues associated with the use of segregation indices that need to be considered. First these single indices may hide changes pulling in different directions; evidence of no change in the index does not indicate little change in the pattern of segregation. Second, all the indices are dependent on the occupational classification system.

These occupational classification systems tend to mirror gender inequalities in the labour market, with traditional male occupations in manufacturing industries specified in detail but female occupations in, for example, health and care aggregated into very broad categories, in practice encompassing a lot of different occupations. For international comparisons, the problem is intensified as which tasks or jobs are included in different occupational categories differs.

Given these problems, there is a need to consider new approaches. One approach that has been used by both Finnish and Swedish researchers is to study the flows over time in the gender composition of occupations. The categorisation makes it possible to study the directions of change and the movement of occupations, for example, towards feminisation, masculinisation, neutral desegregation, resegregation and integration.

#### *Results from the analysis of the segregation indices*

Calculations have been made of the IP, ID and MSS indices for all EU countries for the period of the Luxembourg process and for different definitions of the working population. These results show little difference in the segregation ranks for the IP and the ID indices, but much larger differences with the MSS index; major differences in the level of segregation and ranking of countries occur when either the self employed or part-time employees are excluded from the calculations. There are problems in assessing the implications of changes in rankings as quite small changes in the size of an index can lead to major changes in rankings in some cases but not in others.

There was a decrease in segregation at EU level over the period 1997 to 2000 but trends at member state level went in opposite directions. Moreover, even within countries experiencing a decrease in segregation, there were different factors behind the change, and a similar mixed pattern is found among countries where segregation increased. Changes in the ID index have been decomposed into changes in the structure of occupations or changes in female shares within occupations. These two processes are operating in quite different directions across EU member states. It is not therefore possible to use changes in year to year values of segregation indices to infer that there is a trend towards either more or less equal representation of women within occupations. These changes need to be decomposed into the effects of structural change and changes in gender composition effects.

#### *Key issues in the analysis of segregation*

From this analysis of recent trends in the indices and of the impact of including or excluding some categories of employment, the following recommendations and comments can be made.

- The likelihood of a positive relationship between the level of female employment and the level of segregation should be recognised.

- The reduction of segregation should be treated as a long term process and segregation indices are not suitable for monitoring year to year progress, at least in part because the causes of changes in indices include changes in occupational structure and changes in the overall share of women in the labour force, and not just changes in gender shares within occupations.
- The indices of segregation used for monitoring gender equality under the European employment strategy should be calculated with and without part-time workers, in order to provide more information on the role of flexibility in shaping gender patterns of segregation in the labour market.
- There is a need to monitor segregation among all employees as well as for all in employment. However, the evidence of lower segregation in self employment must be treated with scepticism as within this employment form, divisions between employers and own account self employed or family workers may be more important than occupational divisions.
- Attention also needs to be paid to the impact of the sectoral structure of the economy; excluding agriculture from the calculations had a major impact, but in different directions on Portugal and Ireland. Here the effects are linked to the rather aggregated approach to occupational classification in agriculture as well as to differences in the gender division of labour between societies. Similar exercises excluding the public sector may also be informative.
- Generational changes should be investigated, paying attention to both lifecycle and inter-cohort patterns of career development. One particular aspect of generational change is the increasing educational levels of women. Educational choices remain gendered but whether one first needs to change the employment opportunities for women or first to change their educational choices is unclear.
- More adequate measures of vertical segregation are also required, with patterns of vertical segregation studied between public and private sectors.
- Gender segregation in unpaid work is greater than in paid work and should be investigated.
- Attention should be paid to whether the convergence of indices of segregation between, for example, Northern and Southern countries of Europe really indicates a convergence in patterns of segregation or whether similar levels of segregation, according to the index, can hide very different realities in the labour market. Segregation patterns by region should also be mapped.

### *Recommendations with respect to segregation indicators*

- The problems of measuring segregation using indices lie primarily in the use of a single measure for a complex process. It is therefore recommended that current indices are retained but the trends are interpreted through use of decomposition techniques and with attention to their shortcomings, particularly for comparisons between different societies.
- The indices should be interpreted as indicators of change over a relatively long time period, and should not be used as indicators of short term trends in gender equality.
- New and appropriate tools for indicating vertical segregation need to be developed.
- The structure of the labour market, numbers of hours worked and type of working contract all contribute to the explanations of the degree of gender segregation. Segregation indices should be calculated including and excluding part-time workers; and including and excluding the self-employed.
- Attention should be paid to the adequacy of the occupational classification systems.
- There needs to be more awareness that segregation levels are being compared across very different entities, as the scale of women's employment differs between countries, as well as the structure of the labour markets
- Analyses by age and educational level are needed to identify potential future trends.
- Segregation indices need to be combined with other types of indicators. An analysis of flows in the gender composition of occupations, for example between totally male dominated, medium male dominated, mixed, medium female dominated and totally female dominated occupations, could provide a useful complementary measure.

### **III. Pay and income indicators**

Ursula Barry, Francesca Bettio, Hugo Figueiredo, Damian Grimshaw, Friederike Maier and Robert Plasman

#### *Introduction*

In response to the Commission's particular need to improve indicators on pay differentials between men and women, chapter III by Barry et al. presents a critical assessment of existing indicators of gender gaps in pay and income. It includes an assessment of the strengths and weaknesses of available data-sets, a review of the many factors and characteristics underpinning gender gaps in pay and a proposal for alternative indicators. The two existing indicators are:

- Indicator EO<sub>5</sub>, the gender pay gap.  
This is defined as the ratio of women's net hourly earnings index to men's for paid employees at work 15+ hours. A breakdown by private and public sectors is included.  
Data source: European Community Household Panel (ECHP).
- Indicator EO<sub>6</sub>, the gender income gap.  
This is defined as the proportion of women earning less than 50 per cent of national median annual income, compared to the corresponding proportion of men.  
Data source: ECHP.

### *Key findings*

Current indicators for the measurement of the gender pay gap and the gender income gap need to be supplemented by additional indicators in recognition of the multiple factors that determine the relative pay and income levels of men and women across the different member states. Alongside inadequacies with the current indicators, serious weaknesses are identified in both sources of data for the estimation of pay and income – the European Community Household Panel (ECHP) and the European Structure of Earnings Survey (ESES). Use of just one source of data – the ECHP – to estimate the current indicators is based on the need to provide annual trend data for a wide group of workers; however, the serious problems identified here call into question such use of hourly pay data from the ECHP. From this analysis proposals are developed for alternative indicators for gender gaps in pay and income and the recommendation is made that both data sources should be used where possible.

### *Assessment of sources of pay and income data*

There are serious problems associated with both the ECHP and the ESES data-sets. Neither source is ideally suited for measuring the gender pay gap. The main advantage of the ECHP is that it has a full coverage of the economy, including both public and private sectors. It is also available on an annual basis, although with a long time lag between data collection and the reference year. However, it has a number of weaknesses: it only collects net earnings data, which raises problems of cross-national comparison due to differences in tax systems (however, the database has recently been reconfigured to enable access to gross earnings data for all available years); the hourly pay data must be derived from annual (or monthly) wage data; there are substantial inconsistencies in year-on-year hourly pay data within countries suggests problems with data quality; and the survey is based on a relatively small sample size. The main strengths of the ESES is its measure of gross earnings and the fact that data is collected from employers, which minimizes problems of subjectivity associated with the household survey of the ECHP. However, the ESES does not cover the public sector and it is not conducted annually. At present, the most recent data available is for 1995.

If countries are ranked by the size of the gender pay gap, then the two different data sources generate very different rankings. This suggests that recommendations on gender pay gaps that only refer to one data source may be misleading.

### *Problems with current indicators on pay and income*

In general, the selection of just one indicator for each dimension of gender inequality limits an understanding of the factors underlying the gender pay gap and the gender income gap. EO<sub>5</sub> provides a good synthetic measure and the breakdown by public and private sectors reveals important variation in women's experience of paid work. However, a single ratio of average pay levels will not reveal dynamic trends in women's pay position. Little change in the ratio could imply very limited change or alternatively, an increasing female share among both the low paid and the high paid. Also, the existing indicator takes no account of changes in the overall wage structure. For example, increases in the overall volume of low paid work may narrow the gap through a levelling down of men's average pay. The use of hourly pay data is important in allowing for the

integration of full- and part-time workers, but this does not indicate the impact of part-timers on the indicator.

EO<sub>6</sub> provides a good general measure that includes total income. However, it is difficult to interpret since it conflates the relative proportion of persons on low income (which varies significantly across member states) with a gender gap. Also, it does not distinguish between different sources of income and therefore distorts comparison between countries due to differences in composition of income earners.

#### *Factors associated with the gender pay gap*

The gender pay gap is associated with a wide range of factors. These include general labour market characteristics, such as the overall wage structure, opportunities for high paid employment and the regulation of low paid work. There is also a range of factors related to differences in men's and women's labour market participation, such as sex segregation by occupation and sector of economic activity, differences in working-time arrangements and differences in levels of education. This section reviews patterns and trends in the gender pay gap across the member states across a number of dimensions and leads to the following key findings.

- Analysis of gender pay gaps among full-time workers and part-time workers reveals different patterns among countries, with little difference in pay gaps in some countries, wider gaps among part-timers than full-timers in others and the opposite in a third group of countries.
- The pay penalty associated with women working part-time (relative to men working full-time) is relatively high in some countries and relatively low in others.
- There is a strong positive association between the overall level of wage inequality and the size of the gender pay gap, suggesting that measures of overall wage dispersion are a useful complement to measures of the gender pay gap.
- There is a major difference across countries in the share of low paid female workers (defined as the proportion of all female employees earnings less than two thirds of the median level for male full-timers). Use of industry-level ESES data reveals that some countries register no evidence of low paying sectors, while others have more than half of all female workers employed in low paying sectors. In all countries which register low paying sectors of employment, the share of women in low paying sectors is substantially less than the share of men. The importance of these differences emphasises the need for measures on low pay to be linked to better access to individual-level earnings data.
- The gender pay gap in the public sector is typically narrower than in the private sector, but there are significant differences in the relative level of women's pay in the public sector compared to all male average pay across different countries.
- The gender pay gap in services tends to be wider than in industry, in part reflecting differences in wage-setting arrangements.
- The gender pay gap tends to be wider among the highly educated working population. But there is substantial variation in the impact of education on women's relative pay. Moreover, controlling for compositional differences in

education levels among men and women and between different countries helps explain some of the difference in gender pay gaps across countries.

- The gender pay gap tends to widen with age, although the relative importance of age as an explanatory variable differs across countries.

#### *Proposals for new indicators*

Our proposals for new gender indicators on pay and income to replace the current indicators EO<sub>5</sub> and EO<sub>6</sub> are as follows:

##### The gender pay gap

- the ratio of women's annual (or monthly) net earnings to men's (ECHP) and the ratio of women's hourly gross pay to men's (ESES);
- the ratio of all female part-timers' hourly pay to male full-timers' hourly pay excluding overtime (ESES);
- the proportion of female workers earning less than 2/3 of the median annual earnings of male full-timers (ECHP) and the proportion of female workers earning less than 2/3 of the median hourly pay of male full-timers (ESES; subject to access to individual-level pay data).

##### The gender income gap

- the ratio of women's average annual total income to men's, covering all working-age population (ECHP);
- the ratio of women's average annual labour income to men's, covering all employees and self-employed (ECHP);
- the ratio of women's average annual wage income to men's, covering all employees (ECHP).

## **IV. Reconciling Work and Family Life Indicators**

Colette Fagan, Marie-Luisa Moltó, Hugo Figueiredo, Rachel Silvera and Danièle Meulders

### *Introduction*

From a gender mainstreaming perspective on employment policy it is important to monitor the impact of care responsibilities on women's employment patterns vis-à-vis those of men's; and to monitor changes in the gender division of household responsibilities.

### *Trends in Employment by Parenthood.*

The starting point for the analysis is the current set of indicators that are proposed for monitoring the reconciliation of work and family life (guideline 18) in the Commission's Employment Guidelines. These are the employment impact of parenthood, by sex (EO7);



the gender gap in the employment impact of parenthood (EO8); and the rate of involuntary part-time employment (EO9). We have also examined the results obtained when using a number of other indicators at different stages in the analysis.

### **Employment impact of parenthood**

Being a mother of a child aged 0-6 years has a negative impact on the employment rates of women in all European Union (EU) member states. When the youngest child is aged 7-14 years this also has a negative impact of the employment rates of women in all member states except Portugal. However, generally speaking, the impact is smaller than that of having a younger child. Although family sizes are generally falling to one or two children across the EU, it should still be noted that the number of children, regardless of their age, has an impact on the employment rate of mothers, particularly the presence of three or more children.

Women have lower employment rates than men even among those who do not have a dependent child (0-14 years). The size of the gender gap varies a great deal between countries. In all EU member states, and without exception, the gender gap is more pronounced among parents with a young child (0-6 years). The size of this gender gap has, however, fallen over time, mainly due to rises in female employment rates.

### **The impact of parenthood on men and women's working time**

A higher proportion of men than women work long full-time working hours, mirrored by the higher proportion of women who work short and long part-time hours. This gender differentiation in the volume of working-time is more pronounced among parents with a young child. This greater gender differentiation with parenthood is largely because mothers with a young child tend to reduce the hours they work in employment, but in many countries fatherhood increases men's propensity to work long full-time hours.

Both of these patterns have persisted between 1993 and 2000, but there has been some change in the magnitude of the differences. The gender difference has become more pronounced for people without children in all countries except Ireland. The trend is more varied between countries for parents with a young child.

The Netherlands, UK and Germany are the countries where the differential rates of involvement in part-time work between non-mothers and mothers are particularly pronounced. The differential in working-time distributions between women who do and do not have a young child has become less pronounced over the period from 1993 to 2000.

Male full-time equivalent (FTE) employment rates are 90% or more regardless of their parental responsibilities and only drop below 85% in a few countries. The FTE rates are lower for women, reflecting their greater involvement in part-time work. The FTE rates for women generally increased between 1993 and 1999, even in countries with high rates of part-time work such as the Netherlands and the UK. The absolute gender gap in the FTE employment rates is highest for parents with a young child (0-6 years old), particularly when compared with the gender gap for the employed without a child. The smallest gaps among parents with a young child are found in Portugal, Austria, Belgium and France. The FTE employment impact of fatherhood is positive while the impact of motherhood is negative in all EU countries. The impact is also much higher, in absolute value, for women than it is for men.

### **The employment impact of motherhood by education level**

Women's employment rates rise with education, regardless of whether or not they have young children, but at each education level, mothers have lower employment rates. It is particularly at the lower education level that the employment rates of mothers with a very young child (0-2 years) are even lower than that for mothers with a slightly older child. The impact of motherhood on employment is much less pronounced at the higher education level across all countries. In fact, mothers with the highest education levels have higher employment rates than less educated women without young children in most countries.

### **The employment impact of motherhood for lone mothers and mothers in couple households**

There are some important differences between countries in the impact of lone parenthood on employment. In three countries (Austria, Spain and Greece) lone mothers have higher employment rates than mothers in couple households. The situation is reversed in the other countries, with a particularly large discrepancy found in Italy, the Netherlands and the UK.

### **Rates of involuntary part-time work**

The proportion of part-timers that are involuntarily working part-time is much higher in some member states than in others. Involuntary part-time work was lowest in the Netherlands (4.3%) but applied to a quarter or more of all part-timers in Spain, France, Sweden, Italy, Finland and Greece. Men have lower rates of part-time work but higher rates of involuntary part-time work. Rates of 'involuntary' and 'voluntary' part-time work can only be interpreted with information about the level of collective care services and of social

norms concerning maternal employment, and with references to the overall rate of part-time work.

### *Indicators for monitoring the relationship between family life and employment*

The French Presidency in 2000 undertook a review of the indicators required to monitor the relationship between, and reconciliation of, employment and family life. This review identified five resource issues of key relevance for monitoring the relationship between family life and employment:

- Available time – leave arrangements
- Collective childcare provision
- Collective care for dependent elder people
- Opening hours of services
- The gender division of domestic work

### **Available time - leave arrangements**

There is still national diversity in the length and payment rates for maternity, paternity and parental leave. There is a lack of harmonised data on parental leave take-up patterns, but mothers take most of the leave. This differential take-up can reinforce gender inequalities in the home and in employment.

### **The development of collective care provision for children and dependent older people**

There is a lack of harmonised data concerning collective childcare provision across the member states. There have been significant increases in the provision of childcare, but almost entirely in relation to children aged 3 to 6 years old. Only four countries - Sweden, Finland, Denmark and France - have childcare services that cover more than a third of small children.

Comparable data on services for dependent elder people (defined as people over 65 years old, who are not able to live independently) in the member states are extremely scarce. The share of dependent people in institutions is more than 10% in only two countries, whilst help at home varies between 8% and 15% in only 4 countries (Sweden, Finland, Denmark and the United Kingdom). However, this indicator does not tell us the extent of

home care service provided to those in receipt of home care, or the amount of unmet need for home care services.

### **The compatibility of service opening hours**

The promotion of the reconciliation of employment and family life is also enhanced by the compatibility of the opening hours of public services – including care services and school hours - and private services (particularly shop opening hours), with working hours. There is a lack of readily available and harmonised data on these issues.

### **The gender division of domestic work**

All countries score poorly on the male-female gap in unpaid domestic time spent looking after children and other persons. On average in the EU women spend about four times as long as men on caring tasks. The division is less extreme only in Denmark and Sweden, while it is most pronounced in Portugal, Greece and Austria.

## *Evaluation and recommendations concerning the current indicators relating to Guideline 18: Reconciling Employment and Family Life*

### **Limitations of the existing indicators**

The current indicators proposed by the expert group to the Employment Committee for monitoring guideline 18: Reconciling work and family life, provide useful basic information. However, the analysis in this chapter has shown that they neglect a number of important issues, summarized as follows.

E07: Employment impact of parenthood by gender

- 1) The employment impact of motherhood is sensitive to the age threshold used to define 'young child'
- 2) The employment impact of motherhood varies between women according to education level
- 3) In some countries, employment patterns of mothers may be sensitive to the number of children, irrespective of the age of the youngest child.
- 4) The impact of motherhood on employment varies between lone mothers and mothers in couple households

5) The existing employment rate indicator does not monitor the volume of employment.

E08: Gender gap in the employment impact on parenthood

6) The employment impact of parenthood is mainly an impact on mothers, with a small positive impact on fathers, and when is expressed as a gender ratio it is not easy to interpret.

E09: Involuntary part-time employment

7) The rate of involuntary part-time work is not easy to interpret.

Issues that are entirely neglected by indicators E07-E09

8) Current indicators only look at the employment effects for people with children and neglect the impact of employment opportunities, working-time arrangements and care services on fertility decisions.

9) There are no indicators on access to and the take-up of leave

10) There are no indicators on collective care facilities (young children and dependent elder people)

11) Indicators are also needed to monitor the gender gap in unpaid time spent on caring for children and other adults and other basic domestic work

### **Recommendations for improving the indicators.**

Our first recommendation is that full-time equivalent employment rates are used, supplemented with information on the distribution of working time between short part-time, long part-time, medium full-time and long full-time hours.

Secondly, given that most of the employment impact of parenthood is actually upon mothers, the employment impact of motherhood should be explored in more detail than that of fatherhood and EO8 as its currently constituted should be dropped in favour of a focus on EO7.

Thirdly, indicators of collective care services and the gender distribution of unpaid domestic work must be introduced.

Fourthly, the indicator of involuntary part-time work be substantially revised, or dropped entirely.

Finally, we agree with the EC proposal to establish a hierarchy of 'key' and 'contextual' indicators.

Consequently, for monitoring the trends in employment by parenthood/motherhood, we recommend the following:

#### Key indicators

- The employment impact of parenthood in FTE employment rates for women and men (child aged 0-6 years/no child under 15 years)
- The employment impact of motherhood (youngest child aged 0-6 years/no child under 15 years)
- The take-up of parental leave by men and women
- The level of collective services provided for young children
- The level of collective services provided for dependent elders

#### Contextual indicators

- The employment impact of motherhood by education level (youngest child aged 0-2 years/youngest child aged 3-6 years/no dependent child under 15 years)
- The employment impact of motherhood by number of children
- The employment impact of motherhood for lone mothers compared to mothers in couple households
- The impact of gender on the distribution of working time (short part-time/long part-time/medium full-time/long full-time)
- The impact of motherhood on the distribution of working time (short part-time/long part-time/medium full-time/long full-time)
- Absolute gender gaps in employment rates, by the age of the youngest child (no dependent children, youngest child aged 0-6 years/youngest child aged 7-14 years)
- The gender gap in time spent on caring and other unpaid domestic work

# **Indicators on Gender Equality in the European Employment Strategy**

## **Introduction**

This report by the European Commission's Expert Group on Gender and Employment provides an assessment of the current indicators used to monitor gender equality in the European employment strategy and suggests both ways in which the indicators can be improved and the inclusion of new and additional indicators.

In 1997 the Council of Ministers agreed at the Luxembourg summit that member states would be required to prepare National Action Plans on Employment according to agreed guidelines. These guidelines consisted of four pillars, one of which was concerned with the promotion of the equality between women and men. The commitment to gender equality within the European employment strategy has since been strengthened by the inclusion in the 1999 guidelines of a requirement for all policies in each of the pillars to be gender mainstreamed. In line with this commitment to gender equality, the indicators agreed for monitoring the progress of the European employment strategy include a number designed specifically to monitor progress in equal opportunity. These indicators inform the process of monitoring, including the preparation of the Joint Employment Report and the formation of recommendations issued to member states by the Council of Ministers to develop policies to address various aspects of their employment strategy, including that of gender equality. It is therefore important that the appropriateness of the indicators chosen for monitoring gender equality should be examined and issues relating to their interpretation and use in monitoring and in developing recommendations subjected to close scrutiny. In addition, in the spirit of improving the monitoring of gender equality within the European employment strategy, there is a need to consider alternative or additional indicators to improve or supplement those already in use. This report has been undertaken to fulfil these objectives, the focus is solely on the indicators relating to guidelines 17 (closing gender gaps) and guideline 18 (reconciling work and family life). The other guideline relating to gender equality- the requirement to gender mainstream all policies in guideline 16- effectively requires

gender issues to be taken into account in all the indicators for the European employment strategy. The consideration of how to gender mainstream all employment policy indicators has not been part of this report but the need for a comprehensive approach is recognised by the group of experts on gender and employment and the feasibility of full gender mainstreaming of the employment indicators is an issue which requires attention.

The political momentum for improving indicators on gender equality has been increasing over recent years. As part of the follow-up to the Platform for Action agreed in 1995 at the UN Fourth World Conference on Women, the Finnish and French Presidencies have developed a set of indicators on female participation in political decision making and on reconciliation between work and family life. The Swedish Presidency reinforced this work by emphasising the need to develop indicators and statistics, particularly on pay gaps and reconciliation. The Belgian Presidency is now working on developing indicators to measure pay differentials between women and men.

The EMCO Indicators Group, responsible for overseeing the development of the indicators for monitoring the employment strategy, called in autumn 2000 for a revision of the set of indicators currently in use. In its work programme for 2001, one of the priority areas identified was the improvement and development of the gender equality indicators used to monitor and assess the implementation of the fourth pillar of the Employment Guidelines. In particular, priority was attached to the improvement of indicators on pay differentials to increase the accuracy and comparability of the data and the development of indicators related to care provision in the light of the Lisbon and Stockholm summits. Expanding gender breakdowns to other indicators as well as improving surveys to include the gender dimension were further priorities. The EMCO Indicators Group was to consider not only existing indicators that still required further development but also to start work in areas for which no suitable indicator had been developed up until now and in response to the need to monitor new priorities. In response to the work programme of the EMCO group, the Expert Group on Gender and Employment was asked by the Commission both to consider existing gender indicators, with a view to proposing improvements and, where appropriate, to develop proposals for new indicators.

This report consists of four chapters and an appendix. The four chapters cover the main employment areas where there is a need for monitoring of gender gaps. The first looks at indicators of gender equality in employment and unemployment; the second gender segregation;



the third pay and income differentials and the fourth indicators related to parenting or the reconciliation of work and family life. These chapters have been written by working groups consisting of three or four members of the group of experts together with a member of the UMIST coordinating team and supported by the coordinating team through the provision of data analyses using the European Labour Force Survey, the European Structure of Earnings Survey and the European Community Household Panel data. Each chapter discusses existing indicators and proposes new or improved indicators. The appendix provides for each member state an assessment of the current level and recent trends in gender equality using the existing and the new or improved indicators, where data are available. Problems of interpretation without further contextual information are also highlighted.

The expert group was fortunate to have two members who had been involved as consultants in the work of the French and the Belgian presidencies in developing new indicators: Rachel Silvera with respect to the indicators relating to reconciliation under the French presidency and Robert Plasman with respect to the Belgian presidency work on gender pay differentials. In addition the working groups were able to draw on the previous reports of the group of experts which had identified some of the key problems in the use of conventional statistics for measuring gender equality. Some of the most important issues include the need:

- to consider the distribution of the volume of work as well as the share of the working age population in employment;
- to recognise that much of the potential female labour reserve is found among the inactive and not only the unemployed population;
- to identify the major differences by gender in labour market flows;
- to understand the problems of using indices of segregation for measuring change in segregation in labour market as these may hide changes pulling in different directions, perhaps towards more horizontal and less vertical segregation;
- to identify patterns of change in segregation both including and excluding part-timers;
- to recognise the importance of the structure of wages and the structure of jobs in explaining differences in the gender wage gaps, both overall and for different groups;
- to look at age and educational breakdowns to understand trends over time and differences between countries in gender gaps;
- for parental employment indicators to be calculated on a full-time equivalent basis;
- for new statistics to be developed on care provision;

- to recognise that it is problematic to treat the extent of voluntary part-time work as independent of the care infrastructure or the working hours culture in full-time jobs.

These issues all inform the discussion and proposals with respect to gender equality indicators and highlight the need for those monitoring gender equality in the European employment strategy to develop expertise in gender issues and to use a wide range of contextual indicators to understand the processes of change over time and the factors underpinning differences between member states.

# I. INDICATORS OF GENDER EQUALITY IN EMPLOYMENT AND UNEMPLOYMENT

Maria Karamessini, Anna-Maija Lehto, Ingrid Mairhuber, Mark Smith and Hugo Figueiredo

## I.1. Introduction

The purpose of this chapter is to evaluate existing employment and unemployment indicators used to monitor the progress of the European Employment Strategy with respect to gender equality and to propose improvements or supplements.

In order to evaluate the advantages and disadvantages of current indicators of gender inequality in employment and unemployment, it is important to consider the concept of an indicator. Although indicators can be defined in different ways, the phenomena that they attempt to measure are essentially more complicated and comprehensive than indicators themselves. In principle, indicators should describe a particular phenomenon and illustrate the relative performance of a member state in relation to what is desired. Indicators implicitly, and sometimes explicitly, define what “good performance” for each phenomenon is. An assessment of current indicators of gender gaps in employment and unemployment requires the gender proofing of the underlying definitions and the clarification of the notion of equality with reference to the assessment and measurement of good performance.

This chapter focuses on the indicators relating to employment and unemployment already used under guideline 17 of the Employment Policy Guidelines. We also take advantage of the pending inclusion of job quality as a general objective in the Guidelines for 2002 and of the European Commission’s proposal to the Laeken Council in December 2001 for employment quality indicators. We argue that breaking employment and unemployment indicators down by gender is necessary but not sufficient and recommend the measuring and monitoring of gender gaps in quality of employment.

This chapter is divided in three sections. The first section evaluates indicators of gender inequality in unemployment and proposes supplementary indicators while the second section repeats this process for indicators on employment. The last section considers gender gaps in the quality of employment.

## **I.2. Indicators of gender gaps in unemployment**

The current indicator used in the European Employment Strategy to measure progress in tackling gender gaps in unemployment is the *absolute unemployment gap*. This is defined as the difference in the unemployment rates of women and men in percentage points. This constitutes the first indicator of the equal opportunities pillar of the Employment Policy Guidelines (EO<sub>1</sub>).

### **I.2.1 Advantages and disadvantages of the absolute unemployment gap**

The main advantage of the absolute difference in unemployment rates as an indicator for monitoring gender gaps in unemployment is its concise and straightforward character. However, the indicator also has a number of disadvantages. These include: the gender bias of actual measurement of unemployment; the inability of unemployment rates to capture the dynamic aspect of unemployment; the absence of gender equality monitoring among target groups of the European Employment Strategy; and the misleading nature of the absolute unemployment gap.

- The International Labour Office (ILO) definition of unemployment is biased against women in a number of ways. Women job seekers are more likely than men to fall outside the ILO definition of unemployment. Conditions on availability to work within two weeks and on active job search ignore constraints of care and discouragement due to scarcity of employment opportunities or lack of informational networks. Women face availability and search constraints as a result of their greater care responsibilities and may need more than two weeks to make themselves available for work. The great majority of discouraged workers who do not actively seek work are women (Eurostat 1999; table 65). The current ILO definition of unemployment does not include the share of inactive people who want to work and there are more women than men in this group (Rubery et al. 1998;74-75). Consequently, *real gender gaps* in unemployment are distorted and the *labour supply potential* to meet Lisbon targets is underestimated. The share of the inactive moving into employment every year captures only the hidden unemployed that are actually mobilised through job creation (labour demand). Inclusion of the inactive willing to work in the measure of unemployment would better reflect the real size of the labour reserve. Given the gender bias in the ILO measurement of unemployment, a male unemployment rate higher than the female rate, as observed in some EU Member States, does not necessarily imply that there are fewer women than men who want to work.

- Unemployment is a dynamic phenomenon and is determined by constant *flows from/to employment and inactivity*. By definition, unemployment rates measure stocks at a given moment of time and not flows during a given period of time. However, gender differences regarding flows are very important for understanding the different ways in which women and men experience unemployment and the type of employment policy needed to cope with these gender differences. For example, from a policy perspective, it is important to know if the higher female unemployment rates that prevail in 12 out of the 15 EU Member States are due to either the *higher number of women entering unemployment*<sup>1</sup> or the greater *time spent, on average, in unemployment*.<sup>2</sup> The measuring of gender gaps in inflows to and outflows from unemployment could be highly instructive.
- The incidence of unemployment among young people, the least educated and the level of long-term unemployment are central preoccupations of the European Employment Strategy. Although the youth and long term unemployment rates by gender appear in the basic performance indicators of the Strategy, the gender gaps in youth and long-term unemployment are not monitored under guideline 17. The same is true for older people – another possible target group – who experience lower rates of unemployment but higher incidences of long-term unemployment.
- The absolute unemployment gap gives no indication of the size of gender gaps in relation to the overall level of unemployment and can be misleading when used for *international comparisons* of gender equality in unemployment.

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<sup>1</sup> This implies a higher risk for women of losing employment and/or greater difficulties met in finding employment from inactivity.

<sup>2</sup> This means that women face greater difficulties in finding employment or that the probability of exiting successfully from unemployment is lower with respect to men.

**Table I.1: Unemployment rates and gender gaps**

	1997				1998				1999				2000			
	Female	Male	Absolute Gap	Relative Gap	Female	Male	Absolute Gap	Relative Gap	Female	Male	Absolute Gap	Relative Gap	Female	Male	Absolute Gap	Relative Gap
Belgium	12.1	7.4	4.7	1.6	11.8	7.8	4.0	1.5	10.5	7.5	3.0	1.4	8.8	5.7	3.1	1.5
Denmark	6.8	4.6	2.2	1.5	6.6	4.1	2.5	1.6	6.0	4.5	1.5	1.3	5.3	4.2	1.1	1.3
Germany	10.7	9.2	1.5	1.2	10.0	8.8	1.2	1.1	9.1	8.2	0.9	1.1	8.5	7.7	0.8	1.1
Greece	15.2	6.4	8.8	2.4	16.7	7.1	9.6	2.4	17.6	7.5	10.1	2.3	16.7	7.3	9.4	2.3
Spain	28.3	16.0	12.3	1.8	26.6	13.8	12.8	1.9	23.0	11.2	11.8	2.1	20.6	9.8	10.8	2.1
France	14.4	10.6	3.8	1.4	13.9	10.0	3.9	1.4	13.3	9.5	3.8	1.4	11.5	7.8	3.7	1.5
Ireland	9.9	9.9	0.0	1.0	7.3	7.7	-0.4	0.9	5.5	5.7	-0.2	1.0	4.2	4.3	-0.1	1.0
Italy	16.3	9.3	7.0	1.8	16.3	9.1	7.2	1.8	15.6	8.7	6.9	1.8	14.4	8.0	6.4	1.8
Luxembourg	4.0	2.0	2.0	2.0	4.0	1.9	2.1	2.1	3.3	1.7	1.6	1.9	3.0	1.6	1.4	1.9
Netherlands	7.0	3.9	3.1	1.8	5.3	3.1	2.2	1.7	4.7	2.3	2.4	2.0	3.9	1.9	2.0	2.1
Austria	5.4	3.7	1.7	1.5	5.4	3.8	1.6	1.4	4.7	3.4	1.3	1.4	4.4	3.2	1.2	1.4
Portugal	7.7	6.1	1.6	1.3	6.4	4.1	2.3	1.6	5.2	3.9	1.3	1.3	5.2	3.4	1.8	1.5
Finland	13.0	12.3	0.7	1.1	12.0	10.9	1.1	1.1	10.7	9.8	0.9	1.1	10.6	9.1	1.5	1.2
Sweden	9.5	10.2	-0.7	0.9	8.1	8.6	-0.5	0.9	7.1	7.2	-0.1	1.0	5.8	6.0	-0.2	1.0
UK	6.0	7.9	-1.9	0.8	5.5	7.0	-1.5	0.8	5.3	6.7	-1.4	0.8	4.9	6.0	-1.1	0.8
EU – 15	12.3	9.3	3.0	1.3	11.7	8.6	3.1	1.4	10.9	7.9	3.0	1.4	9.9	7.0	2.9	1.4

Note: Ab Gap = absolute gap (difference between the female and the male unemployment rate)

Note: Rel Gap = relative gap (ratio of the female to the male unemployment rate)

Source: European Labour Force Survey.

## **I.2.2 Analysis of trends and problems of interpretation**

It has been argued that the absolute unemployment gap is easier to understand and interpret than the relative unemployment gap (European Commission 2000a). We do not share this point of view. Relative gaps are in any case already used for the equal pay indicators, EO<sub>5</sub> and EO<sub>6</sub>. Relative gaps in unemployment rates, defined as the ratio of the female to the male unemployment rate, are as easy to understand and interpret as absolute ones. The respective merits and weaknesses of these indicators lie elsewhere.

The absolute gap not only reflects gender inequality in unemployment but also the overall level of unemployment. The merit of the absolute gap is that it represents a straightforward target for employment policy whereas the relative gap is a ratio and needs translation into absolute terms to become a realisable policy target. For example, the relative gender gap for 2000 in both Spain and the Netherlands was 2.1 (see table I.1). This means that the female unemployment rate was 2.1 times higher than the male rate. However, the absolute unemployment rate gap in the Netherlands was 2.0 percentage points compared to 10.8 in Spain.

The relative gap neutralises the impact of the level of unemployment and reflects only gender inequality and is a better indicator than the absolute gap for interpreting trends of gender inequality in unemployment. For example, in Italy the absolute gender gap fell by 0.6 percentage points between 1997 and 2000 (see table I.1). Yet, the decline in the female unemployment rate was strictly proportional to that of the male rate and the female unemployment rate in 2000 remained 1.8 times the male rate. Gender inequality remained unchanged in spite of a decrease of the absolute gender gap. Another example is Spain, where the absolute unemployment gap fell by 1.5 percentage points between 1997 and 2000 but the male unemployment rate fell more rapidly than the female rate and the relative gap rose from 1.8 to 2.1. This means that gender inequality actually rose between 1997 and 2000, in spite of the reduction of the absolute gender gap. These examples illustrate how the absolute unemployment gap can lead to a misinterpretation in trends of gender inequality in unemployment, whereas the relative gap does not.

Evaluation of trends in inequality of unemployment not only depends on the use of the absolute or the relative unemployment gap as an indicator but also on the notion of equality. It is possible for the absolute unemployment gap to decrease while unemployment rates of men and women rise at different rates. Similarly the male unemployment rate may increase while the female rate remains stable. Is this a desirable way to attain gender equality? Furthermore, even where the reduction of the absolute unemployment gap is mainly or exclusively due to the decline of the female unemployment rate, this could be the outcome of an increased flow of unemployed women into inactivity and not into employment. Again, is this a desirable way to attain gender equality?

These cases highlight that by going beyond the consideration of equality of outcomes and critically assessing the way equality is reached, we demonstrate that a decline in absolute or relative unemployment gaps does not always indicate good performance. It is therefore necessary to analyse trends in the gender gap in unemployment, by jointly examining the separate movements of the female and male unemployment rates and the origin of any changes.

In our view, a falling absolute or relative gap in unemployment rates of women and men should be interpreted as good performance only when it has been generated mainly by the reduction of the female unemployment rate. Furthermore, this reduction should be the outcome of increased flows of unemployed women into employment and/or reduced flows of employed women into unemployment. This highlights the need to decompose changes in gender gaps into separate changes for men and for women and consider indicators based on flows between activity statuses.

The absolute gender gap in unemployment rates may also hide further inequalities in unemployment by education, age and duration. The gender gap in unemployment is more pronounced among the least educated women and men with a larger gap in nine of the twelve countries where women have a higher overall unemployment rate (table I.2). In the countries where men have higher unemployment rates this pattern holds for all educational groups and the gap tends to increase and in Austria and Germany lower educated men also have higher unemployment rates than women with the same level of education. The gender gap in unemployment also varies across the age groups with the gap generally higher among young people and lower or even reversed among the 55-64 age group (table I.3). For women in the



25-54 age group, the gender gaps tend to be higher than in the 55-64 age group and in two of the three countries where men's unemployment exceeds women's – Sweden and the UK – the gender gap narrows.

Transitions into and out of unemployment will also determine the proportion of women and men out of work for long periods. A higher proportion of the female than male labour force is classified as long term unemployed (table I.4). This gender gap is more than six percentage points in Spain and Greece and 3.9 percentage points in Italy. In most countries the gender gap in long-term unemployment rates has been falling and in Austria the gap was slightly reversed in 2000. In the three countries where men's unemployment exceeds women's, a greater proportion of men have also been out of work for more than twelve months, this also holds for Germany and Finland as well as Austria.

**Table I.2: Unemployment rates by educational attainment and gender gaps, 2000.**

	female				male				gender Gap			
	low	medium	high	total	low	medium	high	Total	low	medium	High	Total
Belgium	14.3%	9.1%	3.1%	8.3%	8.2%	5.0%	2.2%	5.3%	6.2%	4.2%	0.9%	3.0%
Denmark	7.7%	5.0%	2.6%	5.0%	5.0%	3.8%	2.6%	3.8%	2.7%	1.2%	-0.1%	1.1%
Germany	11.5%	8.3%	5.2%	8.3%	13.8%	7.6%	3.8%	7.6%	-2.3%	0.6%	1.4%	0.7%
Greece	14.4%	21.9%	11.6%	16.9%	6.6%	9.8%	4.8%	7.5%	7.8%	12.1%	6.8%	9.4%
Spain	23.4%	21.2%	15.6%	20.5%	11.0%	9.0%	7.2%	9.7%	12.5%	12.3%	8.4%	10.8%
France	17.7%	11.9%	6.2%	12.3%	13.5%	7.0%	5.0%	8.6%	4.2%	4.9%	1.2%	3.6%
Ireland (99)	5.9%	7.3%	4.7%	6.8%	15.6%	7.7%	6.0%	7.6%	-9.7%	-0.4%	-1.3%	-0.8%
Italy	17.6%	14.5%	8.6%	14.9%	9.7%	7.7%	4.1%	8.3%	8.0%	6.8%	4.5%	6.5%
Luxembourg	4.0%	3.1%	2.0%	3.2%	3.4%	1.2%	0.9%	1.8%	0.5%	2.0%	1.2%	1.4%
Netherlands	5.7%	2.6%	2.1%	3.4%	3.4%	1.6%	1.4%	2.1%	2.3%	1.0%	0.7%	1.3%
Austria	7.3%	4.0%	2.5%	4.6%	9.2%	4.3%	2.1%	4.8%	-1.8%	-0.3%	0.4%	-0.2%
Portugal	5.5%	6.7%	2.8%	5.3%	3.4%	2.9%	2.5%	3.3%	2.0%	3.9%	0.3%	2.0%
Finland	21.4%	12.1%	5.8%	12.0%	17.5%	10.1%	4.2%	10.4%	3.9%	2.0%	1.6%	1.6%
Sweden	8.4%	5.5%	2.3%	5.0%	8.5%	5.9%	3.8%	5.9%	-0.1%	-0.3%	-1.6%	-0.9%
UK	7.7%	5.3%	2.2%	4.8%	13.7%	6.1%	2.7%	6.1%	-6.1%	-0.8%	-0.5%	-1.3%
EU15	14.6%	9.4%	6.0%	10.0%	10.4%	6.8%	3.9%	7.3%	4.3%	2.5%	2.1%	2.8%

Note: Ireland = 1999, EU includes Ireland 1999

Source: ELFS 2000

**Table I.3: Unemployment rates by age and gender gaps, 2000.**

	female				male				gender		gap	
	15-24	25-54	55-64	15-64	15-24	25-54	55-64	15-64	15-24	25-54	55-64	15-64
Belgium	18.2%	7.4%	2.9%	8.3%	12.9%	4.6%	3.4%	5.3%	5.3%	2.8%	-0.6%	3.0%
Denmark	7.0%	4.7%	4.2%	5.0%	6.5%	3.5%	3.9%	4.0%	0.4%	1.1%	0.2%	1.0%
Germany	7.4%	7.6%	14.2%	8.3%	9.5%	6.7%	11.8%	7.7%	-2.0%	0.9%	2.3%	0.6%
Greece	37.7%	14.7%	4.4%	16.9%	22.1%	6.1%	3.5%	7.5%	15.6%	8.6%	0.9%	9.5%
Spain	32.4%	18.8%	11.5%	20.5%	19.7%	8.0%	9.4%	9.7%	12.7%	10.8%	2.1%	10.8%
France	22.6%	11.4%	7.4%	12.3%	19.0%	7.5%	7.3%	8.6%	3.6%	3.9%	0.1%	3.6%
Ireland	7.0%	3.6%	2.5%	4.2%	6.1%	4.3%	2.6%	4.4%	0.8%	-0.7%	-0.1%	-0.2%
Italy	35.3%	12.5%	4.9%	14.9%	28.4%	6.4%	4.6%	8.4%	6.9%	6.1%	0.3%	6.5%
Luxembourg	6.8%	2.9%	0.0%	3.1%	5.4%	1.4%	2.4%	1.8%	1.4%	1.5%	-2.4%	1.3%
Netherlands	5.9%	3.0%	2.2%	3.5%	4.7%	1.7%	1.7%	2.2%	1.2%	1.3%	0.4%	1.3%
Austria	5.6%	4.4%	5.9%	4.6%	6.9%	4.2%	7.2%	4.8%	-1.3%	0.2%	-1.3%	-0.2%
Portugal	12.0%	4.1%	2.6%	5.1%	5.5%	2.7%	3.8%	3.2%	6.5%	1.4%	-1.1%	1.8%
Finland	29.3%	8.8%	8.8%	12.0%	27.5%	7.1%	9.9%	10.4%	1.8%	1.7%	-1.2%	1.6%
Sweden	8.1%	4.8%	4.6%	5.1%	10.8%	5.1%	7.1%	6.0%	-2.7%	-0.4%	-2.5%	-0.9%
UK	10.4%	4.0%	2.9%	4.9%	13.5%	4.8%	5.7%	6.2%	-3.1%	-0.8%	-2.8%	-1.3%
EU	17.3%	8.9%	7.8%	9.9%	15.0%	6.0%	7.6%	7.3%	2.2%	2.9%	0.3%	2.6%

Source: ELFS 2000

**Table I.4: Long term unemployment rates and the gender gap in long term unemployment, 2000.**

	Female					Male					gender gap				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
Austria	1.5	1.5	1.8	1.7	1.3	1.2	1.4	1.5	1.3	1.4	0.3	0.1	0.3	0.4	-0.1
Belgium	7.8	7.1	7.4	6.2	4.7	4.4	4.2	4.5	4.5	3.0	3.4	2.9	2.9	1.7	1.7
Germany	4.9	5.6	5.7	4.9	4.3	5.6	6.4	5.8	5.3	5.1	-0.7	-0.8	-0.1	-0.4	-0.8
Denmark	2.1	1.8	1.8	1.2	1.0	1.6	1.2	0.9	0.9	0.8	0.5	0.6	0.9	0.3	0.2
Spain	17.5	16.1	14.5	11.6	9.5	8.1	7.5	6.1	4.4	3.5	9.4	8.6	8.4	7.2	6.0
Finland	4.4	3.8	3.5	2.7	2.7	5.6	4.2	4.2	3.1	2.9	-1.2	-0.4	-0.7	-0.4	-0.2
France	5.8	5.9	5.9	5.5	5.0	3.8	4.2	4.3	3.9	3.3	2.0	1.7	1.6	1.6	1.7
Greece	9.6	9.2	10.1	10.7	10.2	2.8	2.8	3.1	3.7	3.6	6.8	6.4	7.0	7.0	6.6
Ireland	6	4.6	3.1	2.1	1.6	7.5	6.2	4.6	3.2	2.3	-1.5	-1.6	-1.5	-1.1	-0.7
Italy	11.0	11.0	9.6	9.8	9.0	6.1	6.4	5.6	5.4	5.1	4.9	4.6	4.0	4.4	3.9
Luxembourg	1.2	1.3	1.1	0.9	0.6	0.7	0.6	0.7	0.7	0.5	0.5	0.7	0.4	0.2	0.1
Netherlands	3.5	3.2	2.4	1.7	1.0	2.6	1.9	1.5	1.1	0.6	0.9	1.3	0.9	0.6	0.4
Portugal	4.3	4.1	2.6	2.2	1.9	3.1	3.0	1.6	1.6	1.4	1.2	1.1	1.0	0.6	0.5
Sweden	2.2	3.1	2.7	1.6	1.4	3.5	3.8	3.9	2.7	1.9	-1.3	-0.7	-1.2	-1.1	-0.5
UK	1.8	1.6	1.3	1.1	0.9	4.4	3.6	2.6	2.3	2.1	-2.6	-2.0	-1.3	-1.2	-1.2
EU15	6.3	6.3	5.7	5	4.5	4.5	4.4	3.9	3.5	3.1	1.8	1.9	1.8	1.5	1.4

Notes: Irish data to be used with caution.

Source: European Labour Force Survey (DGV) - (employment in Europe 2001 - Eurostat calculations)

### **I.2.3 Recommendations with respect to unemployment indicators of gender equality**

We do not propose the replacement of the absolute unemployment gap indicator by the relative unemployment gap, but we recommend that changes in the absolute gap are examined alongside other indicators for a better interpretation of trends in gender inequality of unemployment. Our proposals for supplementary indicators are the following:

- Introduce the standardised unemployment gender gap as an indicator of gender inequality in unemployment for international comparisons (see table I.5). We define this gap as the difference in unemployment rates of women and men divided by the male unemployment rate and we propose to use as data source the ELFS.
- Include the unemployment gaps by age group (table I.3) and education (table I.2) to monitor policy targeting. The same data source as that used to estimate overall unemployment gaps can be used, namely the ELFS.
- Include the long-term unemployment gender gaps (table I.4). Again the ELFS data source can be used.
- Include the share of inactive who want to work by gender as an indicator of hidden unemployment. The European Labour Force Survey (ELFS) can be used as a data source (see table I.5). The unemployment rate and the share of inactive who want to work can be also used as an indicator of the labour supply potential to meet Lisbon targets.
- Estimate flows into and out of unemployment by gender, by using data on the ‘activity status last year’ of currently employed, unemployed and inactive. Appendix tables I.1a and I.1b use ELFS data to estimate the flows between unemployment and employment and inactivity but the European Community Household Panel (ECHP) could also be used until its replacement in 2003 if up to date data were available. The flows estimated in appendix tables I.1a and I.1b are:
  - *From unemployment to employment* = share of last year’s unemployed who were employed in the reference week
  - *From unemployment to inactivity* = share of last year’s unemployed who were inactive in the reference week

- Examine changes in the absolute gender gap in relation to changes in unemployment rates for women and men individually (see Appendix table I.2), so that good performance is correctly evaluated.

We have undertaken the exercise of co-examining changes in the gender gaps decomposed by gender and flows between 1997 and 1998 (see Appendix table I.3). This analysis highlights the shortcomings of only considering the absolute in unemployment rate gap. For example, in Belgium, the absolute unemployment rate gender gap fell by 0.7 percentage points between 1997 and 1998 and this was the result of both a fall in the female unemployment rate of 0.3 percentage points and a rise of the male rate of 0.4 percentage points. Moreover, the fall of the female unemployment rate was exclusively due to increased outflows from unemployment to inactivity. By taking the absolute unemployment gap as the sole indicator of performance, Belgium had the second best performance in the EU with respect to tackling of gender inequality in unemployment. However, the good performance is due more to the deterioration of men's position than to the improvement of women's position in unemployment and the reduction of the female unemployment rate was the result of discouragement of the unemployed and not improved employment opportunities.

**Table I.5: Absolute and standardised unemployment gender gaps, 2000**

	Absolute gap	Ranking	Standardised gap	Ranking
Belgium	3.1	5	0.54	6
Denmark	1.1	11	0.26	10
Germany	0.8	12	0.10	12
Greece	9.4	2	1.29	1
Spain	10.8	1	1.10	2
France	3.7	4	0.47	8
Ireland	-0.1	13	-0.02	13
Italy	6.4	3	0.80	5
Luxembourg	1.4	9	0.88	4
Netherlands	2.0	6	1.05	3
Austria	1.2	10	0.38	9
Portugal	1.8	7	0.53	7
Finland	1.5	8	0.16	11
Sweden	-0.2	14	-0.03	14
United Kingdom	-1.1	15	-0.18	15

\* Absolute gap = The difference between the female and the male unemployment rate

\*\* Standardised gap = The absolute gap divided by the male unemployment rate.

Source: Calculations based on data from the European Labour Force Survey.

**Table I.6: Share of inactive who want to work by gender percentages (%)**

	% male working age semester				% female working age semester			Gender Gap for those unemployed and inactive and wishing to work**
	female share of inactive wishing to work	inactive wishing to work	unemployed	unemployed & inactive wishing to work	inactive wishing to work	unemployed	unemployed & inactive wishing to work	
Belgium *	54.3%	3.3%	5.5%	8.8%	4.0%	5.7%	9.8%	1.0%
Denmark	69.6%	2.0%	3.8%	5.8%	4.6%	4.5%	9.1%	3.3%
Germany	66.4%	1.5%	6.8%	8.3%	3.0%	5.8%	8.8%	0.5%
Greece *	81.5%	0.6%	5.5%	6.1%	2.5%	8.2%	10.6%	4.5%
Spain	69.8%	2.2%	8.4%	10.6%	4.9%	11.2%	16.1%	5.5%
France	64.7%	0.5%	7.9%	8.5%	1.0%	8.7%	9.7%	1.2%
Ireland	60.4%	3.5%	4.7%	8.2%	5.4%	3.0%	8.4%	0.2%
Italy	72.1%	3.2%	6.6%	9.8%	8.2%	7.5%	15.6%	5.8%
Luxembourg	75.0%	0.7%	1.4%	2.1%	2.1%	1.4%	3.5%	1.4%
Netherlands	65.7%	3.4%	2.2%	5.7%	6.7%	3.1%	9.9%	4.2%
Austria	68.2%	3.4%	3.8%	7.2%	7.3%	3.0%	10.4%	3.2%
Portugal	69.9%	0.8%	3.4%	4.2%	1.7%	3.4%	5.1%	0.9%
Finland	51.1%	4.9%	8.7%	13.6%	5.2%	9.2%	14.4%	0.8%
Sweden	52.3%	1.8%	6.6%	8.4%	2.0%	5.1%	7.1%	-1.3%
UK	58.7%	4.8%	5.8%	10.6%	6.9%	3.5%	10.5%	-0.1%
Total	65.6%	2.5%	6.5%	9.0%	4.7%	6.5%	11.2%	2.2%

\* Figures for Belgium and Greece are for 1998.

\*\* Absolute difference between female and male values

Source: European Labour Force Survey, 1999

### **I.3. Indicators of gender gaps in employment**

Indicators of equal opportunities and employment should be evaluated and analysed from both perspectives, equality and employment. *Employment* indicators should capture different aspects of employment. The most important aspects are perhaps the impact of the *demand* for female employment as well as the *supply of women to the labour market*. *Measures such as the employment rate reflect both elements and care must be taken in interpreting trends as the cause of slow employment rate growth may be due to deficiencies on the demand side and not obstacles to women's entry into work, as the European employment strategy implicitly assumes.*

The concept of *equality* has changed a lot during the last 20-30 years under the influence of feminist movements, feminist research and equal opportunity policies. In broad terms it could be said that the thinking has shifted from the idea of similarity to an emphasis on gender relations, and the significance of gender and gender difference. In seeking similarity, there was a wish to demonstrate how the position of women was poorer than that of men. Today, equality in work could be defined as equal opportunities for men and women to realise their goals and ambitions in working life. *Equality of outcome* and *equality of opportunity* should also be distinguished. An indicator can describe both, but equality of opportunity needs a more comprehensive description than a single statistical indicator.

The current indicator used in the European Employment Strategy to measure progress of tackling gender gaps in employment is the *absolute employment gap*. This is defined as the difference in employment rates between women and men in absolute figures (percentage points) and constitutes the second indicator of the equal opportunities pillar of the Employment Policy Guidelines (EO<sub>2</sub>).

#### **I.3.1 Advantages and disadvantages of the absolute employment gap**

One of the advantages of the current employment gap indicator is the broad picture it gives of employment trends but it is crude in the sense that it does not tell us anything about the quality of jobs and labour supply. This means that this indicator does not pick up differences in women's employment position stemming from cultural differences in gender relations or qualitative and structural differences in employment. Furthermore, the indicator ignores the gender dimension of



new trends in the labour market, such as flexibilisation, privatisation, technological change, global competition and problems in financing public welfare-services.

There is an obvious gender bias in the measurement of employment based on a headcount of the employed. The gender bias stems from gender inequality in hours worked i.e. the higher incidence of under-employment among women. Part-time work, being the most obvious form of under-employment, should be also taken into account in order to understand overall changes in employment rates. Employment rates should be calculated in full-time equivalents (FTE) to get a better picture of gender gaps in employment. The FTE measures reflect the total volume of hours worked as opposed to the total number of persons in employment. This is usually done by weighting the absolute measures by a factor resulting from the division of the total hours usually worked by those employed in each member state by the average hours worked by those employed full-time in the same country. The latter figure includes men and women.<sup>3</sup>

The Lisbon target of a reduction in the employment gap may also be questioned. The targets calls for the female employment rate to be at least 60% and the total rate at least 70 % by 2010. In Stockholm (2001) targets of 57% for women and 67% for all were introduced for 2005. In order to reach the total rate of 70% with women's employment rate around 60%, the male rate should be 80%, thus producing a gender gap of 20 percentage points. The employment rate gap in the EU was actually 18.6 percentage points in 2000 as many countries already had female employment rates above the target. During the last five years, the gender gap has narrowed by 1.9 percentage points and this will perhaps continue. The target assumes the gap will narrow only in countries where it is now over 20 percentage points. Thus, the Lisbon targets and the indicator of the gender gap in employment rates are not in line with each other. The basis of the targets is to raise overall and female employment rates but the absolute employment rate gap only describes the differences in employment of men and women. This discrepancy is one of the most important disadvantages of the current indicator.

In order to study labour supply and the potential for an increase in employment, more detailed data is needed on the structure of the working-age population and the labour force. This would include, as a minimum, data according to sex, age, education, region and perhaps immigration. These are all influential dimensions to labour supply. For example, employment rates in different

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<sup>3</sup> See table I.8

age groups can highlight policy differences between countries. These policies can include the impact of participation in education on younger age groups, pension policies on older age groups and child care policies on women in the middle age groups. Eurostat data show that employment rates can be very different in different age groups. For example, for women in the 60-64 age group, Finland has a very low employment rate (20%) compared to Sweden (43%), and this difference may be because of differences in retirement schemes. In many other countries these figures, and also that of the age group 50-59, are low because women in these cohorts have traditionally been outside the labour force. In younger age groups, for example 20-24 years, differences in employment rates may be based on differences in education systems and these age groups, and particularly those under 20 years, cannot be regarded as target groups for increasing employment as they are still in education. The greatest potential for an increase in employment is among women aged 25-55 but this growth is very much dependent on child care facilities. However, the educational level of women is also influential; women's labour market attachment is greater the their higher education. The level of competence is an important factor in employability and analysis of the employment rates by education would highlight the location of employment growth potential in each country.

Gender gaps in employment rates are also influenced by the gender composition of labour demand and future demand prospects. Labour demand is very much dependent on country-specific circumstances. For example, in Finland, it is not only the IT sector which will need labour but also communal service sectors, for example caring, where the retirement of the baby-boom generation will lead to labour demand in the future. The distinction between public and private sectors in labour market statistics is important in assessing the future prospects of women's employment. This type of structural information should also be included in employment indicators.

### **I.3.2 Analysis of trends and problems of interpretation**

The current employment indicator does not shed much light on either comparative employment levels or on trends in the gender gaps. Table I.7 shows that the employment gap is widest in Greece (30.2), Spain (29.6) and Italy (27.9) and the smallest in Sweden (3.8), Finland (6.0) and Denmark (9.2). Over recent years this gap has widened slightly in Sweden, Finland, UK and Spain but narrowed in Luxembourg, Greece and Denmark.

**Table I.7: Employment rates by gender and gaps 1996 and 2000 change in percentage points (end year - base year)**

	Men			Women			Absolute $\xi$		
	1996	2000	Change	1996	2000	Change	1996	2000	Change
Austria	76.1	77.0	0.9	58.6	59.4	0.8	17.5	17.6	0.1
Belgium	66.8	69.5	2.7	45.6	51.5	5.9	21.2	18.0	-3.2
Germany	72.7	72.8	0.1	55.4	57.9	2.5	17.3	14.9	-2.4
Denmark	80.5	80.8	0.3	67.4	71.6	4.2	13.1	9.2	-3.9
Spain	61.6	69.9	8.3	32.3	40.3	8.0	29.3	29.6	0.3
Finland	62.4	70.6	8.2	58.4	64.4	6.0	4.0	6.0	2.0
France	67.3	69.3	2.0	52.3	55.3	3.0	15.0	14.0	-1.0
Ireland	66.8	76.1	9.3	42.8	54.0	11.2	24.0	22.1	-1.9
Italy	65.3	67.5	2.2	36.1	39.6	3.5	29.2	27.9	-1.3
Luxembourg	74.4	75.1	0.7	43.6	50.3	6.7	30.8	24.8	-6.0
Netherlands	75.7	82.4	6.7	54.8	63.7	8.9	20.9	18.7	-2.2
Portugal	71.0	76.6	5.6	54.2	60.3	6.1	16.8	16.3	-0.5
Sweden	69.7	74.8	5.1	68.7	71.0	2.3	1.0	3.8	2.8
UK	75.0	77.8	2.8	62.3	64.6	2.3	12.7	13.2	0.5
Greece	72.6	71.1	-1.5	38.5	40.9	2.4	34.1	30.2	-3.9
EU total	69.7	72.5	2.8	50.0	53.9	3.9	19.7	18.6	-1.1

Source: *Employment in Europe 2001*.

Cross-national differences in gender gaps and changes in these gaps can be the result of many different situations and shifts in employment patterns. It is therefore necessary to look at the employment rates of both men and women and the changes over time when evaluating comparative levels of employment and trends in gender gaps.<sup>4</sup> For example, the female employment rates are similar in Finland, UK and Netherlands but only Finland has a narrow gap because of a low male employment rate. Similarly, between 1996 and 2000, the absolute employment rate gender gap fell in Greece by 3.9 percentage points compared to 1.9 percentage points in Ireland. The female employment rate in Greece increased by only 2.4 percentage points, compared to 11.2 in Ireland, and the better performance of Greece in terms of the gender gap is the result of the fall in the male rate by 1.5 percentage points while in Ireland it rose by 9.3 points. This last example raises the question of how we evaluate good performance when monitoring gender gaps in employment rates.

Here we propose that good performance is regarded as a reduction of the gender gap caused by a greater increase of the female relative to the male employment rate rather than a decrease in the male employment rate. For instance, in both Denmark and Greece the absolute employment rate gender gap fell by 3.9 percentage points between 1996 and 2000. However, in Denmark this was

<sup>4</sup> Employment rates by gender are already included among the basic performance (employment) indicators of the European Employment Strategy. Their change over the Luxembourg period is presented in the annual *Joint Employment Reports*.

the result of a stronger increase in the female employment rate relative to that for men (4.2 against 0.3 percentage points). By contrast in Greece, as we have seen, the gender gap fell due to an increase in the female employment rate and a decrease in the male rate. The performance of Denmark should be judged as better than that of Greece, in spite of the same reduction in the gender gap.

Finally the method of measurement will also affect what is good performance. Although the gender gap measured in full-time equivalent employment is the smallest in the same countries as those identified by the headcount rates - Finland, Sweden and Denmark - the biggest gaps are now in the Netherlands, Spain, Greece and Luxembourg (table I.8). The difference in the measurement of gender gap in full-time equivalent employment produces the biggest impact on the employment rates in the Netherlands and UK, two countries where part-time work plays an important role. It is important to note that taking into account gender differences in the distribution of part-time work does not imply that member states should not promote the use of part-time work. However, for gender equality, men and women should be relatively equally represented in this form of work.

**Table I.8: Full-time equivalent<sup>5</sup> employment rates by gender and gaps 1996 and 2000 change in percentage points (end year - base year)**

	Men			Women			Absolute gap		
	1996	2000	Change	1996	2000	Change	1996	2000	Change
Austria	76.0	76.2	0.2	51.3	51.0	-0.3	24.7	25.2	0.5
Belgium	67.0	70.4	3.4	39.7	44.8	5.1	27.3	25.6	-1.7
Germany	71.7	71.1	-0.6	45.8	46.1	0.3	25.9	25.0	-0.9
Denmark	76.4	76.9	0.5	58.0	62.2	4.2	18.4	14.7	-3.7
Spain	60.7	69.0	8.3	29.2	36.6	7.4	31.5	32.4	0.9
Finland	60.5	69.3	8.8	54.3	60.5	6.2	6.2	8.8	2.6
France	67.4	69.2	1.8	46.4	48.7	2.3	21.0	20.5	-0.5
Ireland	65.2	75.8	10.6	37.8	45.2	7.4	27.4	30.6	3.2
Italy	65.1	67.0	1.9	34.3	36.7	2.4	30.8	30.3	-0.5
Luxembourg	74.6	75.9	1.3	39.9	44.7	4.8	34.7	31.3	-3.4
Netherlands	69.7	74.6	4.9	34.5	40.1	5.6	35.2	34.5	-0.7
Portugal	72.1	76.6	4.5	52.2	57.1	4.9	19.9	19.5	-0.4
Sweden	67.9	70.0	2.1	57.8	60.2	2.4	10.1	9.8	-0.3
UK	72.1	74.4	2.3	47.4	49.7	2.3	24.7	24.7	0.0
Greece	73.2	71.5	-1.7	37.4	40.0	2.6	35.8	31.5	-4.3
EU total	68.6	71.0	2.4	42.4	45.3	2.9	26.2	25.7	-0.5

Source: *Employment in Europe 2001*.

The absolute gender gap in employment rates may also hide further inequalities in employment by age and education. The employment rate gender gap tends to increase with age and there are gaps of 20 percentage points or more in eight countries for the oldest age group (table I.9). This compares to gaps of less than ten percentage points in all countries except Portugal and Spain for the 15-24 year olds and in Sweden the gap is reversed in favour of women for this age group. The employment rate gender gap is greatest among the least educated with the gap rising to over 35 percentage points in Greece, Italy and Spain and over 20 points in four more countries (table I.10). By contrast the gap is less than ten percentage points for the higher educated group in ten countries and just 0.1 of a percentage in Sweden. Only in Ireland is the gender gap lower among the least educated.

<sup>5</sup> Full-time equivalent employment (FTE) is calculated as the total hours usually worked by those employed in each Member State, including in second jobs, divided by the average hours worked by those employed full-time in the same country. The latter figure includes men and women and is taken as a common measure of full-time employment when estimating the figures for men and women separately.

**Table I.9: Employment rates by age and gender gaps, 2000.**

	female				male				gender gap			
	15-24	25-54	55-64	15-64	15-24	25-54	55-64	15-64	15-24	25-54	55-64	15-64
Belgium	26.7%	67.8%	15.4%	51.9%	33.7%	87.9%	35.1%	69.8%	7.0%	20.1%	19.7%	17.9%
Denmark	64.0%	80.4%	46.3%	72.1%	70.3%	88.3%	61.9%	80.7%	6.3%	7.9%	15.7%	8.6%
Germany	43.6%	71.1%	28.7%	57.8%	48.6%	87.4%	46.2%	72.7%	5.0%	16.3%	17.6%	14.9%
Greece	22.0%	52.6%	24.4%	41.3%	31.9%	88.6%	55.3%	71.3%	9.9%	35.9%	30.9%	30.0%
Spain	26.4%	50.6%	19.9%	40.3%	37.0%	85.4%	54.8%	69.6%	10.7%	34.8%	34.8%	29.3%
France	25.2%	69.6%	26.0%	54.8%	31.4%	87.3%	32.8%	68.8%	6.2%	17.7%	6.7%	14.0%
Ireland	43.3%	62.7%	27.1%	53.2%	52.1%	88.1%	63.0%	75.4%	8.8%	25.3%	35.9%	22.2%
Italy	22.0%	50.7%	15.2%	39.3%	30.2%	84.6%	40.3%	67.6%	8.2%	33.9%	25.1%	28.3%
Luxembourg	28.5%	63.0%	17.0%	50.1%	35.4%	92.9%	38.0%	75.1%	6.9%	29.9%	21.1%	25.0%
Netherlands	66.7%	70.9%	25.8%	63.4%	69.9%	92.2%	49.9%	82.1%	3.2%	21.4%	24.1%	18.7%
Austria	48.6%	73.5%	17.8%	59.7%	56.5%	89.7%	41.3%	76.2%	7.9%	16.2%	23.5%	16.5%
Portugal	36.1%	73.9%	42.3%	60.4%	47.7%	90.2%	62.6%	76.2%	11.6%	16.4%	20.3%	15.9%
Finland	43.8%	77.6%	40.6%	65.2%	47.0%	84.6%	41.8%	71.1%	3.3%	7.0%	1.1%	5.9%
Sweden	37.1%	80.9%	61.7%	69.7%	36.6%	84.1%	67.0%	72.6%	-0.5%	3.2%	5.3%	2.9%
UK	53.5%	73.1%	41.4%	64.5%	58.2%	87.5%	59.8%	77.9%	4.7%	14.4%	18.4%	13.4%
EU15	36.5%	65.7%	27.7%	53.8%	43.3%	87.1%	47.6%	72.4%	6.8%	21.3%	19.8%	18.6%

Source: ELFS 2000

**Table I.10: Employment rates by educational attainment and gender gaps, 2000.**

	female				male				Gender Gap			
	low	medium	high	total	low	medium	high	total	low	medium	high	total
Belgium	31.0%	56.2%	81.3%	51.9%	55.0%	75.9%	89.8%	69.8%	24.0%	19.6%	8.4%	17.9%
Denmark	55.5%	76.5%	86.3%	72.8%	69.0%	83.4%	90.2%	81.1%	13.5%	6.9%	3.9%	8.2%
Germany	46.3%	63.8%	77.9%	61.8%	67.8%	76.1%	86.3%	77.2%	21.5%	12.2%	8.4%	15.5%
Greece	31.7%	42.6%	74.1%	41.3%	66.7%	71.2%	85.6%	71.3%	35.1%	28.6%	11.5%	30.0%
Spain	31.7%	42.7%	67.3%	41.1%	69.8%	64.0%	81.5%	71.1%	38.1%	21.3%	14.2%	30.0%
France	39.1%	61.3%	75.1%	54.8%	53.9%	75.9%	82.7%	68.8%	14.9%	14.7%	7.6%	14.0%
Ireland (99)	19.0%	41.5%	69.0%	44.4%	25.5%	67.9%	85.4%	68.0%	6.4%	26.4%	16.5%	23.6%
Italy	26.5%	53.5%	74.2%	40.2%	61.5%	73.6%	87.5%	68.0%	35.0%	20.1%	13.3%	27.8%
Luxembourg	41.3%	51.6%	72.6%	50.3%	68.2%	75.8%	86.2%	75.1%	26.9%	24.2%	13.6%	24.8%
Netherlands	47.0%	72.1%	81.4%	64.2%	74.6%	86.3%	90.1%	83.2%	27.5%	14.2%	8.7%	19.0%
Austria	42.2%	66.1%	82.0%	59.7%	56.2%	80.6%	88.5%	76.2%	14.0%	14.5%	6.5%	16.5%
Portugal	60.1%	58.5%	88.4%	62.5%	77.2%	69.1%	92.2%	77.1%	17.1%	10.6%	3.8%	14.5%
Finland	45.8%	68.4%	81.5%	65.7%	53.7%	76.7%	87.4%	71.7%	7.9%	8.3%	5.9%	6.1%
Sweden	52.0%	75.3%	82.7%	71.7%	58.7%	79.5%	82.8%	74.5%	6.7%	4.2%	0.1%	2.8%
UK	47.7%	72.5%	84.9%	70.2%	57.0%	81.6%	89.7%	79.8%	9.3%	9.1%	4.8%	9.6%
EU15	37.9%	62.2%	77.9%	55.5%	63.4%	76.6%	86.3%	73.8%	25.4%	14.4%	8.5%	18.4%

Note: Ireland = 1999, EU includes Ireland 1999

Source: ELFS 2000

### **I.3.3 Recommendations with respect to employment indicators of gender equality**

We do not propose the replacement of the absolute employment gap indicator, but suggest adopting the following supplementary indicators:

- Include the absolute employment gender gap in full-time equivalents as an indicator of gender inequality in the volume of employment, taking into account gender differences in both participation into employment and working time (table I.8). It is defined as the difference between the female and male employment rates measured in full-time equivalent in percentage points. The data source to be used is the ELFS.
- Include the absolute employment gender gap by age group (table I.9) and educational attainment level (table I.10) to assess employment performance with respect to target groups. These indicators are defined as the difference between the female and the male employment rates by age group (15-24, 25-54, 55-64) and educational attainment level (less than upper secondary, upper secondary and tertiary education) in percentage points. The data source to be used is the ELFS.
- Include the standardised employment gender gap as an indicator of the significance of the gap relative to the employment level (see table I.11). It is defined as the difference between the employment rates of women and men divided by the male employment rate. The data source to be used is the ELFS.
- Examine changes in the absolute gender gap in relation to changes in employment rates for women and men individually (see table I.7), so that good performance is correctly evaluated.



**Table I.11: Absolute and standardised employment gender gaps, 2000.**

	Absolute gap	Ranking	Standardised gap	Ranking
Austria	17.6	8	-0.23	7
Belgium	18.0	7	-0.26	6
Germany	14.9	10	-0.20	10
Denmark	9.2	13	-0.11	13
Spain	29.6	2	-0.42	2
Finland	6.0	14	-0.09	14
France	14.0	11	-0.20	11
Greece	30.2	1	-0.42	1
Ireland	22.1	5	-0.29	5
Italy	27.9	3	-0.41	3
Luxembourg	24.8	4	-0.33	4
Netherlands	18.7	6	-0.23	8
Portugal	16.3	9	-0.21	9
Sweden	3.8	15	-0.05	15
UK	13.2	12	-0.17	12

\* Absolute gap = the difference between the female and the male employment rate

\*\* Standardised gap = the absolute gap divided by the male employment rate.

Source: Calculations based on data from Employment in Europe 2001.

## **I.4. Gender gaps in quality of employment**

Indicators on the quality of employment are also important in analysing equality from a gender perspective, since gender equality in employment has both a quantitative and qualitative dimension. We therefore welcome the designation of ‘better jobs’ as a general goal of the European Employment Strategy beside the goal of higher employment from the Lisbon and Stockholm summits. Our proposals for indicators on gender gaps in quality of employment in this section draw on the on-going debate at the Community level on the selection of appropriate indicators reflecting the multiple dimensions of employment quality. These proposed indicators are by no means exhaustive and above all intend to underline the need for gender mainstreaming in this area, which goes beyond breaking down indicators by gender.

### **I.4.1 The need for indicators on gender gaps in employment quality**

Although indicators for gender gaps in the quality of employment do not exist under the Equal Opportunities Pillar of the European Employment Guidelines 2001, it is recognised that “increasing the quality of jobs should also be taken into consideration“ in raising the rate of employment (European Council 2001a). Employment quality was first mentioned at the Lisbon summit which put forward the twin goals of more and better jobs. One year later the

Stockholm summit reaffirmed that “regaining full employment not only involves focusing on more jobs, but also on better jobs”. The conclusion paper points out that “[t]he quality of work is to be included as a general objective in the 2002 employment guidelines” and “the Council together with the Commission will develop indicators on quality in work and will make quantitative indicators more accurate ” (European Council 2001b).

The plan to raise the quality of jobs and living standards was adopted by the European Commission in Brussels on the 20<sup>th</sup> of June 2001. The new strategy includes identification of good practice, benchmarking and the use of “quality indicators” for individual jobs, labour markets and social policies (European Commission 2001C). According to the European Commission (2001a):

“the proposals – for quality indicators and quality reviews – include existing and new indicators and will feed into existing processes such as the annual co-ordination of employment policies. The indicators are intended for endorsement at the Laeken summit in December 2001”.

The indicators proposed by the European Commission seek to measure the quality of jobs along two broad dimensions. Firstly, “job characteristics” such as working-time, skills and training prospects and, secondly, “work environment/labour market characteristics” such as gender pay gap, flexibility and security of employment and work and life balance (European Commission 2001a). Some of these proposed indicators already exist under the Equal Opportunities Pillar of the European Employment Guidelines 2001 but others have to be discussed and above all defined in a way that the gender dimension/gap in the quality of employment is reflected appropriately.

#### **I.4.2 Proposed indicators for gender gaps in quality of employment**

The monitoring of gender equality and employment within the European Employment Strategies should pay particular attention to so-called “atypical employment”. Rising employment rates in European countries over recent years are mostly due to an increase in female employment and many of these new employment opportunities have been atypical jobs, often part-time jobs, especially in the service sector, but also fixed-term jobs (European Commission 2001b). Part-time and fixed-term jobs are more likely to be jobs of “poor quality” i.e. jobs with precarious

employment relationships, low pay, lack of further education and career development prospects. Thus gender gaps in employment by contract type can be used as proxies for gender-specific differences in access to high quality jobs. Furthermore, “those employed in jobs of poor quality are also at much higher risk of becoming unemployed or of dropping out of the labour force” (ibid, p. 66).

Some forms of atypical employment are also excluded from all or some part of the social security systems. For example, in Austria the “marginally employed”, those earning less than ATS 4.076 per month in 2001, are excluded from unemployment insurance. Similarly “service contractors” and the so-called “new self-employed” (free-lance and related workers whose job does not require a trade or business licence) are also excluded from unemployment insurance and are not entitled to claim sickness benefits.

Women’s greater involvement in atypical work means that indicators on the gender gaps in atypical employment are highly important in monitoring the situation and development of gender equality and employment. The type of contract, namely part-time work and fixed-term contracts, and hours worked should be taken into consideration when analysing the quality of employment (European Commission 2001a). On the one hand short-hours of work (for example, less than 15 or less than 12 hours per week), widely experienced among women employed part-time in Austria, the Netherlands and the UK, often means low pay, low social security benefits, lack of training and career development prospects. On the other hand, long-hours work, especially overtime, may not only cause serious safety and health problems, but also reduces the possibilities to reconcile work and family life.

Short-hours work - more common among women - and long-hours work - more common among men - can be considered socially undesirable, as they reinforce the traditional gender-specific division of labour, i.e. women primarily engaged in non-paid care and housework and men engaged almost exclusively in paid work. Since a “socially desirable division of labour” should favour a more equal division of non-paid care and housework, paid working hours should be more equally distributed between women and men. For these reasons the integration of indicators for gender gaps in hours worked into the European Employment Strategy would not only be instructive but also important to promote sustainable gender equality in employment.

Our proposals for new gender indicators on employment quality within the European Employment Strategy can be considered under two headings; gender gaps by contract type and gender gaps in social security coverage.

*Gender gaps in contract type and hours worked*

- Gender gap in fixed-term contracts<sup>6</sup>: defined as the share of women on fixed-term contracts in all female employees divided by the share of men on fixed-term contracts in total male employees
- Gender gap in part-time work<sup>7</sup>: defined as the share of women in part-time work among all female employees<sup>8</sup> divided by the share of men in part-time work among all male employees
- Gender gap in short-hours work (for example less than 15 hours): defined as the share of women in short-hours work among all female employees divided by the share of men in short-hours work among all male employees
- Gender gap in long-hours work (for example more than 40 hours): defined as the share of women in long-hours work among all female employees divided by the share of men in long-hours work in all male employees

The proposed indicators for gender gaps by contract type and hours worked could be integrated into the Equal Opportunities Pillar under Guideline 17 (Tackling Gender Gaps). A possible source of data for the proposed indicators could be the European Labour Force Survey.

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<sup>6</sup> The information provided by the proposed indicators for gender gaps in fixed-term contracts should be supplemented by investigations on the features of fixed-term contracts and existing gender-specific differences. Do such contracts facilitate the access of first-job-seekers to employment? Do they tend to be transformed into permanent contracts or to be traps for workers?

<sup>7</sup> The information provided by the proposed indicator should be combined with data on involuntary part-time by sex, already provided by the indicator EO<sub>9</sub> under Guideline 18 of Pillar IV. However, the divide between voluntary and involuntary part-time does not correspond to the divide between good and poor quality of employment, since 'free' choice is shaped under given structures of constraint and does not exclude objective disadvantage of the majority of voluntary part-timers in relation to pay, career prospects and social rights.

<sup>8</sup> Since part-time employees, especially in the service sector, constitute the largest part of additional part-time employment in European countries over the last years and since there are also great differences between traditionally self-employed part-timers (in agriculture) and part-time employees (in the service sector), we here refer to part-time employees only. The consideration of the relatively high number of female family helpers traditionally employed in agriculture in countries with a large agricultural sector, who are often classified as part-timers due to the short-hours they work, would distort the picture of the differences in the increase of part-time employment across European countries.

### *Gender gap in social security*

- Gender gap in the coverage of social protection system: defined as the share of employed women covered by social security divided by the share of employed men covered by social security.

The coverage or non-coverage of social protection provides important information about the gender dimension to the quality of new forms of employment. The proposed indicators for the gender gap in social security could be integrated into the Equal Opportunities Pillar under Guideline 16 (Gender Mainstreaming). In fact an objective is Guideline 16 is “to ensure that women are able to benefit positively from flexible forms of work organisation, on a voluntary basis and without loss of job quality” (European Commission 2001b). A possible source of data for indicators on the gender gap in social security could be the European Community Household Panel and the Statistics on Incomes and Living Conditions Survey that replaces it in 2003.

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**Appendix table I.1a: Outflows from unemployment to employment by gender\***

	1997		1998		1999		2000	
	Men	Women	Men	Women	Men	Women	Men	Women
Austria	26.9	39.6	N/a	n/a	n/a	n/a	n/a	n/a
Belgium	18.7	16.1	20.2	14.7	19.9	20.5	24.4	17.2
Germany	25.1	24.6	27.2	25.6	28.3	26.2	27.2	27.7
Denmark	44.8	31.1	43.1	36.4	47.2	40.9	43.4	37.3
Spain	38.7	24.5	42.5	27.1	49.9	34.3	49.5	37.4
Finland	22.3	27.6	22.7	29.5	26.0	28.1	27.5	29.5
France	33.2	30.9	33.1	29.6	32.4	27.0	39.5	32.8
Greece	33.3	18.6	34.1	18.9	29.8	22.0	34.1	24.1
Ireland	21.0	33.3	N/a	n/a	n/a	n/a	n/a	n/a
Italy	28.7	21.2	31.2	23.0	30.6	23.1	40.6	32.1
Luxembourg	(50.0)	(50.0)	(50.0)	(50.0)	(50.0)	(50.0)	(50.0)	(100.0)
Netherlands	14.8	14.3	28.5	21.8	27.5	22.2	n/a	n/a
Portugal	38.0	31.4	47.4	41.8	40.4	42.7	45.8	42.3
Sweden	29.3	27.7	42.9	33.8	40.0	35.7	37.1	36.5
UK	37.2	44.4	41.6	45.4	36.6	45.2	40.3	46.1
EU-15	31.1	26.1	33.7	27.4	34.0	28.5	38.2	32.6

Note: \* Share of last year's unemployed who are employed this year.

Note: "-" empty or unreliable cell "(") cells must be regarded with caution "n/a" not available

Source: European Labour Force Survey.

**Appendix Table I.1b: Outflows from unemployment to inactivity by gender\***

	1997		1998		1999	
	Men	Women	Men	Women	Men	Women
Austria	25.4	24.5	n/a	n/a	n/a	n/a
Belgium	26.9	34.1	25.3	36.5	34.3	42.5
Germany	16.3	19.9	15.6	18.8	16.6	19.7
Denmark	26.9	43.4	33.8	38.6	20.8	36.4
Spain	5.1	9.1	5.4	9.7	6.2	9.1
Finland	34.0	31.9	31.9	36.4	34.2	38.6
France	10.8	17.1	17.5	22.5	17.6	25.0
Greece	8.8	11.4	8.0	11.3	n/a	n/a
Ireland	26.6	26.7	n/a	n/a	n/a	n/a
Italy	24.4	32.1	22.5	28.6	22.9	28.2
Luxembourg	-	-	-	-	-	-
Netherlands	51.5	57.1	46.9	54.5	48.7	58.0
Portugal	17.7	26.1	11.3	18.1	8.3	17.9
Sweden	12.1	26.5	18.4	29.2	-	26.2
UK	13.8	24.6	12.8	23.0	15.9	24.3
EU total	16.5	22.4	16.8	22.1	17.8	23.7

Note: \* Share of last year's unemployed who are inactive this year.

Note: "-" empty or unreliable cell "(") cells must be regarded with caution "n/a" not available

Source: European Labour Force Survey.

**Appendix Table I.2: Changes of the absolute unemployment rate gap decomposed by gender (1997-2000) percentage points (end year - base year)**

	Change of the gender gap	Change of the female rate	Change of the male rate
Belgium	-1.6	-3.3	-1.7
Denmark	-1.1	-1.5	-0.4
Germany	-0.7	-2.2	-1.5
Greece	0.6	1.5	0.9
Spain	-1.5	-7.7	-6.2
France	-0.1	-2.9	-2.8
Ireland	-0.1	-5.7	-5.6
Italy	-0.6	-1.9	-1.3
Luxembourg	-0.6	-1.0	-0.4
Netherlands	-1.1	-3.1	-2.0
Austria	-0.5	-1.0	-0.5
Portugal	0.2	-2.5	-2.7
Finland	0.8	-2.4	-3.2
Sweden	0.5	-3.7	-4.2
United Kingdom	0.8	-1.1	-1.9
EU – 15	-0.1	-2.4	-2.3

Source: European Labour Force Survey.

**Appendix Table I.3: Absolute unemployment gaps decomposed by gender and female flows into and out of unemployment**

	Change of fem rate	Change of male rate	Change of gap	Outflows U > E	Outflows U > IN	Inflows IN > U	Inflows E > U
Belgium	-0.3	0.4	-0.7	-	+	+	+
Denmark	-0.2	-0.5	0.3	+	-	+	no change
Germany	-0.7	-0.4	-0.3	+	-	-	-
Greece	1.5	0.7	0.8	+	-	+	+
Spain	-1.7	-2.2	0.5	+	+	+	-
France	-0.5	-0.6	0.1	-	+	-	-
Italy	0.0	-0.2	0.2	+	-	+	-
Netherlands	-1.7	-0.8	-0.9	+	-	-	-
Portugal	-1.3	-2.0	0.7	+	-	-	-
Finland	-1.0	-1.4	0.4	+	+	no change	-
Sweden	-1.4	-1.6	0.2	+	+	-	-
United Kingdom	-0.5	-0.9	0.4	+	-	-	-
EU – 15	-0.6	-0.7	0.1	+	-	-	-

Source: Data from tables 6a and 6b and ELFS



## **II. Indicators on Gender Segregation**

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### **II.1 Introduction**

Segregation of the labour market from a gender perspective has been frequently presented as one of the prevailing characteristics of European labour markets. Desegregation has been considered a main task of the European Employment Strategy under the pillar of Equal Opportunities.

The objective of this study is to analyse ways of measuring gender segregation, and to consider specifically how the different types of indices can be used and interpreted. We also have as our task to give recommendations as to how segregation should be measured using current tools and to suggest improvements to existing ways of measure segregation.

It is, however, important first to understand what segregation is, why we try to measure it and what we want to accomplish by these measurements. The following questions therefore need to be answered:

- Is segregation a problem, and if so why?
- What do we learn from making international comparisons of segregation indices?
- Is it useful to make these comparisons on an annual basis?

#### **II.1.1. Does segregation matter?**

Segregation is a result of multidimensional process. It manifests itself in differences in gender patterns of representation within occupations (both classified by industries and by professional status) and within different employment status and employment contract groups. Gender segregation means that women and men to a certain extent work in different occupations or in different sectors or under different contractual terms and conditions.

It is, however, important to question the concept of segregation – not only in interaction with time and place – but also in interaction with the scale of women’s employment and unpaid work. Differences in gender segregation in the labour market cannot be discussed without including a discussion of differences between countries on the scale of women’s employment and the division of work in households - that is the gender segregation in caring, maintenance and bread-winning. With a two-breadwinner model as the norm, as in the Scandinavian countries, part of the work in households is ‘subcontracted’. This applies mostly to former ‘do-it-yourself’-women’s work in the household (knitting, sewing, repairing clothes etc.) which has been taken over by industrial production, and in the main moved to other countries, in the EU and elsewhere, with lower paid labour. Caring for children, disabled and elderly has been taken over by the public sector and mostly turned into employment for women. At the same time, families with small children (or other caring/provision problems) are dependent on family friendly work schedules, which may result in at least one of the two breadwinners in the family (usually the woman) being employed in a family friendly occupation. The amount and content of unpaid work undertaken within the household and by families is thus shaped not only by the distribution of occupations but also by the distribution of women’s occupations. The result is that a high employment rate for women tends to be connected to high gender segregation in the labour market.

In the academic debate on gender segregation there are two traditional standpoints with different specific strategies. One standpoint is that gender segregation reveals real gender differences, as it indicates discrimination towards women in the male-dominated labour market. At the same time, segregation is argued to be one of the causes of wage differences and the theory is that equal wages will be an illusion as long as barriers into the different labour markets divide women and men and assign them to female and male work tasks. The mechanisms through which the separation of genders is upheld and reshaped also contribute to form gender differences and discrimination in relation to working conditions. The division of work in organisations is another dimension to segregation. It is regulated by gendered mechanisms and processes of power and has influence on different levels and in different spheres of life.

The other standpoint is that gender segregation is not the problem and that the wage gap could and should be removed by other means than by creating a gender homogeneous labour market. If women and men have the same wage for equal work or work of equal value and the same working conditions, gender segregation would be no problem. Indeed, gender segregation

may in certain situations be an advantage, for instance in the effort to create family friendly workplaces. For example, experience from Denmark shows that family friendly occupations are mostly found in the female-dominated sectors, as most male-dominated sectors as well as male-dominated unions are still unwilling to rethink their systems of work organisation (see, for example, Holt and Thaulow 1996).

History shows that gender integration of occupations has for the most part ended with a return to gender segregation - although with a new structure and up to a point a new content. Inequality in wage and working conditions was persistent (Reskin and Roos 1990; Crompton and Sanderson 1990). It can take great effort and several generations to break down gender segregation of occupations and sectors, and it may prove a particularly difficult task in countries where the labour market participation of women is already high. Substantial reductions in gender segregation will require more extensive measures, including changes in the content and organisation of work in traditionally male- and female-dominated areas, as well as changes in young women's and men's choice of education very early in life.

One conclusion, which we can propose already, is that it is not enough to study segregation per se. More intensive research is needed on the process of occupational integration and on how new gender divisions subsequently develop in the workplace.

### **II.1.2. The link between segregation and the European employment strategy**

A strategy to reduce gender segregation can be seen as one tool to stimulate a closer relation between macro level policy at the European level and issues at the workplace level.

Data from the EU indicates high levels of gender segregation in Denmark, Finland and Sweden, and the Council, on the basis of these indices, has recommended that these countries reduce gender segregation in their employment policies for the year 2000. There is a strong element of inconsistency here. The high gender segregation in Denmark, Finland and Sweden is combined with highest female employment rates, and according to the 1999 Joint Employment Plan *'a segregated labour market with high employment rate should be considered preferable to one with less segregation but low employment rate for women'* (JER 1999:70). The high female employment rates in these countries are also combined with a high female education level. This suggests that information on segregation should be combined with information on age and education to enable the Council to evaluate trends as well as

levels of gender segregation. It should be noted that it is in any case more difficult to change patterns of segregation in the short term in member states where the majority of the female population is already in jobs. There may be more scope for changing patterns of segregation where there are large supplies of female labour to be mobilised into new job areas or segments.

## II.2. Measures of segregation

To measure segregation, researchers have essentially used index measures. Traditionally, the most commonly used are:

- the Index of dissimilarity (ID);
- the Moir and Selby-Smith segregation indicator (MSS) also called WE Index<sup>9</sup>;
- the standardised or Karmel and MacLachlan Index (IP)<sup>10</sup>;

A more recently introduced measure, which needs a different kind of calculation, is:

- the Index of Segregation calculated according to the marginal matching method<sup>11</sup> (IS or MM).

### II.2.1 Traditional measures

*The index of dissimilarity (ID)* is based on the understanding that segregation means a different distribution of women and men across the occupational categories; the more equal the distribution, the less the segregation.

The ID-index measures the sum of the absolute difference in women's and men's distribution over occupations.<sup>12</sup> From the mathematical formula (Box II.1 (1.1)) it is evident that the ID-

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<sup>9</sup> Moir H. and Selby Smith J. (1979). WE stands for *Women and Employment* and indicates that this Index was introduced in a OECD report published in 1980 under this title

<sup>10</sup> Watts, M. (1992).

<sup>11</sup> Blackburn M., Jarman J. and Siltanen S., (1993).

index equals 0 in case of *complete equality* (where women's employment is distributed similarly to men's across occupations) and 1 in the case of *complete dissimilarity* (where women and men are in totally different occupational groups). The ID-index can be interpreted as the proportion of the workforce (persons in employment) which would need to change jobs in order to remove segregation - considering the difference in the female and male share of employment (formula (1.2) in Box II.1). A change in the ID indicator is only due to a change in dissimilarity.<sup>13</sup>

**Box II. 1: Index of dissimilarity (ID)**

**The index of dissimilarity (ID)** is according to Blackburn and al., 1993, p.343 defined as:

$$(1.1) \quad ID = \frac{1}{2} \sum_i \left| \frac{M_i}{M} - \frac{F_i}{F} \right|$$

The ID-formula can be rewritten as

$$(1.2) \quad ID = \frac{1}{N} \sum_i \frac{1}{2} \cdot \left| M_i \cdot \frac{N}{M} - F_i \cdot \frac{N}{F} \right|$$

**Special case:** If the female and male share of employment is equal, we have that  $\frac{N}{M} = \frac{N}{F} = 2$  and

$$(1.3) \quad ID = \frac{1}{F} \sum_i \frac{1}{2} \cdot |M_i - F_i| \quad \text{and similar:} \quad ID = \frac{1}{M} \sum_i \frac{1}{2} \cdot |M_i - F_i|$$

**M** represents the total number of males in employment, **M<sub>i</sub>** the number of males in occupation *i*

**F** total number of females in employment, **F<sub>i</sub>** the number of females in occupation *i*

In the special case, where women's share of employment equals that of men's, the ID index can be interpreted as the proportion of women (or men) who would have to change jobs to remove segregation (formula (1.3) in Box II.1).

<sup>12</sup> Or over sectors. The discussion here is based on the distribution over occupations – but the discussion based on sectors will be similar.

<sup>13</sup> A change in dissimilarity can be a result of a change in occupational structure, and as such does not necessarily indicate a more – or less - even gender distribution given the same occupational structure.

**The Moir and Selby-Smith segregation indicator (MSS)**, also called WE Index, is based on the understanding that segregation means that the proportion of women within the occupational categories is different from the proportion of women in employment.

The MSS-index measures the sum of the absolute difference of the proportion of women and the proportion of employed over occupations (formula (2.1) Box II.2). The MSS-index equals 0 in case of complete equality, and twice the male share of employment ( $2 \cdot M/N$ ) in the case of complete dissimilarity (formula (2.2) in Box II.2). A change in the MSS indicator may be due to a change in dissimilarity or to a change in the proportion of women in employment – eventually to a combination of the two.

**Box II. 2: The Moir and Selby-Smith segregation indicator (MSS)**

The Moir and Selby-Smith segregation indicator (MSS) also called WE Index is defined as

$$(2.1) \quad MSS = \sum_i \left| \frac{F_i}{F} - \frac{N_i}{N} \right|$$

By calculations:

$$\sum_i \left| \frac{N_i}{N} - \frac{F_i}{F} \right| = \sum_i \left| \frac{M_i}{N} + \frac{F_i}{N} - \frac{F_i}{F} \right| = \frac{M}{N} \sum_i \left| \frac{M_i}{M} + \frac{F_i}{M} - \frac{N}{M} \cdot \frac{F_i}{F} \right| = \frac{M}{N} \sum_i \left| \frac{M_i}{M} + \left( \frac{F}{M} - \frac{N}{M} \right) \cdot \frac{F_i}{F} \right| = \frac{M}{N} \sum_i \left| \frac{M_i}{M} - \frac{F_i}{F} \right|$$

the MSS-indicator can be reformulated as

$$(2.2) \quad MSS = \frac{M}{N} \sum_i \left| \frac{M_i}{M} - \frac{F_i}{F} \right| = 2 \cdot \frac{M}{N} \cdot ID \quad \text{which shows the relation between the two indexes}$$

**Special case:** If the female and male share of employment is equal ( $\frac{F}{N} = \frac{M}{N} = 1/2$ ) we have

$$(2.3) \quad MSS = ID$$

**M** represents the total number of males in employment, **M<sub>i</sub>** the number of males in occupation *i*

**F** total number of females in employment, **F<sub>i</sub>** the number of females in occupation *i*

**N** the total number in employment and **N<sub>i</sub>** the total number in occupation *i*.

The MSS-index can be interpreted as the proportion of the workforce (persons in employment) which would need to change jobs in order to remove segregation. The more equal distribution over occupation for women and men the less segregation. Segregation will however also decline (in this understanding) for a declining male share of employment.

The MSS-index is a multiplication of the ID-index by two and by the male share of employment, and the MSS-index will thus be higher than the ID-index, as long time as the male share of employment is higher than the female share. In the special case where women's share of employment equals that of men's, the MSS-index equals the ID-index (formula (2.3) in Box II.2). This shows that as the female share of the work force is growing and becoming more equal to that of men, the two indexes will become more equal. One of the main disadvantages of the MSS-index is that it takes on different values, dependent upon whether it is the proportion of women relative to the overall proportion of women that is the basis of calculation, or the proportion of men relative to the overall proportion of men, that is measured.

**The standardised or Karmel and MacLachlan (IP)** is also based on the understanding that segregation means a different distribution of women and men across the occupational categories, and the more equal the distribution over occupations for women and men, the less the segregation. The IP-index takes, however, account of differences in the female and male share of employment (formula (3.1) in Box II.3).

### Box II. 3: The standardised or Karmel and MacLachlan-index (IP)

**The standardised or Karmel and MacLachlan-index (IP)** is defined as:

$$(3.1) \quad IP = \frac{1}{N} \sum_i \left| \left(1 - \frac{M}{N}\right) \cdot M_i - \frac{M}{N} \cdot F_i \right|$$

By calculations the IP-indicator can be rewritten in other forms, while

$$\left(1 - \frac{M}{N}\right) \cdot M_i - \frac{M}{N} \cdot F_i = M_i - \frac{N_i}{N} \cdot M \quad \text{and similar} \quad \frac{F}{N} \cdot M_i - \frac{M}{N} \cdot F_i = \frac{N_i}{N} \cdot F - F_i$$

$$(3.2) \quad IP = \frac{1}{N} \sum_i \left| M_i - \frac{N_i}{N} \cdot M \right| = \frac{1}{N} \sum_i \left| \frac{N_i}{N} \cdot F - F_i \right| = \frac{1}{N} \sum_i \frac{1}{2} \left( \left| M_i - \frac{N_i}{N} \cdot M \right| + \left| F_i - \frac{N_i}{N} \cdot F \right| \right)$$

$$(3.3) \quad IP = \frac{F}{N} \sum_i \left| \frac{N_i}{N} - \frac{F_i}{F} \right| = \frac{F}{N} \cdot MSS = 2 \cdot \frac{M}{N} \cdot \frac{F}{N} \cdot ID \quad \text{shows the relation between indexes}$$

**Special case:** If the female and male share of employment is equal ( $\frac{F}{N} = \frac{M}{N} = \frac{1}{2}$ ) we have

$$(3.4) \quad IP = \frac{1}{N} \sum_i \frac{1}{2} \cdot \left( \left| M_i - \frac{1}{2} \cdot N_i \right| + \left| F_i - \frac{1}{2} \cdot N_i \right| \right) = \frac{1}{2} \cdot MSS = \frac{1}{2} \cdot ID$$

**M** represents the total number of males in employment, **M<sub>i</sub>** the number of males in occupation *i*  
**F** total number of females in employment, **F<sub>i</sub>** the number of females in occupation *i*  
**N** the total number in employment and **N<sub>i</sub>** the total number in occupation *i*.

The IP-index can, as such, be interpreted as the proportion of the workforce (persons in employment) which would need to change jobs in order to remove segregation - considering the female and male shares of occupations.

The IP-index equals 0 in *case of complete equality*, and twice the male share multiplied by the female share of employment ( $2 * M/N * F/N$ ) in the *case of complete dissimilarity* (formula (3.4) in Box II.3). As the function  $M/N * F/N$  (which equals  $(1 - F/N) * F/N$ ) has its maximum for  $M/N = F/N = 1/2$ , the maximum for the IP-index is  $1/2$ .<sup>14</sup>

The IP-index is similar to the MSS-index and the ID-index (formula (3.4) in Box II.3), and the IP-index can, as with these indices be interpreted as the proportion of the workforce (persons in employment) which would need to change jobs in order to remove segregation. The more equal the distribution over occupations for women and men the less the segregation. Segregation for this index will, however, *increase for an increasing female share of employment* (that is a decreasing male share), as the function  $M/N * F/N$  is increasing for an increasing female share of employment ( $F/N$ ) as long as this share is less than a half.

A change in the IP-index may be due to a change in dissimilarity or to a change in the proportion of women in employment – eventually to a combination of the two. *Less dissimilarity combined with a higher proportion of women in employment may, however, result in a higher measure of segregation.*

The three indexes are related (formula (3.4) in Box II.3) and are all dependent on the occupational structure of the economy. The results of the indices may, however, point in different directions for the same development in women's labour market participation. If, for instance, the female share of employment increases (towards  $1/2$ ) while the occupational distribution of women's (as well as men's) employment remains stable, the ID-index will show no difference, the MSS-index will decrease indicating lower segregation, and the IP-index will increase, indicating higher segregation.

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<sup>14</sup> The word 'indicator' may be used in place of 'index' to allow for the fact that the MSS-measure range from 0 to  $1/2$  (not to 1).



None of these traditional indices provide an entirely satisfactory method of measuring gender segregation over time. This is in part because changes in the distribution of women and men across occupations are unlikely to happen in a context of either the occupational structure remaining stable or the female share of the labour force remaining constant. Much of the debate about appropriate measures has revolved around the appropriate way to take into account these simultaneous changes in female employment shares and occupational structure. The final method we will consider, marginal matching, has taken a different approach, choosing to treat the dependence of the measures on occupational structure and the female share of employment as an advantage rather than as a disadvantage.

### **II.2.2. Marginal matching**

Blackburn, Jarman and Siltanen suggest a fresh approach to the study of segregation called Marginal Matching (MM) – later named the index of segregation (IS).<sup>15</sup> This approach is based on the same understanding of segregation as the previous mentioned indices. Here segregation, however, means a concentration of women and/or men in certain occupations, such that some occupations can be identified and defined as ‘female occupations’ and others as ‘male occupations’. Thus this approach involves a new definition of gendered occupations. ‘Female’ occupations are defined as those occupations with the highest ratios of women to men and which together account for the same total number of workers, as there are women in the labour force. The remaining occupations are symmetrically defined as ‘male’ occupations. The purpose of the new approach was to make it possible to measure segregation in a way which takes direct account of changes in women’s share of employment and the occupational composition of employment. The total number of employed can now be divided in:

- the number of women in female occupations
- the number of women in male occupations
- the number of men in female occupations
- the number of men in male occupations.

Blackburn et al. (1993) argues however, that segregation should be measured by statistical measures of association, and suggests a MM-measure (Marginal Match measure) as the well-

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<sup>15</sup> Blackburn et al, 1993.

known measures of association  $\phi$  or  $\tau_B$ . MM equals 0 in case of *complete equality*, where women's employment is distributed similarly to men's across occupations. MM equals 1 in the case of *complete dissimilarity*, where all women are employed in female occupations and all men are in male occupations.

"MM may be interpreted as a measure of the extent to which gender and gendered occupations vary together - how far female occupations are staffed by women and male occupations by men. This is precisely what is needed for the measurement of segregation, but only with matched marginals is the correlation measure completely satisfactory." (Blackburn and all., 1993, p.349). The argument is that segregation rather than to be thought of "as a quantity, which might be measured as so many 'segometers', it should be understood in terms of the strength of relationship. The stronger the relationship, the greater the degree of segregation." (Blackburn and all., 1993, pp.349-350).

Blackburn, Jarman and Siltanen argue that the MM-index is comparable across situations because it is dependent on women's share of employment and the occupational structure, which should be an advantage compared to the traditional indices.

### **II.2.3. Indicators currently used to evaluate gender segregation in the European employment strategy**

Among those indicators currently proposed by the EMCO indicators group to monitor gender equality, two indicators measure gender segregation<sup>16</sup>:

- EO3 = Index of gender segregation in occupations (the average national share of employment for women and men is applied to each occupation, the differences are added up to produce a total amount of gender imbalance). This figure is presented as a proportion of total employment. The data source is Labour Force Survey (LFS), ISCO classification of occupations (three digits), annual results available up to 2000.
- EO4 = Index of gender segregation in sectors (the average national share of employment for women and men is applied to each sector, the differences are added up to produce a total

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<sup>16</sup> EC, *Joint Employment Report 2000*, p.186.

amount of gender imbalance). This figure is presented as a proportion of total employment. The data source is the Labour Force Survey (LFS), NACE classification of sectors (two digits), annual results available up to 2000.

The case for measuring sectoral segregation is less strong than for occupational segregation: the NACE 2 digit classification is very broad and there is considerable evidence of occupational segregation within sectors. For these reasons the following analyses concentrate on occupational segregation only, but comparable arguments can be made with respect to sectoral segregation.

The EO3 and EO4 are IP-indexes. They have the advantage of the simplicity of calculation but at the same time the disadvantages and problems that have been pointed out in the presentation of the index. A change in the IP-index may be due to a change in dissimilarity or to a change in the proportion of women in employment – eventually to a combination of the two. The change in the IP-index should, however, also be linked changes in the occupational and sector structure in the economy.

It is a problem though, that segregation according to this index *increases for an increasing female share of employment*, and a major problem – a paradox, that *less dissimilarity combined with a higher proportion of women in employment may result in a higher measure of segregation by the IP-index*. Such a result may be considered by many to be counter-intuitive and there is a need, if using the IP index to identify the causes of any change in the index. This overview of the various measures suggests in fact that in order to make comparisons, there is thus a need to use other measures of segregation – or explore more reliable new measures.

## **II.3. Methodological issues**

### **II.3.1. Methodological problems with the use of indices**

The scale of women's employment as well as the structure of the labour market differs between the EU-countries. This means that if indices are used to measure gender segregation in the EU-that comparisons are being made across very different entities. We do not know if

decreasing segregation means that occupational opportunities are opening up for all women (or men) or if the changes can be attributed to generational change. Furthermore, patterns of segregation can move in different directions and the results, if measured by a single index, may show no change in segregation. Over recent years there is evidence that reductions in vertical segregation, as more educated women move into higher level jobs, have coincided with increasing horizontal segregation, as the female-dominance of some service sector areas increased (Rubery et al. 1999). These trends pull the indices in different directions, resulting in overall low estimates of net changes in segregation, even though the situation for both higher skilled and lower skilled women may be changing markedly.

This tendency for existing measures to obscure changes taking place in the labour market calls for new ways of analysis, where the development of the gender division of occupations is kept separated. Analyses of the importance of self-employment and of part-time employment in processes of segregation are also required.

Problems with the interpretation of the indices, including the IP adopted by the European Commission, have motivated researchers to seek ways of comparing segregation in different countries and over time that is capable of covering periods of deep change in labour market and occupational structures and a rapidly increasing presence of women. The objective is to try to find ways of isolating occupational segregation from the effects of other changes in the labour market. However, one of the barriers to developing such methods is in fact the classification system of occupations, as we describe below.

### **II.3.2. Classification and data problems**

These occupational classification systems tend to mirror gender inequalities in the labour market, with traditional male occupations in manufacturing industries specified in detail but female occupations in, for example, health and care aggregated into very broad categories, in practice encompassing a lot of different occupations. For international comparisons, the problem is intensified as which tasks or jobs are included in different occupational categories differs.

It is, therefore, essential to be aware of the fact that all indices and indicators are dependent on the classification of occupations and sectors, and that statistical classifications generally are rigid and

conservative (Rubery et al 1999, Blackburn et al 1993). New classifications tend only to be brought in when replacement has become absolutely essential. As the EU member states, despite efforts towards harmonisation, are still developing at different speeds and directions, the conservatism of the classification system means that the classification of occupations and sectors may be more satisfactory for some countries than for others.

We can provide an example of these problems by considering the case of the marginal matching indicator. This indicator, in common with the other indices, is strongly dependent on the classification of occupations. A minor change in classification can have a huge effect on the result. A new and alternative classification may divide one occupation, which was, for example, a weak female dominated into two: a strong female-dominated occupation and a strong male-dominated occupation. This would alter the 'cutting point' between female- and male-dominated occupations and give a very different figure for the MM-indicator. The differences in results between the new and the old classifications will of course be dependent on the size of the workforce in the occupations in question. This can as such be more critical for some EU-countries than for others, thereby distorting comparisons across the EU.

All indices and indicators, as we have already mentioned, are dependent on the scale of women's employment. A large-scale involvement of women in employment will generally mean a higher percentage of employment found in special service sectors (public as well as private) and perhaps a higher percentage employment in parts of industry, but not necessarily located in the same country. This means that the distribution of occupations and sectors will indirectly be dependent on and interact with the scale of women's employment.

It is evident from the mathematical formulae that the ID-index is dependent on the distribution of occupations and thus indirectly on the scale of women's employment. As the MSS-index and the IP-index are just modifications of the ID-index, they are also indirectly dependent on the scale of women's employment, even though they adjust for the female employment rate. The scale of women's employment also influences the MM-indicator directly by influencing and interacting with the distribution of occupations and thus influencing the cutting point between female and male dominated areas.

A comparison across EU countries of gender segregation will always suffer from the problem of finding a satisfactory classification of occupation and sectors which takes account of the

differences between the countries, including not only differences in occupational structure but also differences in the scale of women's employment. The problem is if an index can be improved to give a less classification-dependent comparison between EU-countries.

### **II.3.3 New methodology based on longitudinal occupational data**

As we mentioned in the introduction to this chapter, segregation should be regarded as a result of a multidimensional process. And as such, it is not possible to measure segregation with one single measure. We have to use different types of measures and methods and the segregation indices have to be combined with other types of indicators.

One approach that has been used by both Finnish and Swedish researchers is to take the gender composition of occupations as the starting point with the objective of studying the flows of occupations between different occupational categories. These can be defined as; totally male dominated, medium male dominated, mixed, medium female dominated and totally female dominated occupations. In the Finnish study, gender segregation in the labour market was studied over the period 1970-1990 (Kolehmainen 1997, 1999) The Swedish study covers this period and extends into 1990-1995 (Tyrkkö, Wesberg 2001). The categorisation makes it possible to study the directions of change and the movement of occupations, for example, towards feminisation, masculinisation, neutral desegregation, resegregation and integration.

Occupations were classified according to how they had moved between the categories, in total 25 different categories. Individual workers have not been studied longitudinally; instead occupations have been studied according to how they have moved between categories over time. Over the first twenty years period there seems to have been two different tendencies in the totally male and female dominated parts of the labour market. Segregation was strengthened in the female dominated parts, while the male part seemed to go through a process of decreasing segregation. During the second period 1990-1995 there was a tendency for intensified segregation in the male dominated parts of the labour market and desegregation in the female dominated parts.

In spite of the overall picture of stability in the segregation patterns, there have been substantial changes at the occupational level. Over one third (39 %, 97 occupations) of the 246 occupations belonged to a different category in 1990 than in 1970. Feminisation occurred in 76 occupations as the female proportions increased, and masculinisation in 21 occupations. The largest change was the decrease in the number of totally male dominated occupations. The number of mixed occupations increased, but the number of employed in that category remained low, about 10 percent of all employed.

Through a study like this, it is possible to analyse both the change in the gender composition of occupations and also changes over time in the number of women and men found in occupations classified in certain ways. It is possible to identify the particular group of occupations moving through feminisation to masculinisation or remaining unchanged and to analyse them in relation to the overall labour market development and economic changes.

#### **II.4 Results from the analysis of the segregation indices**

Now that we have identified the main issues relating to definitions and measures of segregation (see II.2), it is time to turn to the results of some statistical calculations, stressing both the outcomes and the problems that arise from the use of the different indices. The object is to show how segregation levels have developed in different member countries during 1995 to 2000, using calculations of the different indices. The calculations use different employment groups as a basis such as; all in employment, all employees, and all in full time employment. That means that we can specifically study the results of excluding the self-employed and part time workers from the calculations.

The indices show segregation in different ways. All indices can be criticised because they produce a measure of segregation that is influenced by elements that cannot in themselves be directly considered (see section II.2.1. about the ID, MSS and IP indices). Another common feature is that they are not easy to calculate and the analytical procedures involved is difficult to apply given the way employment are classified in different groups (see section II.2.2. about the MM index). Taking this into account, we have to ask the question if it is useful to construct a new index. According to the previous discussions our answer is no. It is probably better to use and decompose the existing indices but with a constant attention to the problems of interpretation and of comparison across time and space.

### *Differences between indices and trends over the period 1995-2000*

A simple comparison of the values and of the ranking of the EU countries that result from the calculation of the different segregation indices (ID, IP and WE<sup>17</sup>) deserves some general comments. These comments are based on the values of the different indices and ranks for countries during the period 1995- 2000. The ranking of the different EU countries in 2000 shows the extension of the diversity of the results obtained with the different indices. The ranking of countries according to the level of segregation differs between the WE index on the one side and on the other side the ID and the IP index (see Appendix Figure 1). If we rank the countries in 2000 according to the value of the IP and the ID index the list has only slight changes (in the top and bottom of the list we find the same countries; in the middle some changes occur but mainly just one place- France moving two and Ireland three places.

When using the WE index (as compared to the rank according to IP and ID indices) the ranking of the countries changes. Spain and Luxembourg are countries where the changes are profound. They appear in the bottom of the rank when the WE index is used instead of in the top when using the other two indices. Denmark and Sweden appear in the middle of the rank using the WE, while with the other two indices they are found at the bottom, with high segregation levels.

### *Relationship between the level of segregation and the female employment rate*

If we look at the relationships between segregation indices and women's overall employment rate (Appendix Figure 2) we find a strong upward relationship between women's employment rate and the value of the index for ID and IP but no such relationship for the MSS index.

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<sup>17</sup> Calculations referring to the MM index are not considered here. These are difficult to undertake using standard statistical techniques as interpolations within occupational categories are needed. Previous results (Rubery et al. 1999) have shown little difference in the indicated level of segregation and rankings between the MM index for European member states and the ID or the IP although the method could yield different results in other contexts.



### *Impact of removing part-time workers from the indices*

Comparisons using the ID and IP indices of levels and rankings between all in employment, all employees, all in FT employment and all FT employees also reveal important issues for the study of segregation.

There are major differences in level and rank for indices (see tables II.1 and II.2) based on those in full-time employment only compared to calculations including both full and part-time categories: particularly strong reductions in measured levels of segregation are found for Netherlands, UK and Germany, all high part-time countries; weak reductions or increases are visible for Italy, Greece, and Finland, all low part-time countries. For Spain and Portugal, being low part-time countries, their relative position in EU ranks sank dramatically compared to the ranking related to all in employment. There are also differences in the relative position of countries according to calculations comparing all employees with full-time employees. Belgium and Germany improve their relative position while Spain and Denmark worsen their positions. Greece and France are interesting cases as there are different results, according to whether the ID or the IP index is considered.

### *Impact of removing the self-employed or those in agricultural employment from the indices*

Taking out the self-employed from total employment also changed the relative position of the member states: Denmark, Ireland and the UK perform better on segregation terms when only employees are considered while Spain and Portugal have a worse performance when self-employed not are considered. Taking out the self-employed from the indices for those in full-time employment also changes the relative position of some of the Member-States: Ireland and Denmark improve their relative position while for Germany the position clearly deteriorates. However, it would not be appropriate to conclude that self employment is less segregated than direct employment as we know that, for example, women are less likely to be employers among the self employed and may in fact play a more subordinate role in family businesses.

Taking out the employed in agriculture (Appendix Table 1) contributes clearly to a worsening of the Portuguese situation in relative terms. The opposite development can be seen in Ireland

where the situation seems to improve. This contrast is interesting as the two countries have an important percentage of employment in agriculture.

*Relationship between absolute values of the indices and EU member state rankings.*

The absolute values of the indices and their relationship to the relative position of the countries in the European ranking also deserve to be noted. If we take the IP index (which is the indicator used by the EU as previously referred) as an example, the amplitude of the variation of the index between the 15 Member-States is rather small. The absolute value of this index is the smallest of the three under analysis, 25.17% for the EU for all in employment in year 2000. In fact, the difference between the best performance (Greece: 21.28%) and the worst performance (Finland: 30.06%) is not that high. Also the values of the IP index show that quite similar differences on the value of the index can imply rather different places in the ranking of the countries. For example a difference of 3.3 percentage points between Italy and Spain for year 2000 results in ranks for these countries, respectively, of second and third, while a difference of 3.12 percentage points between Spain and Denmark results in ranks for these countries, respectively of third and thirteenth.

It is also the case that relatively small changes in the indices can correspond, according to the group of workers to which it is being applied, to different consequences for the relative position of the member state. For example, if we consider the differences in the IP index 2000 applied to total employment and to all in full-time employment, we find that in Spain a decrease of 1.28 percentage points went together with a deterioration in ranking of four places. However, for Italy, a decrease of 0.92 percentage points went together with the maintenance of second place in the ranking. In Portugal an increase of 0.24 percentage points in the index went together with a strong deterioration in its relative place in the EU ranking (from 6<sup>th</sup> to 14<sup>th</sup> place).

**Table II.1. IP Index (various measures) by Member State for 2000**

	All in Employment		All in FT Employment		All Employees		All FT Employees		All in Employment exc. Agricultural Occupations	
	%	R	%	R	%	R	%	R	%	R
<b>Austria</b>	27.26%	12	24.80%	11	29.83%	14	27.02%	12	28.54%	12
<b>Belgium</b>	26.79%	8	24.07%	9	28.57%	11	24.07%	4	26.89%	8
<b>Germany</b>	27.20%	11	23.33%	6	28.41%	10	24.90%	6	27.53%	9
<b>Denmark</b>	27.97%	13	25.91%	12	28.19%	8	26.57%	11	28.14%	11
<b>Spain</b>	24.85%	3	23.57%	7	27.23%	7	25.79%	10	25.70%	3
<b>Finland</b>	30.06%	15	29.90%	15	30.82%	15	30.94%	15	30.98%	15
<b>France</b>	27.03%	10	24.27%	10	28.32%	9	25.78%	9	27.56%	10
<b>Greece</b>	21.28%	1	20.93%	3	26.05%	2	25.71%	8	24.14%	2
<b>Ireland</b>	26.96%	9	24.06%	8	27.00%	5	25.01%	7	26.88%	7
<b>Italy</b>	21.55%	2	20.63%	2	23.75%	1	22.87%	3	22.30%	1
<b>Luxembourg</b>	25.71%	5	23.17%	5	27.21%	6	24.74%	5	25.88%	5
<b>Netherlands</b>	25.51%	4	15.06%	1	26.43%	3	15.97%	1	25.79%	4
<b>Portugal</b>	26.45%	6	26.69%	14	29.20%	12	28.95%	14	28.55%	13
<b>Sweden</b>	29.04%	14	26.24%	13	29.36%	13	27.21%	13	29.16%	14
<b>UK</b>	26.73%	7	21.84%	4	26.99%	4	22.47%	2	26.75%	6
<b>EU</b>	25.17%		21.96%		26.79%		23.85%		25.88%	

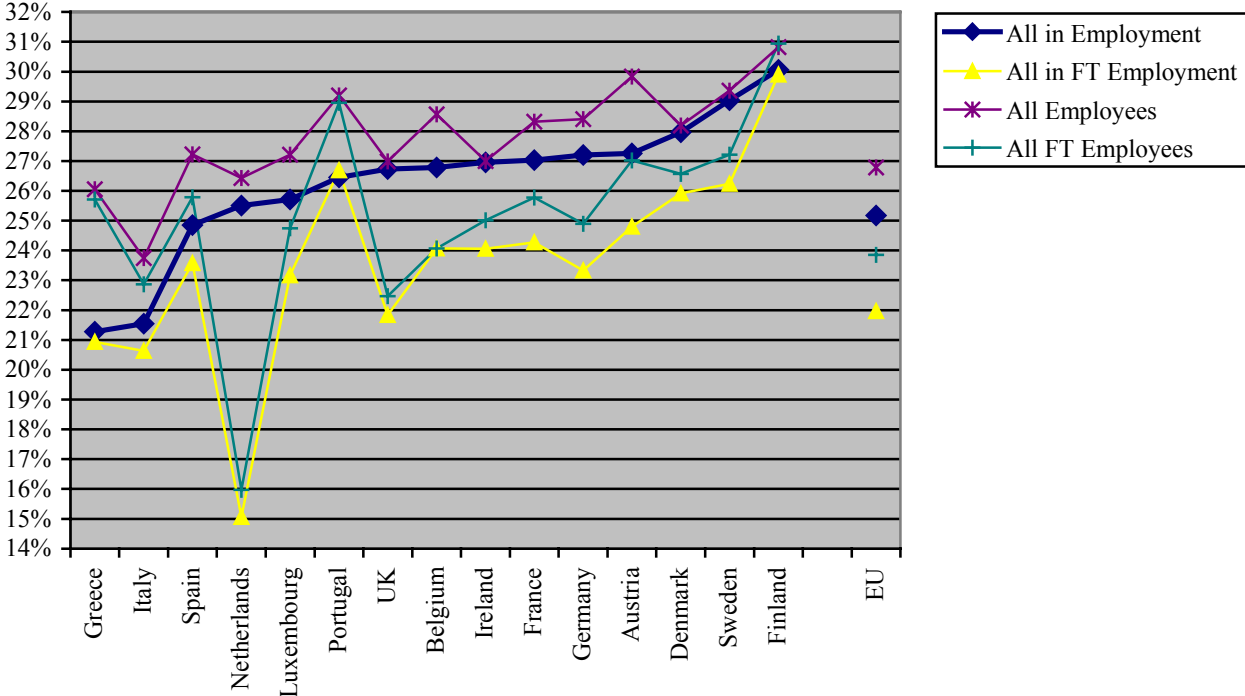
Source: ELFS 2000 (own calculations)

**Table II.2. ID Index (various measures) by Member State for 2000**

	All in Employment		All in FT Employment		All Employees		All FT Employees		All in Employment exc. Agricultural Occupations	
	%	R	%	R	%	R	%	R	%	R
<b>Austria</b>	55.31%	11	54.14%	10	60.39%	14	59.01%	14	57.95%	13
<b>Belgium</b>	54.88%	9	54.52%	11	58.14%	11	54.52%	7	54.95%	8
<b>Germany</b>	55.25%	10	52.19%	6	57.33%	10	54.83%	8	55.89%	10
<b>Denmark</b>	56.19%	13	54.66%	12	56.43%	6	55.27%	9	56.43%	11
<b>Spain</b>	53.12%	4	52.78%	8	57.30%	9	56.62%	12	54.55%	6
<b>Finland</b>	60.29%	15	60.43%	15	61.65%	15	62.06%	15	62.03%	15
<b>France</b>	54.64%	8	51.92%	5	56.91%	8	54.39%	6	55.54%	9
<b>Greece</b>	45.28%	1	45.19%	2	54.38%	4	54.23%	5	51.93%	2
<b>Ireland</b>	55.83%	12	53.65%	9	54.39%	5	52.64%	4	54.79%	7
<b>Italy</b>	46.32%	2	46.39%	3	49.47%	1	49.40%	3	47.78%	1
<b>Luxembourg</b>	53.84%	6	52.50%	7	56.56%	7	55.61%	10	53.91%	4
<b>Netherlands</b>	52.13%	3	44.75%	1	53.74%	2	46.77%	1	52.63%	3
<b>Portugal</b>	53.41%	5	54.69%	13	58.81%	13	58.76%	13	57.87%	12
<b>Sweden</b>	58.19%	14	55.04%	14	58.73%	12	56.14%	11	58.38%	14
<b>UK</b>	54.03%	7	49.28%	4	54.18%	3	49.24%	2	54.00%	5
<b>EU</b>	51.47%		48.62%		54.20%		51.69%		52.80%	

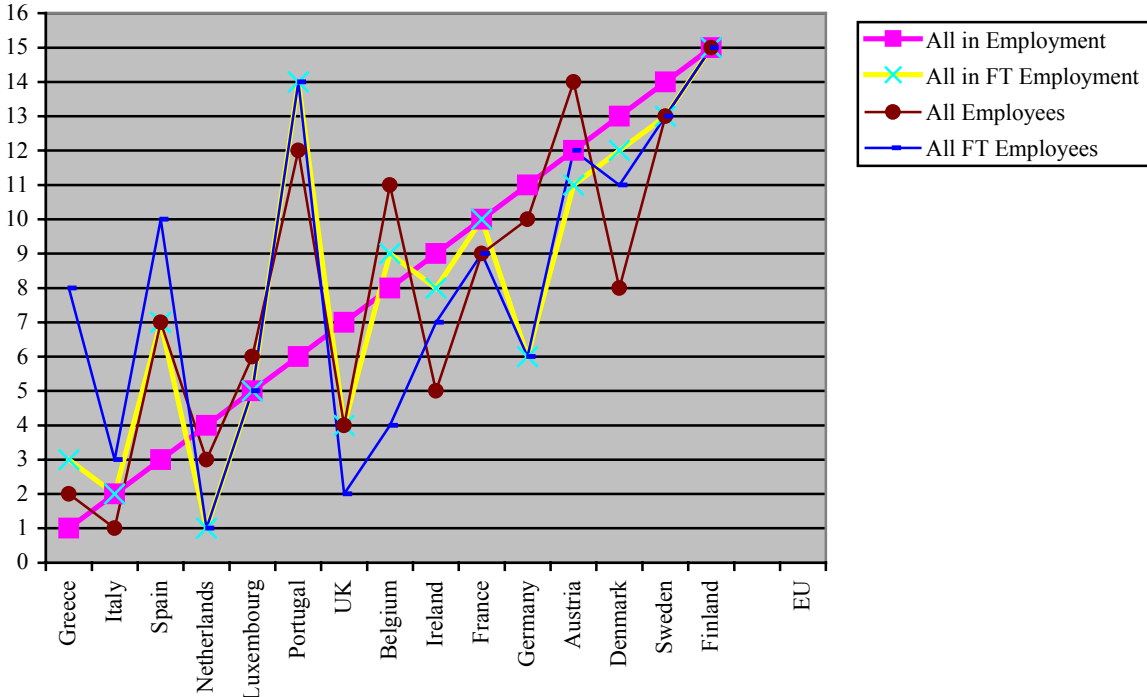
Source: ELFS 2000 (own calculations)

**Figure II.1. The IP-index for 2000.**



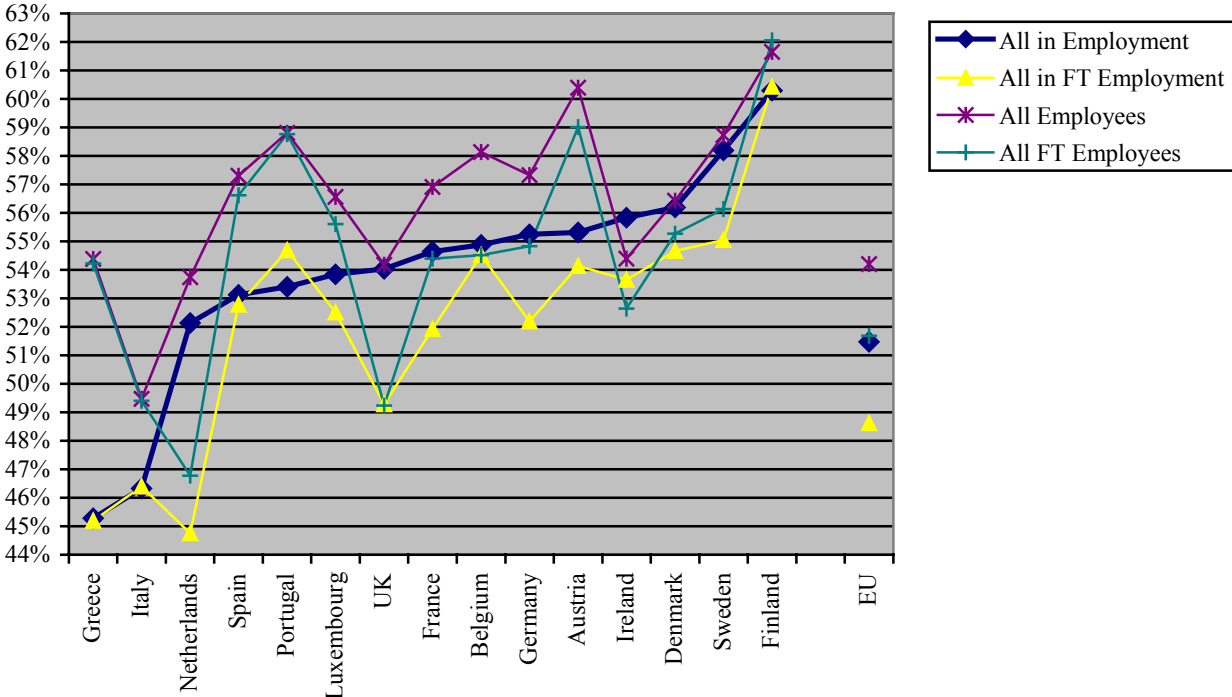
Source: ELFS 2000 (own calculations)

**Figure II.2. The IP- rank for 2000.**



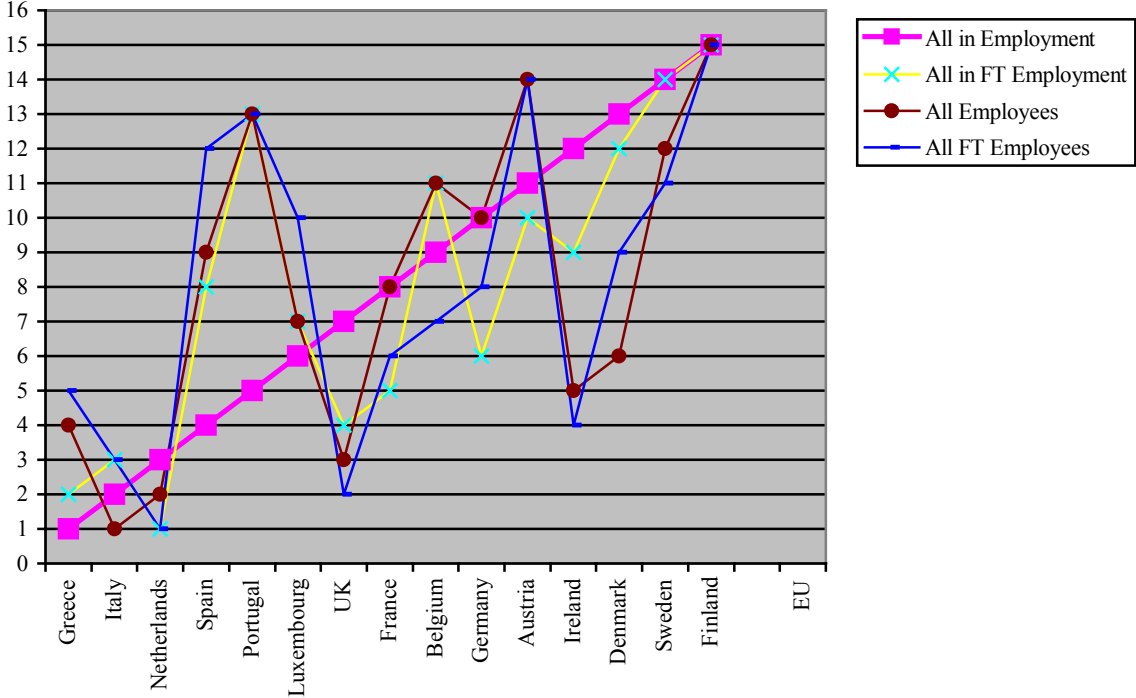
Source: ELFS 2000 (own calculations)

**Figure II.3. The ID-index for 2000.**



Source: ELFS 2000 (own calculations)

**Figure II.4. The ID - rank for 2000.**



Source: ELFS 2000 (own calculations)

### *Factors associated with changes in the value of indices*

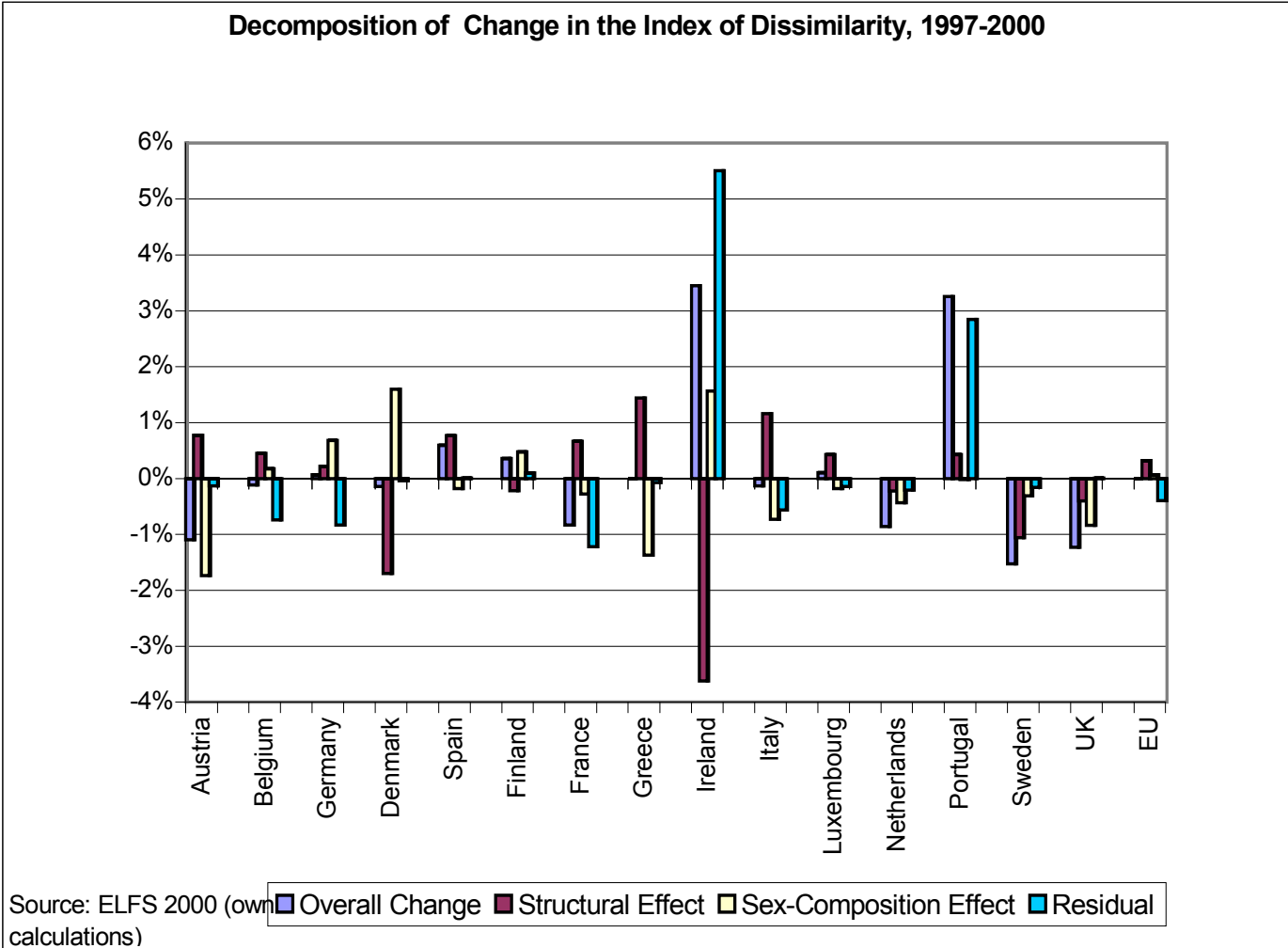
Given the diversities that have been noticed, it is clear that all analysis must be undertaken with care and that it is important to go behind the relative values (and the associated ranks) of each index. It appears of utmost importance to make an analysis not only referring to one year but to the (more or less) recent trend of the index but also to the elements that stand behind the tendency. In more concrete terms, it is important to understand if the observed changes refer essentially to changes in the occupational structure or in the share of men and women in employment.

The decomposition of changes of the ID index adds important elements to the analysis of the changes on grounds of segregation within EU countries. The overall level of segregation decreased in the EU between 1997 and 2000 but this development was caused both by changes in the occupational structure and by changes in the female share of occupations. Still, it is important to stress that this last effect has been the stronger. At a national level these dynamics appear to be differentiated. In some countries the tendency of the EU is also the one that prevails at the national level. That is the case of Belgium, France Netherlands and the UK. In Sweden the effect of changes in the structure of occupations has been stronger than changes in female shares within occupations. Ireland and Portugal had a rather different evolution where the ID increased between 1997 and 2000 by the joint effect of structure and share changes both acting to increase the index. In Ireland this was due primarily to the share effect and in Portugal primarily to the effect of occupational structure. Austria and Italy had a decrease in the index associated with the changes in the share of occupations (Greece, had a similar negative share effect but kept a constant index value) as the occupational structure effect acted in the sense of increasing segregation. Spain and Luxembourg had a similar divergent evolution of the occupational and share effects but segregation increased as there was a stronger positive occupational effect than a negative share effect. Denmark and Finland had a share effect which contributed by increasing segregation but an occupational effect acting to reduce segregation. The final outcome was favourable in Denmark (decrease of segregation) but not in Finland where the ID-index increased.

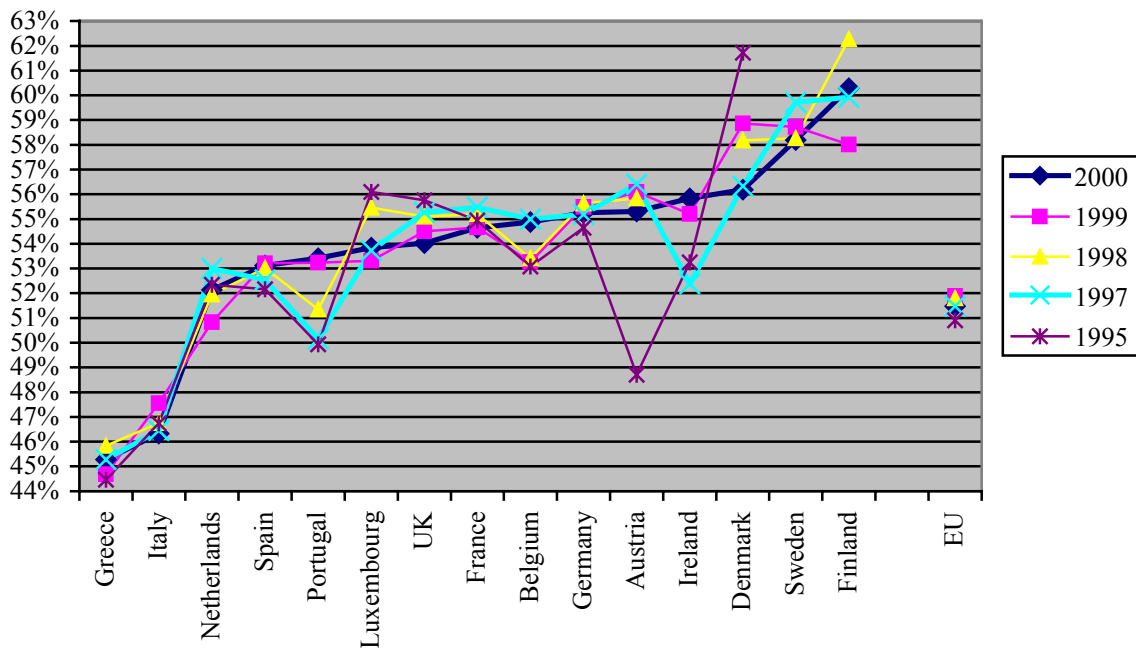
This description underlines the importance of understanding how segregation is developing, and the importance of knowing the variables that are mainly responsible for that evolution.

The data also indicate that a single index is unable to make sufficient differentiation between countries as the variation between countries is almost at the same level as variation within a country over a small period of years (1997-2000).

**Figure II.5. Decomposition of Overall Change in the ID (97-2000)** (Change due to Structure, Change due to Share Effects, Residual)

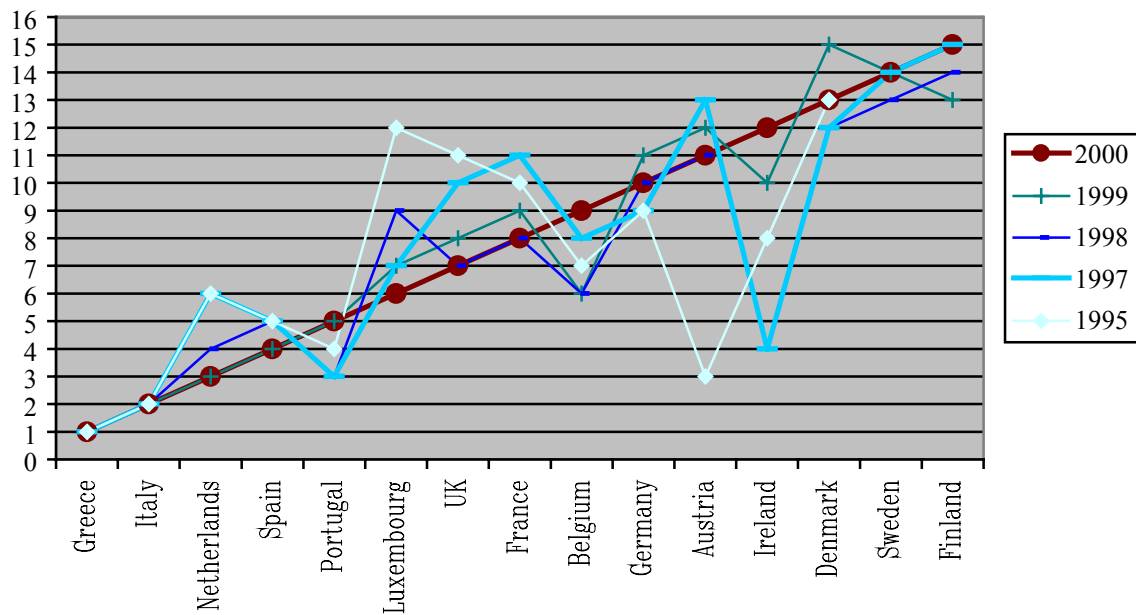


**Figure II.6. ID index for all in employment in 1995,1997,1998,1999 and 2000 for EU-countries ordered by the ID-index in 2000.**



Source: ELFS 2000 (own calculations)

**Figure II.7. Rank for ID index all in employment in for 1995,1997,1998,1999 and 2000 for EU-countries ordered by the rank of the ID-index in 2000.**



Source: ELFS 2000 (own calculations)



## **II.5 Key issues in the analysis of segregation**

From our comparisons of segregation across time and space, and using different statistical indicators and different definitions of the employed population, we can now suggest some of the important divisions in labour markets that need to be taken into account when comparing segregation levels.

### **II.5.1 Occupational segregation and the female employment rate**

The likelihood of a positive relationship between the level of female employment and the level of segregation should be recognised. Appendix figure 2 indicated the existence of a linear relationship for current data and in 1995 a simple linear regression analysis showed a correlation coefficient of 0.84 for the ID-index of segregation and the female employment rate (Rubery et al. 2000). Denmark, Finland and Sweden's high female employment rates are thus combined with high gender segregation while Greece and Italy's low employment rates are combined with low gender segregation. As we have already noted, the Council of Ministers recommended on the basis of this evidence that Denmark, Sweden and Finland take action to reduce gender segregation in contradiction to the 1999 Joint Employment Report which states that *'a segregated labour market with high employment rate should be considered preferable to one with less segregation but low employment rate for women'* (JER 1999:70). The recommendation to Denmark, Sweden and Finland appears to be based on the calculation of an index (or indicator) and not on the analysis of problems for equality in these countries' labour markets.

### **II.5.2. Segregation indices as measures of long rather than short term change**

Taking a long-term perspective, we find that gender segregation, measured for example with the ID index, has shown a decrease (Rubery et al 1999, Jonung 1997, 1999, Gonäs, Spånt 1997). However year to year changes in segregation indices should not be used to monitor progress in gender equality, at least in part because the causes of changes in indices include changes in occupational structure and changes in the overall share of women in the labour force, and not just changes in gender shares within occupations. The focus on the long term

does not mean an acceptance of the slow pace of change; instead the issue is how to increase the speed of change and support integrative tendencies.

### **II.5.3 Segregation and part-time work**

The growth of part-time work is often cited as a factor that has maintained or increased gender segregation. Not only do part-time jobs tend to be concentrated in female-dominated segments but the increased importance of part-time jobs both tends to deter the entry of men and increase measures of segregation, if part-time jobs are treated as directly equivalent to a full-time job. On that basis the increase in female shares in occupations may be greater than their share of the volume of employment, and if this occurs particularly in female-dominated segments, the gender segregation index will increase. These effects will be less strong if part-time jobs are spread through the occupational structure and are not overrepresented in high female occupations. Figures II.1 (IP index) and II.2 (ID index) show how the indices of segregation tend to decrease once part-time workers are excluded from the calculations. The downward turn is particularly notable in countries with a large proportion of part-time workers as in UK, Netherlands and Germany. The indices of segregation used for monitoring gender equality under the European employment strategy should be calculated with and without part-time workers, in order to provide more information on the role of flexibility in shaping gender patterns of segregation in the labour market.

### **II.5.4. Segregation and the division between employees and the self-employed**

When excluding the self employed from the calculations there are almost as great changes in the IP and ID indices changes as when part timers are excluded from all in employment (Figure II.1, II.2). However the pattern of change varies by member state. These differences arise both from differences in the extent to which the occupational distribution among self-employed women and men diverge from that of employees and the relative size of the self-employed segment. These results might be related in part to the importance of the agricultural sector in the economy as well as to the role of family businesses in services. However, as we have noted above, the main division among the self employed by gender may not be captured by occupational differences but to the shares who are employers, rather than own account self employed, or gender divisions in who assumes the role of 'boss' within a family business

### **II.5.5 Sectoral distributions and segregation – agriculture as an example**

When agriculture is excluded from the analysis, the IP and ID values increased slightly for EU as a whole as well as for most member countries (Appendix Table 1). The increase is not very large on an overall level but is more significant for individual member states. Agriculture is one sector where there are relatively few defined occupational categories. Where there are fairly equal proportions of men and women involved in agriculture the effect of including agricultural employment is likely to be to reduce segregation levels. However, where agriculture is a male-dominated sector, the impact of inclusion may be to increase segregation. Portugal, Greece and Finland, for example, show increased levels of segregation when agricultural occupations are excluded from the analysis. Ireland, shows a decrease, reflecting the high importance of agriculture in this country but also the predominance of men (Rubery and Fagan 1993). The example of agriculture indicates the sensitivity of indices to sectoral composition, to differences in the gender division of labour within sectors across Europe and the impact of occupational classification systems.

### **II.5.6. Generational differences and segregation**

Age or rather generational developments should be studied in order to track the effects of changing educational levels, changing aspirations and also changing attitudes of employers towards new entrants. However, the lack of long-term historical data on the patterns of occupational segregation by age creates some practical difficulties. This is because there are both lifecycle as well as generational factors in the allocation of workers to jobs. Younger people may show lower levels of occupational segregation than older groups but this could have been true also in the past. It has certainly been a long standing feature of gender inequalities in earnings to increase with age, so a greater equality among young people today cannot really tell us what will happen when today's younger cohort becomes middle-aged or enters older age brackets. Alongside lifecycle patterns there is clear evidence, however, of generational change: the average educational level of younger women (aged 25-34) is higher than that of younger men in many countries (Rubery et al 1999 p 88). Looking at older age groups (age 55-64), we find the situation is reversed.

The continuation of gender segregation can of course be linked to differences in women and men's choice of education and career path (NAP 1998, Sjørup and Henningsen 1997, Emerek and Ipsen 1997). Policy intervention at a young age is therefore potentially crucial. However, some countries, such as Denmark have tried, but with little success to pilot women's choice of education into male-dominated areas by reducing the number of educational places in areas with special appeal to women, and by establishing special education recruitment schemes for women into male dominated trades (Holt 1987). The male-trade strategy 'died' in the late 1980s in Denmark, though there has since been some success in training unemployed women into traditional male-dominated occupations and activating men into traditional female occupations (Petersen 1997). The Danish labour market remains, however, still highly gender segregated.

There have been major changes in the shares of women entering some previous traditionally male education areas, such as economics and medicine, and these examples of desegregation seem to be linked to processes of desegregation on the labour market. Women do not, however, automatically adopt male-roles within these professions; they create their own roles as well as they chose certain specialities (Henningsen and Sjørup, 1997). The problem is to know how to intervene in this process; whether one first needs to change the employment opportunities for women or first to change their educational choices.

### **II.5.7. Vertical segregation**

So far our analyses have concentrated on segregation measures which include both vertical and horizontal dimensions to segregation. There has been a much more limited development of measures of vertical segregation. If we use the one-digit ISCO classification which divides the occupational structure into ten broad areas we can look at female representation in higher level jobs. The ISCO classification is constructed to divide occupations both in a vertical and a horizontal dimension. To group 1 in the ISCO classification belong occupations like legislators, senior officials and managers, all in very top positions in organisations. To group 2 belong professionals from different areas. It is a much more diverse group, where for example in the group teaching professionals both university professors and primary and pre-primary teachers are included on the 1-digit level (although whether primary or pre-primary teachers are considered professionals or associate professionals does vary by member state).

On this level it becomes very difficult to use the group as it consists of occupations with varying educational attainments. Group 3 includes technicians and associate professionals. That is also a very diverse group when it comes to educational levels and to job tasks.

Table II.3 shows the share of women in higher level jobs, measured as the share of all women in employment having an occupation in ISCO 1-2. For EU as a total this share is 19.58 percent. Of the member countries the highest share is found in Belgium with 32.10 percent and the lowest in Portugal with 12.77 percent. Ireland, Finland and UK have between 28-29 percent of women in ISCO 1-2. Germany, France and Denmark are found at the other end of the distribution with female shares between 14-15 percent. The reasons why we find these large differences involve a number of factors, including different approaches to the grading and classification of key jobs such as teachers and nurses (Rubery et al. 1999), differences in the division of labour within organisations between managers and other workers, differences in the structure of the economy (for example between the public and private sectors) as well as differences in gender relations and equal opportunities.

One example can be given by using the corporate managers ISCO 120, where women's share of all employed for EU is 17,1 percent for 2000. In five of the member countries the female share is 10,0 percent and under, as in UK, Sweden, Luxembourg, Ireland and Greece. There are very few individuals in this group in some countries, so the material has to be treated carefully. For three countries the female share is 20 percent and over- Austria, Netherlands and Italy. The overall impression is of a male dominated occupation, but where the national variations only can be explained by using a more detailed analysis. Why the female share of corporate managers in UK is only 7.5 percent in 2000 has to be explained by methods other than statistical analysis.

**Table II.3: Share of Women in Higher Level Jobs (as share of all women in employment)**

	2000	Rank	1999	Rank	1998	Rank	1997	Rank	1995	Rank
<b>Austria</b>	16.5%	11	16.0%	11	16.0%	10	15.3%	11	13.2%	12
<b>Belgium</b>	32.1%	1	33.5%	1	33.5%	1	32.9%	1	32.0%	1
<b>Germany</b>	14.5%	14	14.6%	13	14.6%	12	14.2%	14	13.4%	11
<b>Denmark</b>	15.4%	12	14.4%	14	13.9%	13	14.9%	12	12.9%	13
<b>Spain</b>	22.1%	6	22.7%	6	23.9%	5	23.8%	5	22.1%	4
<b>Finland</b>	28.4%	3	27.8%	3	24.9%	3	26.1%	4	:	:
<b>France</b>	14.9%	13	14.9%	12	15.0%	11	14.7%	13	15.1%	9
<b>Greece</b>	21.9%	7	21.9%	7	23.4%	6	21.2%	7	20.6%	5
<b>Ireland</b>	29.1%	2	29.0%	2	:	:	28.7%	2	29.0%	2
<b>Italy</b>	16.8%	10	17.5%	10	17.3%	9	16.2%	10	16.0%	8
<b>Luxembourg</b>	19.4%	9	21.1%	8	17.9%	8	20.1%	8	16.9%	7
<b>Netherlands</b>	24.3%	5	25.3%	5	24.4%	4	23.4%	6	20.3%	6
<b>Portugal</b>	12.8%	15	13.0%	15	12.5%	14	13.2%	15	14.3%	10
<b>Sweden</b>	20.8%	8	19.7%	9	19.5%	7	19.8%	9	:	:
<b>UK</b>	27.9%	4	27.5%	4	26.9%	2	27.0%	3	26.7%	3
<b>EU</b>	19.6%		19.7%		19.4%		19.2%		18.4%	

Note: Higher Level defined as ISCO 1-2

1998 - No Data for Ireland; 1995 - No Data for Sweden and Finland

Source:ELFS 2000 (own calculations)

As can be seen in table II.4 and II.5, the public sector plays a different role for women and men all over EU. The gender gap in the concentration of employees in public sector is high in countries with a high female employment rate. In countries with a high proportion of women in the public sector, women also tend to belong to the professional groups in this sector and occupy leading positions. Countries which had a low share of women among corporate managers, like UK, do not necessarily have an overall low share of women in ISCO 1-2 (the UK overall share is 27.9 percent compared to the EU as a whole of 19.6). The low share of women as corporate managers may be compensated by women taking on jobs at higher levels in other sectors of the economy. One hypothesis could be that it is easier for a woman to have a leading position and combine work and family in a public sector organisation where there already is a high proportion of women, than in a private corporation. But that is an hypothesis that has to be tested. In general there is a need to pay more attention to processes of vertical segregation and to develop more satisfactory ways of looking at changes over time and differences across countries.

**Table II.4: Concentration of employees in the public sector, 1997-2000**

	1997		1998		1999		2000	
	All	PT	All	PT	All	PT	All	PT
<i>% women's employment</i>								
<b>Austria</b>	33.7	32.5	34.6	31.3	33.7	31.4	34.6	32.3
<b>Belgium</b>	49.6	56.7	49.3	56.8	49.6	57.5	49.5	57.0
<b>Germany</b>	39.9	39.3	40.4	39.3	40.4	39.5	40.2	40.1
<b>Denmark</b>	53.0	58.8	51.6	57.2	51.4	55.4	52.0	55.4
<b>Spain</b>	33.1	25.4	32.9	24.9	32.4	23.9	31.3	23.3
<b>Finland</b>	49.0	42.5	49.9	40.8	47.7	38.2	48.1	38.2
<b>France</b>	43.8	45.4	43.7	44.5	43.5	44.2	43.9	44.9
<b>Greece</b>	27.4	21.0	28.2	20.7	28.4	23.9	28.2	23.7
<b>Ireland</b>	40.9	46.7	35.6	36.6	36.1	36.7	36.2	36.9
<b>Italy</b>	36.2	24.3	37.9	28.0	37.8	29.1	37.8	29.1
<b>Luxembourg</b>	40.1	42.4	42.0	47.2	44.3	44.6	43.0	45.7
<b>Netherlands</b>	48.1	51.6	46.2	50.3	46.8	51.0	46.9	51.0
<b>Portugal</b>	32.0	18.2	26.1	11.4	27.6	13.7	26.8	10.6
<b>Sweden</b>	56.9	61.7	56.6	62.4	57.1	62.6	56.3	62.1
<b>UK</b>	43.7	44.8	43.9	46.0	44.1	46.1	45.0	46.3
<b>EU 15</b>	<b>41.1</b>	<b>42.7</b>	<b>41.1</b>	<b>42.5</b>	<b>41.1</b>	<b>42.5</b>	<b>41.2</b>	<b>42.7</b>
<i>% men's employment</i>								
<b>Austria</b>	17.9	31.5	17.6	28.4	17.2	25.8	16.9	21.5
<b>Belgium</b>	23.1	34.2	22.7	31.3	23.3	39.1	23.4	40.5
<b>Germany</b>	19.9	31.2	19.9	31.4	19.8	31.5	19.9	31.3
<b>Denmark</b>	20.1	30.1	19.9	29.1	20.2	32.5	19.9	27.7
<b>Spain</b>	15.4	26.2	15.2	29.1	15.1	25.0	15.3	28.3
<b>Finland</b>	16.4	21.6	15.2	17.5	16.3	24.5	15.6	21.7
<b>France</b>	21.9	40.7	22.3	39.5	21.8	40.1	21.5	39.5
<b>Greece</b>	17.1	11.4	17.2	14.3	17.5	19.9	17.4	15.9
<b>Ireland</b>	16.9	31.5	15.2	22.7	14.7	19.9	14.5	20.3
<b>Italy</b>	19.1	24.2	20.4	26.9	20.1	29.8	19.8	30.4
<b>Luxembourg</b>	24.8	62.2	25.6	35.9	24.7	30.1	26.5	47.1
<b>Netherlands</b>	22.9	28.3	22.2	28.9	22.9	29.8	21.9	29.6
<b>Portugal</b>	15.0	9.6	13.2	10.5	14.4	9.9	14.6	9.3
<b>Sweden</b>	19.5	36.3	19.2	29.2	18.7	30.8	19.1	26.8
<b>UK</b>	18.3	25.4	18.5	26.8	19.0	27.3	19.1	26.4
<b>EU 15</b>	<b>19.2</b>	<b>29.0</b>	<b>19.4</b>	<b>29.1</b>	<b>19.4</b>	<b>29.8</b>	<b>19.3</b>	<b>29.3</b>

Note: public sector employees are defined as employees who work in the following sectors: public administration, defence and compulsory social security; education; health and social work ; other community, social and personal service activities; extra-territorial organisations and bodies (NACE REV 1cats L,M,N,O and Q)

Source: European Labour Force Survey 2000 (own calculations)

**Table II.5 : Absolute Gender Gap in the concentration of employees in the public sector, 1997-2000 (All employees) vs. Female Employment Rates (working age)**

	Absolute Gender Gaps (p.p)				Employment Rates (%)			
	1997	1998	1999	2000	1997	1998	1999	2000
<b>Austria</b>	15.9	17.0	16.5	17.6	58.5	59.0	59.7	59.6
<b>Belgium</b>	26.4	26.6	26.3	26.2	46.7	47.5	50.2	51.9
<b>Germany</b>	20.0	20.5	20.6	20.3	55.2	55.6	57.0	57.8
<b>Denmark</b>	32.9	31.8	31.2	32.1	69.4	70.3	71.6	72.1
<b>Spain</b>	17.7	17.7	17.3	16.0	33.5	34.8	37.3	40.3
<b>Finland</b>	32.5	34.7	31.3	32.5	59.2	60.5	64.6	65.2
<b>France</b>	21.9	21.3	21.6	22.4	52.1	52.9	53.5	54.8
<b>Greece</b>	10.3	11.0	11.0	10.8	39.1	40.3	40.7	41.3
<b>Ireland</b>	24.0	20.4	21.4	21.7	44.7	48.2	51.4	53.2
<b>Italy</b>	17.1	17.6	17.7	18.0	36.2	37.1	38.1	39.3
<b>Luxembourg</b>	15.3	16.4	19.6	16.5	45.7	45.7	48.9	50.4
<b>Netherlands</b>	25.2	23.9	23.9	25.1	56.9	58.9	61.3	63.4
<b>Portugal</b>	17.0	12.9	13.2	12.2	55.5	58.3	59.6	60.4
<b>Sweden</b>	37.4	37.5	38.4	37.2	66.9	66.4	69.0	69.7
<b>UK</b>	25.5	25.4	25.1	25.9	63.0	63.2	63.9	64.5
<b>EU 15</b>	21.9	21.8	21.7	21.9	50.4	51.2	52.6	53.8

Note: public sector employees are defined as employees who work in the following sectors: public administration, defence and compulsory social security; education; health and social work ; other community, social and personal service activities; extra-territorial organisations and bodies (NACE REV 1cats L,M,N,O and Q)

Source: European Labour Force Survey 2000 (own calculations)

### **II.5.8. Gender segregation in unpaid work**

One of the important results from a benchmarking study (Plantenga, Hansen 1999, Gonäs 1999) undertaken by the expert group on gender and employment was that the largest gender differences were found in the gender division of unpaid work. There is therefore a need to consider gender segregation in this area of work alongside gender segregation in paid work.

### **II.5.9. Stability and change -the north – south divide**

It is the Northern member states, specifically Finland and Sweden that have repeatedly been asked by the Commission through the employment guidelines to take actions against the gender segregation in the labour market. It is among the southern countries where the segregation levels are lowest, such as Greece, Italy, and Spain. There is some evidence of a convergence in segregation levels for some Southern/Northern countries: for example there is a clear upward shift of the segregation levels in some low segregation countries such as Portugal while Denmark, a high segregation country, is moving towards less segregation. However to regard this as a process of convergence may be inappropriate: it is possible to have the same level of segregation as measured by indices while experiencing very different processes of employment restructuring and very different patterns of gender relations. Thus



any evidence of convergence in segregation indices must be investigated with respect to the causes of the convergence which may vary between member states.

Regional differences should also be considered, particularly in member states such as Italy or Germany where there are clear differences in the position of women between Northern and Southern Italy and East and West Germany. Regional analysis can also help to clarify generational changes. In a regional analysis (NUTS II –level) of activity rates for women and men in Europe the gender differences for young (age 15-24) women and men were not so profound as for middle aged (age 25-54) or elderly (age 55-) women and men (Gonäs 1999). This suggests a trend towards less regional differentiation among younger age groups. How far these smaller differences in employment rates will be manifest in less marked patterns of segregation is yet to become clear. Both generational and regional differences and their interactions have to be analysed further to understand changes in the processes of gender segregation and gender integration in the labour market.

## **II.6. Recommendations with respect to segregation indicators**

- The problems of measuring segregation using indices lie primarily in the use of a single measure for a complex process. It is therefore recommended that current indices are retained but the trends are interpreted through use of decomposition techniques and with attention to their shortcomings, particularly for comparisons between different societies.
- The indices should be interpreted as indicators of change over a relatively long time period, and should not be used as indicators of short term trends in gender equality.
- New and appropriate tools for indicating vertical segregation need to be developed.
- The structure of the labour market, numbers of hours worked and type of working contract all contribute to the explanations of the degree of gender segregation. Segregation indices should be calculated including and excluding part-time workers and including and excluding the self-employed.
- Attention should be paid to the adequacy of the occupational classification systems.
- There needs to be more awareness that segregation levels are being compared across very different entities, as the scale of women's employment differs between countries, as well as the structure of the labour markets
- Analyses by age and educational level are needed to identify potential future trends.

- Segregation indices need to be combined with other types of indicators. An analysis of flows in the gender composition of occupations, for example between totally male dominated, medium male dominated, mixed, medium female dominated and totally female dominated occupations, could provide a useful complementary measure.

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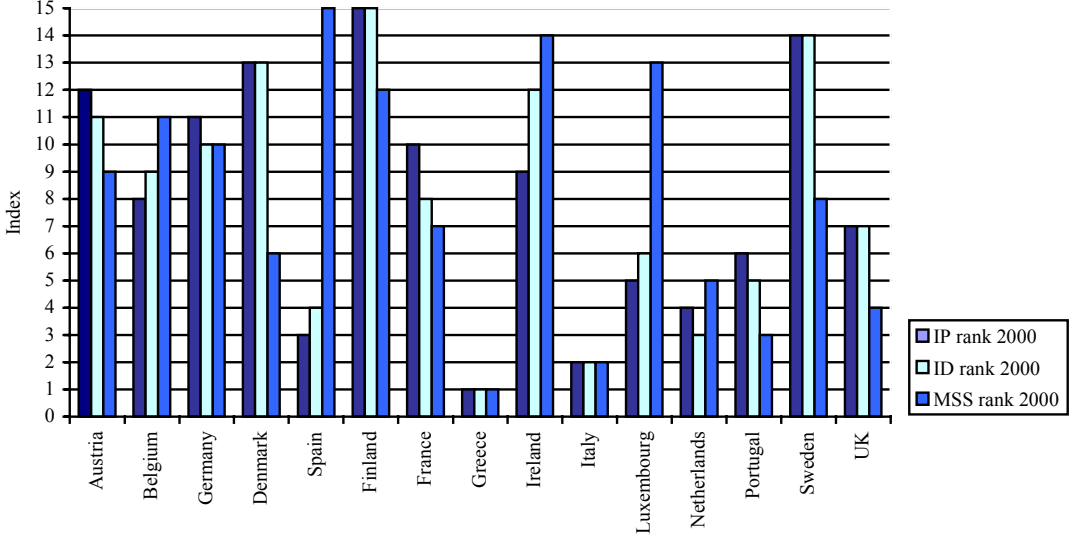
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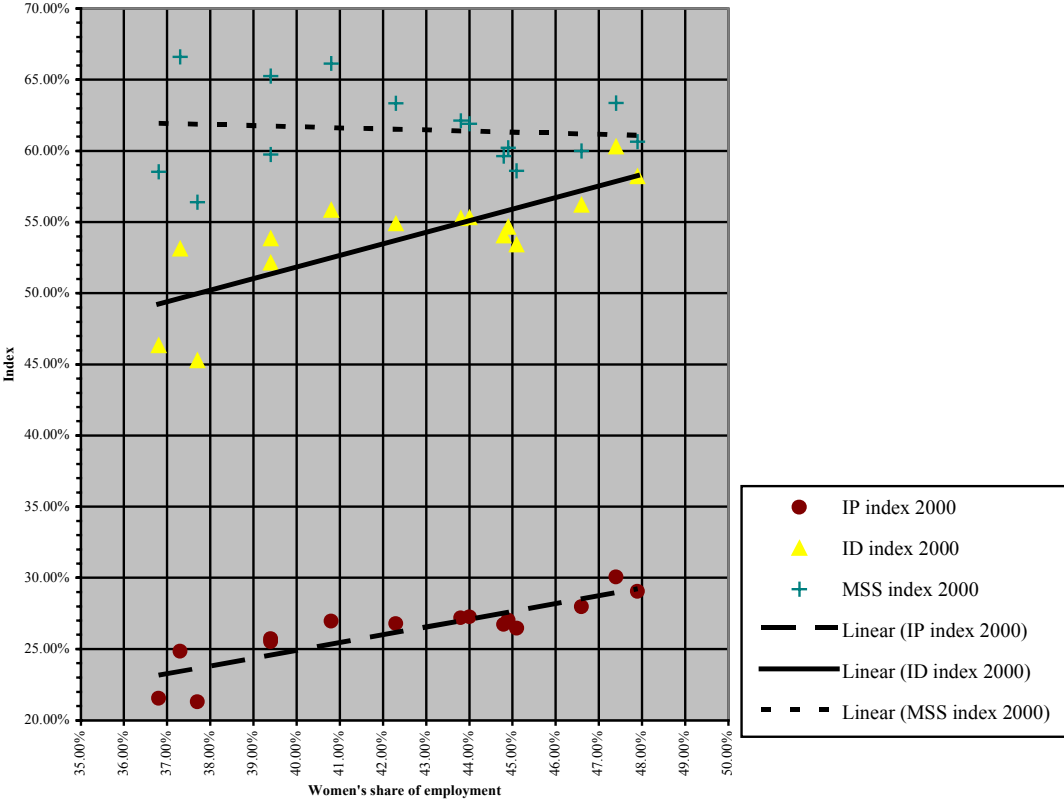
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**Appendix Figure II.1: Comparisons of country rankings by segregation index**



**Appendix figure II.2. Relationships between indices of segregation and women’s employment rate**



## Appendix Table II.1. Index of Gender Segregation for All in Employment excluding Agricultural occupations

Note: Agricultural Occupations defined as ISCO 6 and ISCO 921

Source: ELFS 2000; 1998 -No data for Ireland; 1995 - No data for Sweden and Finland

### a. IP Index and Ranks

IP	2000		1999		1998		1997		1995	
<b>Austria</b>	28.54%	12	28.92%	12	28.79%	11	29.09%	13	25.00%	5
<b>Belgium</b>	26.89%	8	26.37%	6	26.17%	5	27.02%	8	25.83%	7
<b>Germany</b>	27.53%	9	27.69%	10	27.71%	9	27.44%	9	26.97%	10
<b>Denmark</b>	28.14%	11	29.46%	13	29.09%	12	27.97%	11	30.76%	13
<b>Spain</b>	25.70%	3	25.55%	4	25.31%	3	25.12%	4	24.82%	4
<b>Finland</b>	30.98%	15	29.92%	15	32.11%	14	31.03%	15	:	:
<b>France</b>	27.56%	10	27.62%	9	27.92%	10	28.13%	12	27.96%	12
<b>Greece</b>	24.14%	2	23.82%	2	24.25%	2	24.14%	2	23.71%	2
<b>Ireland</b>	26.88%	7	26.45%	7	:	:	24.82%	3	24.69%	3
<b>Italy</b>	22.30%	1	22.66%	1	22.31%	1	22.24%	1	22.27%	1
<b>Luxembourg</b>	25.88%	5	25.68%	5	26.28%	6	25.26%	5	26.49%	8
<b>Netherlands</b>	25.79%	4	25.03%	3	25.44%	4	25.92%	6	25.50%	6
<b>Portugal</b>	28.55%	13	28.13%	11	27.66%	8	26.82%	7	26.60%	9
<b>Sweden</b>	29.16%	14	29.52%	14	29.23%	13	29.94%	14	:	:
<b>UK</b>	26.75%	6	27.03%	8	27.28%	7	27.45%	10	27.71%	11
<b>EU</b>	25.88%		26.08%		26.05%		25.91%		25.52%	

### b. ID index and Ranks

ID	2000		1999		1998		1997		1995	
<b>Austria</b>	57.95%	13	58.79%	12	58.58%	12	59.27%	13	50.98%	3
<b>Belgium</b>	54.95%	8	53.97%	6	53.90%	4	55.87%	9	53.67%	6
<b>Germany</b>	55.89%	10	56.27%	10	56.47%	10	55.98%	10	55.27%	9
<b>Denmark</b>	56.43%	11	59.15%	14	58.43%	11	56.23%	11	62.04%	13
<b>Spain</b>	54.55%	6	54.81%	8	54.78%	5	54.53%	7	54.44%	8
<b>Finland</b>	62.03%	15	59.91%	15	64.28%	14	62.13%	15	:	:
<b>France</b>	55.54%	9	55.68%	9	56.29%	9	56.78%	12	56.48%	11
<b>Greece</b>	51.93%	2	51.44%	3	52.81%	3	52.91%	3	52.56%	4
<b>Ireland</b>	54.79%	7	53.93%	5	:	:	50.86%	2	50.92%	2
<b>Italy</b>	47.78%	1	49.01%	1	48.56%	1	48.27%	1	48.72%	1
<b>Luxembourg</b>	53.91%	4	53.77%	4	55.72%	7	53.64%	5	57.62%	12
<b>Netherlands</b>	52.63%	3	51.19%	2	52.28%	2	53.44%	4	52.80%	5
<b>Portugal</b>	57.87%	12	57.04%	11	56.25%	8	54.43%	6	53.99%	7
<b>Sweden</b>	58.38%	14	59.11%	13	58.58%	13	59.95%	14	:	:
<b>UK</b>	54.00%	5	54.57%	7	55.09%	6	55.39%	8	55.96%	10
<b>EU</b>	52.80%		53.30%		53.35%		53.10%		52.55%	

c. WE Index and Ranks

<b>WE</b>	<b>2000</b>		<b>1999</b>		<b>1998</b>		<b>1997</b>		<b>1995</b>	
<b>Austria</b>	65.06%	13	66.30%	14	66.19%	10	67.33%	13	58.04%	1
<b>Belgium</b>	62.96%	9	62.15%	7	63.09%	7	65.95%	11	64.04%	9
<b>Germany</b>	62.69%	8	63.36%	10	64.16%	9	63.84%	9	63.87%	8
<b>Denmark</b>	59.39%	2	62.84%	9	62.23%	5	60.28%	2	67.72%	10
<b>Spain</b>	67.63%	15	69.06%	15	69.86%	14	69.84%	15	70.59%	12
<b>Finland</b>	64.13%	10	61.85%	6	66.31%	11	64.10%	10	:	:
<b>France</b>	60.38%	6	60.65%	3	61.37%	4	62.14%	7	62.04%	5
<b>Greece</b>	65.71%	14	65.43%	13	67.90%	12	68.56%	14	69.01%	11
<b>Ireland</b>	62.32%	7	61.38%	5	:	:	58.70%	1	59.78%	2
<b>Italy</b>	60.09%	4	62.44%	8	62.39%	6	61.80%	6	62.98%	7
<b>Luxembourg</b>	64.71%	12	65.15%	12	68.96%	13	66.56%	12	73.96%	13
<b>Netherlands</b>	60.10%	5	58.82%	1	60.84%	2	62.66%	8	62.55%	6
<b>Portugal</b>	64.56%	11	63.74%	11	63.46%	8	61.03%	4	60.52%	3
<b>Sweden</b>	60.01%	3	61.10%	4	61.18%	3	61.79%	5	:	:
<b>UK</b>	59.16%	1	59.81%	2	60.43%	1	60.64%	3	61.40%	4
<b>EU</b>	60.20%		61.07%		61.54%		61.31%		61.45%	

### **III. Indicators on Gender Gaps in Pay and Income**

Ursula Barry, Francesca Bettio, Hugo Figueiredo, Damian Grimshaw, Friederike Maier and Robert Plasman

#### **III. Introduction**

Gender gaps in pay and income are linked to continuing differences in the labour market position of men and women and to the gendered social and welfare state systems of different countries. To highlight these differences and to show how different factors influence the outcome in pay and income it is necessary to identify their relative importance in the labour market and social context of the EU member states. The gender *pay gap* mainly reflects the different status of men and women in the world of paid work, which relates to differences in age, education, patterns of employment (by sector and by occupation), working-time (especially differences between full and part-time work) and employment contract. The gender *income gap* includes a wider range of different sources of income, including income from self employment, income from capital investment and income transfers (including welfare benefits). As such the gender income gap reflects a whole variety of differences beyond the labour market – including differences in benefit and tax policy and differences in the treatment of men and women or special groups of men and women (such as married women or mothers) – and therefore reflects the impact of the social and tax policies of a society on the relative income position of men and women.

To isolate the relative importance of these factors it is necessary to develop a set of indicators that can inform policy designed to close gender gaps in pay and income. This chapter begins by reporting on the usual sources of data on pay and income used in the assessment of gender gaps in pay and income. Section 2 discusses the current EC indicators on pay and income and section 3 identifies how a more differentiated analysis of existing data sources could highlight more effectively the range of factors associated with gender gaps. The chapter concludes with proposals for an alternative set of indicators and revisions of existing data.



### **III.1. Assessment of sources of pay and income data**

At the present time, there are two main European data-sets for comparing gender pay gaps across Europe: the European Structure of Earnings Survey (ESES) and the European Community Household Panel (ECHP). As we demonstrate below, neither data source is adequate for the task of comparing gender pay gaps across countries or for monitoring the development of the gender pay gap over time. This observation is not new and in fact there is at present plans for revising these data sets. The ECHP database is to be replaced by a new EU Survey of Income and Living Conditions (SILC) from 2003 (available in 2005), which will provide data on earnings in both gross and net terms. Additionally, in accordance with new regulations, the ESES will be carried out every fourth year from 2002, although no decision has been made regarding expanding coverage to all sectors (EC, DOC-EQOP 60-2001). Also, while only net wage data were available from the ECHP database at the time of compiling this report, since late 2001/ early 2002 the data base has been reconfigured to enable access to gross earnings data for all available years. This is a major improvement and clearly means that much of what we have to say about the ECHP data trends has been superseded by events; we therefore look forward to further analysis of gross earnings data from the ECHP data base.

Table III.1 compares and contrasts the strengths and weaknesses of the two data sets. The main weakness of the ESES is that it excludes the public sector and is carried out infrequently. Another problem arises from the fact that access to the data base is only indirect and on an aggregate basis. As we discuss below, this presents particular problems with regard to estimating indicators for low pay, since these depend on access to employee earnings data. The main weakness of the ECHP is that the information (as available during the summer of 2001) only comprises net pay. This conflicts with the principle of equal pay, which arguably applies to receipt of gross pay. Moreover, comparison of net pay across member states is made difficult by the variation of income tax systems between countries, as well as the differential impact of income tax between spouses and household types.<sup>18</sup> If we consider instead the strengths of the two data-sets we find it is possible to consider issues of individual and family background in exploring pay issues using the ECHP while for the ESES the main

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<sup>18</sup> Clarke shows the cross-country differences in data coverage for the Harmonised Statistic of Earnings (Clarke 2001).

advantage lies in the detailed information on the composition and structure of earnings and in its reliability.

**Table III.1. Comparing the European Community Household Panel and the European Structure of Earnings Survey**

	<i>ECHP</i>		<i>ESES</i>	
	<i>Advantages</i>	<i>Shortcomings</i>	<i>Advantages</i>	<i>Shortcomings</i>
<b>Coverage</b>	ECHP covers whole population (inactive, employees and self-employed)			Only persons at work
<b>Inclusion of</b>	Self employed useful for countries where self employment is significant, especially for women	Only covers employees working more than 15 hours per week.		Only private sector and employees, and firms with more than 10 employees
		No data for Sweden. Incomplete data for the Netherlands.		No data for Ireland.
<b>Family and household</b>	Household data set which includes a lot of useful information on number and age of children, marital status etc.			No information on these variables
<b>Economic sectors</b>		Only disaggregates 18 sectors. Problematic because sectors are very heterogeneous from the gender point of view.	Data available on NACE2 digits level. Estimations on 2digit level (OAXACA-type decomposition) give narrower wage gaps than NACE1 digit or ECHP sectors.	
<b>Education level</b>		Only 3 levels		
<b>Wage data</b>		Net wages (although access to gross wage data made possible from 2002).	Gross wages paid by the employer	
		Hourly wage data not collected directly, only annual and monthly net wage collected. (Eurostat)	Hourly wage data collected.	
		No details on the structure of wages	Structure of earnings is the basis of the data set (basic rate of pay, overtime, bonuses, etc.)	
<b>Availability</b>	ECHP individual data set may be purchased at a very low cost. It may be used extensively	Due to the quality of income and wage data, users must be very cautious	Use of individual data should be very useful, for example if estimating wage gap with econometrics methods	ESES is only available in the form of cross tabulations or computing by EUROSTAT and under very restrictive conditions of confidentiality.
<b>Quality of data</b>		Countries seem to differ regarding quality of pay data. Problems of comparing data from one year to the next. Procedures for dealing with outliers is not transparent. Small sample size limits disaggregation of data		
<b>Periodicity</b>	Annual. Four waves available (1994, 1995, 1996, 1997)			Only 1995 data currently available. Every 4 years from 2002.
<b>Type of data</b>	Panel data			No panel data
	Individual data facilitate wage equation models	Survey of households introduces problems of subjectivity and low response rate	Employer survey. Implies relatively good reliability of wage data	

**Table III.2. Comparison of country ranks by gender pay gap using the two data sources**  
(the country with the narrowest gender pay gap is ranked 1, and so on)

<b>ECHP (All)</b>		<b>ECHP (Private Sector)</b>	<b>ESES (All)</b>	<b>ESES (FT)</b>	<b>ESES (PT)</b>
?	<b>SW</b>	?	1	1	6
5	<b>DK</b>	1	2	4	1
6	<b>FI</b>	2	3	5	2
2	<b>BE</b>	3	5	3	3
8	<b>GR</b>	4	8	9	4
3	<b>ES</b>	5	10	10	12
7	<b>FR</b>	6	9	7	13
10	<b>NL</b>	7	13	14	7
9	<b>LU</b>	8	4	2	8
12	<b>AT</b>	9	11	12	14
13	<b>UK</b>	10	14	11	10
11	<b>IR</b>	11	--	--	--
4	<b>IT</b>	12	6	8	5
1	<b>PO</b>	13	12	13	9
14	<b>DE</b>	14	7	6	11

Note: ECHP data are for 1996 and ESES are for 1995.  
ECHP 1996 chosen due to the availability of data for the Netherlands

The problems of the two data-sets are underlined when we compare the ranks by country using the two data-sets (table III.2). The exclusion of public sector pay from the ECHP data-set reduces the divergence somewhat but there are still notable differences (eg. for Spain and for the Netherlands), suggesting that the data-sets yield quite different indicators of gender pay gaps, in both the size of the gap and the ranking between countries. This could be due to the fact that ECHP data use net wages and ESES data refer to gross wages. Moreover, the definition of hourly pay in the ECHP data is subject to measurement errors since it is not measured directly but relies on calculations based on annual (or monthly) net pay adjusted for estimates of hours worked (see Applica 2001 for a detailed discussion).

If the objective is to measure the gender pay gap from the point of view of wage formation within the firms, such as to estimate the impact of various components of the wage structure on the gender pay gap, then the ESES is a more powerful tool. But the public sector is not in the sample and the periodicity is quite long. Another problem concerns the availability of the full data set for all member states, even for EUROSTAT, due to the problem of

confidentiality. Cross tabulations are possible but this restricts the possibilities of estimating the wage gap. PIEP (Pay Inequalities and Economic Performance) is a DG research funded project using ESES on an individual basis level, in order to study the gender pay gap. The results and methodology associated with this project could be used in the near future for building indicators on the gender pay gap with ESES. These kinds of result could include Oaxaca-type decomposition analyses, the standard method used for analysing the factors contributing to the gender pay gap. It is also useful to know that in some countries, ESES has been completed with administrative data in order to have data for the public sector that is missing in the harmonised ESES, and that ESES is also provided on an annual basis in some countries.

The ECHP survey is more suitable for studies of income since it includes variables related to family situation and social security transfers. The income of the self employed may also be studied since they are in the sample. It is also the only presently available panel, with annual data available from 1994 through to 1997. are possible. The limitations of the data set, which we identify below, are nevertheless quite important.

- *The use of net wages.* As we noted above, Eurostat addressed this problem in 2002 and has made data on gross earnings available for all four waves. At the time of compiling this report we only had access to net earnings data and were under the impression that no questions were asked concerning gross earnings in the ECHP survey. Eurostat has since clarified this matter; gross earnings data were collected for some of the variables in all four waves and these data are accessible from 2002. Use of net earnings data is problematic when considering the gender pay gap. The first problem is that net earnings data are likely to generate different results to the more widely used gross earnings information due to the correcting effects of the tax and social security contribution systems. The net pay measure therefore mixes the demand and supply effects on the gender pay gap and conflates the effects of wage formation and social policy/tax policy. The second problem concerns the ability to use net wage data for inter-country comparisons. For example, in some countries (for example, Germany), the taxation system (joint married couples splitting system) has a strongly gendered impact on married men's and women's monthly net wages, whereas this is not the case in countries with individualised taxation systems.

- *The quality of the wages and income data.* There are a lot of missing values concerning wages and income. Ideally these missing values should be replaced by imputed values, obtained by statistical methods. This weakness is associated with the usual problem associated with data on wages and income when they are given by individuals – the risk of errors and approximation, confusion between gross and net wages, as well as confusion relating to the structure of the wage. If these kinds of error and weaknesses of the wages and income data are randomly spread between men and women, or if the distributional structure of these errors are similar for men and women, then it may be assumed to have no effects on the measure of the gender wage gap. Otherwise the indicators could be biased.
- *The quality of data on working hours and the link with the data on wages and income.* This is also problematic since we know that the estimation of the gender wage gap should be calculated from data on hourly wages. When using monthly or annual data, we combine labour demand and supply factors and the results cannot be interpreted solely in terms of wage discrimination. This not only concerns full and part-time distinction, but also the inclusion of overtime.

Careful analysis of the two data sets for the case of Belgium has been carried out and similar figures for the gender pay gap have been found. However, this work was very time-consuming and was only possible because the estimation of gross wages from net wages given in ECHP had been carried out very carefully. Moreover, it was only possible with a special programme formulated for Belgium, which applies a micro-simulation model (MODETE, DULBEA). The transition from net wages to gross wages for all the 13 countries included in the survey could be done but it would need to be checked very carefully, because the wage gap might be underestimated or overestimated depending on the characteristics of the fiscal system. Again, this problem is potentially minimised if, as we understand, Eurostat has now made available information on gross earnings in ECHP which have been collected directly, rather than imputed using tax simulation models.

Use of either (or both) data sets depends very much on the purpose of the investigation. The ESES data must be used where there is a need for rich information on wage formation within the firms and sectors. And we know that wage discrimination primarily operates at this level. The ECHP data must also be used, not only because it covers a wider range of women

workers, but also because it gives detailed information on family structure and other income and social security transfers.

## **III.2 Problems with current indicators on pay and income**

The two indicators currently in use to monitor gender equality in pay and income are:

- Indicator EO<sub>5</sub>, the gender pay gap.

This is defined as the ratio of women's net hourly earnings index to men's for paid employees at work 15+ hours. A breakdown by private and public sectors is included. The data source is the European Community Household Panel (ECHP).

- Indicator EO<sub>6</sub>, the gender income gap.

This is defined as the proportion of women earning less than 50 per cent of national median annual income, compared to the corresponding proportion of men. The indicator is based on the ECHP.

Reliance on just two indicators as a measure of gender differences in pay and income can only offer a limited picture; additional indicators would obviously enrich our understanding of the complexities involved. Moreover, there are particular problems with the two indicators selected, both as statistical measures per se and in relation to the use of the ECHP data. In the following discussion we assess the advantages and disadvantages of the two indicators and propose alternative suggestions. For indicator EO<sub>5</sub> the use of the proposed ECHP source versus the alternative source – the European Structure of Earnings Survey (ESES) - is also discussed, and analysis of actual data is presented to document the comparative reliability of measures and sources.

### **III.2.1. Assessment of Indicator EO<sub>5</sub>**

Assessment of EO<sub>5</sub> as a statistical measure cannot be separated from a discussion of the relative merits of existing data sources to be used for its actual calculation (see Table III.1 above). The pros and cons of this indicator and of the possible data sources are summarised below.

	<i>Strengths</i>	<i>Weaknesses</i>
<b>EO<sub>5</sub></b>	<p>Good synthetic measure based on wide coverage;</p> <p>Best indicator to monitor possible discrimination because it controls for differences in hours</p> <p>Hourly pay data allows for integration of part-timers and full-timers</p> <p>Break down of the indicator by public and private sector is essential given marked differentials between these sectors and high but varying concentration of women in the public sector. The breakdown also allows for comparison between ECHP and ESES.</p>	<p>The ratio of averages does not reveal the possibility of women moving in opposite directions, that is, an increasing female share among the low paid and the high paid</p> <p>It takes no account of changes in the overall wage structure. For example, increases in the overall volume of low paid work may narrow the gap through levelling down of men's average pay</p> <p>Hourly pay may not be appropriate for many professional groups, e.g. teachers.</p> <p>It takes no account of the impact of part-timers' pay on the indicator</p>

A major issue concerning the ECHP data source is the quality of the data and further analysis is needed on this point in order to reach a firmer assessment. In the experience of ECHP users, one of the difficulties in an assessment of trends in the gender pay gap is the erratic results from year to year, which can be taken as an indicator of poor reliability of the data. The degree of instability, however, varies depending on how the gender pay gap is measured as well as on the breakdown that is chosen.

There are four main problems which we consider here. The first is the risk of poor quality for data on hours of work obtained from household surveys (like the ECHP), as opposed to surveys of actual firms (like the ESES). As Table III.3 demonstrates this causes the measurement of the hourly gender pay gap to be markedly erratic from wave to wave.

ECHP data on hourly earnings can be obtained by dividing monthly earnings by weekly hours of work. Two definitions of monthly earnings are provided by the ECHP, regular and total monthly earnings. The former refers to the main, regular job. The latter refers to all sources of wage earnings in the month. We have chosen 'regular monthly earnings' (coded PI211M) in order to enhance comparability across individuals and to match with the data on hours of work, which also refer to 'normal' hours in the main job (these include overtime and are coded PE005a). Despite these somewhat restrictive choices, visual inspection of table III.3

below highlights that gender pay ratios of regular monthly earnings for all employees are far more ‘stable’ than gender pay ratios of hourly earnings.

**Table III.3 Gender Pay Ratio for monthly and hourly data, all employees working 15 hrs+**

	<i>ECHP: regular monthly earnings by sex (PI211M)</i>			<i>ECHP: regular hourly earnings by sex (pi211M/pe005a)</i>		
	Wave 1	Wave 2	Wave 3	Wave 1	Wave 2	Wave 3
Germany	56.7	56.7	59.7	70.9	61.7	58.8
Denmark	78.8	77.0	78.8	93.8	90.9	91.1
Netherlands	62.9	62.1	62.2	80.4	81.3	82.7
Belgium	73.9	74.4	74.6	92.4	95.4	88.5
Luxembourg	69.2	72.3	71.3	81.2	81.8	80.6
France	70.9	70.9	71.6	83.3	104.6	99.5
U.K.	61.0	60.2	61.1	80.3	80.5	80.4
Ireland	67.8	67.6	67.3	81	81.3	80.4
Italy	77.9	78.4	76.5	92	93.5	96.4
Greece	75.8	74.1	73.1	88.2	83.7	85.6
Spain	79.2	75.6	78.1	92.3	88	91.3
Portugal	82.4	81.7	79.3	98.7	98.3	93.0
Austria	--	65.8	64.6	--	79.5	77.2
Finland	--	--	79.7	--	--	88.3

The second problematic aspect is that the erratic behaviour is markedly greater for part-timers, presumably because their dispersion of hours is higher (Table III.4). Consequently, it hinders any meaningful comparison between part-timers and full-timers using the ECHP source. As a simple measure of ‘instability’ we have calculated for each country the average, absolute difference between each pair of gender pay ratios in the three waves (i.e. wave 1 - wave 2; wave 1 - wave3; and wave 2 - wave3), calling this measure  $D_h$  (see note to Table III.4). Table III.4 reveals that the measure  $D_h$  is systematically higher for gender pay ratios among part-timers, with the sole exception of Austria.



**Table III.4 Instability of ECHP Gender Pay Ratios on hourly earnings: Full-timers versus Part-timers**

	<i>Full-timers</i> (employees working 30 hrs+)				<i>Part-timers</i> (employees working < 30 hrs)			
	Wave 1	Wave 2	Wave 3	Dh	Wave 1	Wave 2	Wave 3	Dh
<b>Germany</b>	69.32	68.69	72.96	2.85	64.16	63.08	79.24	10.77
<b>Denmark</b>	90.39	89.86	88.39	1.33	137.13	94.91	110.87	28.14
<b>Netherlands</b>	82.28	80.88	82.80	1.28	61.66	90.58	87.96	19.28
<b>Belgium</b>	88.60	91.42	88.52	1.93	85.27	81.70	77.75	5.01
<b>Luxembourg</b>	83.12	84.54	84.30	0.95	76.80	83.46	89.16	8.24
<b>France</b>	83.26	86.60	87.04	2.52	68.52	74.43	85.51	11.33
<b>U.K.</b>	82.79	82.04	84.17	1.42	60.49	81.76	75.45	14.18
<b>Ireland</b>	77.55	83.31	83.55	4.00	72.58	77.82	72.05	3.85
<b>Italy</b>	85.31	92.03	86.61	4.48	79.37	105.21	93.72	17.23
<b>Greece</b>	81.15	83.53	84.70	2.37	89.28	94.39	79.21	10.12
<b>Spain</b>	92.27	88.23	89.54	2.69	76.83	88.21	89.06	8.15
<b>Portugal</b>	90.22	91.19	90.70	0.65	56.90	74.97	64.16	12.05
<b>Austria</b>		77.45	79.54	2.09		65.51	67.55	2.04
<b>Finland</b>			86.13				111.12	

Note:  $D_h = \{|\text{wave1-wave2}| + |\text{wave1-wave3}| + |\text{wave2-wave3}|\} / 3$

The third problem is that even if the ECHP sample is restricted to full-timers, erratic behaviour continues to be more marked for the hourly wage gap than for the monthly wage gap (table III.5). For a comparison we have recalculated the above measure of instability for full-timers only using, alternatively, hourly earnings ( $D_h$  as above) and regular monthly earnings ( $D_m$ ). We have finally subtracted  $D_m$  from  $D_h$ , with a positive difference indicating that hourly data yield more unstable results, the more so the greater the positive value. Table III.5 reveals that the vast majority of countries (8 out of 13) record a positive difference.

**Table III.5 Instability of ECHP Gender Pay Ratios for full-timers: monthly versus hourly earnings**

	<i>ECHP: regular monthly earnings</i> <i>by sex (PI211M)</i>				<i>ECHP: regular hourly earnings by</i> <i>sex (pi211M/pe005a)</i>				
	Wave 1	Wave 2	Wave 3	Dm	Wave	Wave	Wave	Dh	Dh-Dm
<b>Germany</b>	63.25	62.79	67.49	3.13	69.32	68.69	72.96	2.85	-0.29
<b>Denmark</b>	82.21	81.34	81.88	0.58	90.39	89.86	88.39	1.33	0.75
<b>Netherlds</b>	73.28	73.79	74.64	0.91	82.28	80.88	82.80	1.28	0.37
<b>Belgium</b>	80.83	82.30	82.01	0.98	88.60	91.42	88.52	1.93	0.95
<b>Luxembg</b>	78.73	80.67	81.24	1.68	83.12	84.54	84.30	0.95	-0.73
<b>France</b>	76.09	77.60	78.22	1.42	83.26	86.60	87.04	2.52	1.10
<b>U.K.</b>	72.57	71.09	73.78	1.79	82.79	82.04	84.17	1.42	-0.38
<b>Ireland</b>	71.95	74.20	75.00	2.04	77.55	83.31	83.55	4.00	1.96
<b>Italy</b>	79.64	80.79	78.52	1.51	85.31	92.03	86.61	4.48	2.97
<b>Greece</b>	76.14	75.06	76.50	0.96	81.15	83.53	84.70	2.37	1.41
<b>Spain</b>	83.96	81.55	81.90	1.61	92.27	88.23	89.54	2.69	1.09
<b>Portugal</b>	81.97	82.90	81.19	1.14	90.22	91.19	90.70	0.65	-0.49
<b>Austria</b>		71.74	71.71	0.03		77.45	79.54	2.09	2.06
<b>Finland</b>			80.71				86.13		

Note:  $D_h, D_m = \{|\text{wave1-wave2}| + |\text{wave1-wave3}| + |\text{wave2-wave3}|\} / 3$

The fourth problem is that should hourly data be chosen despite the aforementioned shortcomings, the results based on ECHP would not match those yielded by the ESES source - even after discounting for existing differences in data definitions and coverage between the two sources. Recall that, unlike the ECHP, the ESES source excludes firms below 10 employees, surveys gross rather than net earnings and does so only for employees at work. Other than that, the two sources can be made comparable by restricting the sample to wage employees in the private sector in 1995. In view of the noted problems with ECHP hourly earnings for part-timers, table III.6 below further limits the sample to full-timers. Nevertheless, the lack of correspondence in the two sets of results is apparent in several cases (e.g. a 10 point drop in the gender pay ratio for the Netherlands and a difference of 15 points for Germany. In the case of Germany this is clearly connected to the income tax and social benefit system, which reduces (married) women's net wage substantially. Indeed, systems of tax and social benefits are so variable from one country to another as to cast doubt on comparative analyses of gender pay ratios that rely on net earnings data.

**Table III.6 Gender Pay Ratios based on hourly earnings for full-timers in the private sector, 1995: ECHP versus ESES**

	ECHP net earnings	ESES gross earnings	Difference in ESES and ECHP measures
<b>Germany</b>	62.00	77.00	15.00
<b>Denmark</b>	88.86	86.30	-2.56
<b>Netherlands</b>	80.70	70.60	-10.10
<b>Belgium</b>	88.62	85.70	-2.92
<b>Luxembourg</b>	78.57	85.90	7.33
<b>France</b>	81.43	80.50	-0.93
<b>U.K.</b>	76.07	77.00	0.93
<b>Ireland</b>	79.33	75.30	-4.03
<b>Italy</b>	82.10	80.90	-1.20
<b>Greece</b>	79.60	75.10	-4.50
<b>Spain</b>	80.40	76.40	-4.00
<b>Portugal</b>	74.92	71.50	-3.42
<b>Austria</b>	72.79	75.90	3.11
<b>Finland</b>	--	81.50	--

As a result of the problems identified, it is clear that sole use of the ECHP data for the calculation of indicator EO<sub>5</sub> yields inconsistent results from year to year and generates a

distorted comparison between countries for the same year. This is due mainly to poor quality of the data on hours in this source. In the final section below, we make suggestions for alternative indicators to replace EO<sub>5</sub>.

**III.2.2. Assessment of indicator EO<sub>6</sub>**

The ECHP is necessarily the main source of data for indicator EO<sub>6</sub>, which, unlike EO<sub>5</sub>, also refers to incomes other than wage income and must therefore be derived from household surveys. The pros and cons for this indicator are summarised as follows:

	<i>Strengths</i>	<i>Weaknesses</i>
<b>EO<sub>6</sub></b>	<p>Good general measure that includes total income</p> <p>Can quickly be turned into an index by dividing by 0.5. The index would range from 0 to 2 and is easily interpretable, e.g. a figure of 1.5 would indicate that for any man found among the least earning half of the population there are 1.5 women.</p>	<p>Very difficult to interpret since it conflates volume of persons on low income with a gender gap.</p> <p>Because it does not distinguish between different sources of income it distorts comparison between countries, based on different composition of income earners. Comparisons over time for the same country may be equally distorted.</p> <p>Does not detail at which point of the distribution the problem lies, i.e. at the centre or in the tail. Could be supplemented by indicators based on quartiles or deciles.</p> <p>Use of annual earnings data needs to restrict the sample to men and women employed every month of the preceding year (Applica 2001).</p>

The main difficulty concerning this indicator relate to problems of comparing the measure over time and between countries using the ECHP data. In addition, annual data for this indicator ought to be based on total, rather than regular monthly data, and are therefore likely to give different results from regular monthly data, not only because of the restriction of the sample which is needed to calculate annual earnings, but also because of non coinciding definitions for monthly earnings.

There is also a problem concerning the way the indicator conflates different sources of income into one measure. This then makes it difficult to recommend policy action since the source of discrimination is difficult to identify. Alternatively, therefore, it may be more constructive to disaggregate the indicator EO<sub>6</sub> by main sources of income, especially wage employment labour income (wage and self-employment) and pension income. Should the choice for only one figure be reiterated, then EO<sub>6</sub> ought to be standardised across countries

and time by taking a given ‘mix’ of the different sources of income – for example, the EU15 average – as a reference point, as well as a given year (e.g. 1995).

Finally, the indicator is limited to just one measure of women’s relative position in the income distribution. Supplementary measures might include additional indicators based on quintiles other than the median.

### III.3. Factors associated with the gender pay gap

This section provides an analysis based on a set of alternative indicators for the gender pay gap. Table III.7 presents the country-related data on hourly earnings and repeats the exercise we have already shown above. Again, depending on the data source, not only is the relative gender gap quite different (see, for example, Spain, France, Italy, Portugal and the UK) but also the rank of many countries changes quite remarkably from one source to the other (see, for example, Portugal or Germany). Depending on the data source you use, a country may have a relatively high gender pay gap or an average gap, or even a relatively low one. If an assessment is limited to just one data source, therefore, the results may generate misleading recommendations (as happened in the Joint Employment report 2000 and 2001).

**Table III.7 Gender Pay Gap by Member State - Hourly Earnings**

	ECHP 1996		ESES 1995	
	GPG All	Rank	GPG ALL	Rank
<b>AT</b>	80%	11	71%	11
<b>BE</b>	91%	2	80%	3
<b>DE</b>	74%	14	73%	7
<b>DK</b>	89%	5	81%	2
<b>ES</b>	91%	2	72%	8
<b>FI</b>	87%	6	78%	5
<b>FR</b>	85%	7	68%	12
<b>GR</b>	83%	8	77%	6
<b>IE</b>	80%	11	:	:
<b>IT</b>	90%	4	71%	10
<b>LU</b>	82%	9	78%	4
<b>NL</b>	82%	9	67%	13
<b>PT</b>	92%	1	72%	9
<b>SE</b>	:	:	82%	1
<b>UK</b>	80%	11	59%	14
<b>EU</b>	83%		70%	

Notes:

ECHP - Average net hourly earnings for paid employees (= persons aged 16-64 working at least 15+ hours per week) - For France gross earnings.

ESES - gender ratio of mean gross hourly earnings; overtime earnings excluded. Euros. No data for Ireland; weighted mean for DE

Sources: ECHP 1996 (DGV calculations); ESES 1995 (own calculations)

Additionally, when we differentiate hourly earnings of full-time and part-time employees (Table III.8), we discover a wide range of changing results. In some countries, the gender pay gap is nearly the same whether you compare part-timers or full-timers; this seems to be the case in Germany, Spain, Luxembourg and Sweden, indicating that the working time component of the wage gap seems less important than gender per se. In other countries, the gender pay gap for full-time working women and men is higher than among part-time working women and men (Belgium, Denmark, Finland, Greece, Italy, Netherlands, Portugal and the UK), whereas in a few countries part-timers have significantly less equal pay than full-timers (Austria, Spain and France). Gender pay gaps among part-timers seem to be quite small in Denmark, Finland, Belgium and Greece, indicating that if men work part-time, their pay equals the pay of part-time working women. The opposite is true for Austria and France: part-time working men and women earn more unequal hourly wages than full-timers, indicating that the gender specific allocation of part-time jobs seems to be quite pronounced with part-time men occupying higher status jobs and enjoying higher rates of pay than women in part-time work.

**Table III.8. Gender Pay Gap for Full and Part Timers, Hourly Earnings and Overtime Excluded**

Gender Ratio of mean gross hourly earnings for employees, overtime excluded , 1995				
	FT	Rank	PT	Rank
AT	72.95%	9	59.16%	14
BE	82.34%	2	94.96%	3
DE	74.95%	7	79.64%	9
DK	79.10%	4	97.98%	1
ES	73.79%	8	70.52%	12
FI	77.74%	5	95.30%	2
FR	71.27%	11	65.07%	13
GR	76.74%	6	93.24%	4
IT	70.77%	12	90.26%	5
LU	80.93%	3	82.24%	8
NL	68.55%	13	85.79%	7
PT	72.14%	10	78.57%	10
SE	83.84%	1	88.54%	6
UK	65.56%	14	75.84%	11
EU14	72.02%		79.71%	

Note: Gender ratio of mean gross hourly earnings; overtime earnings excluded. Euros. No data for Ireland; weighted mean for DE  
Source: ESES 1995 (own calculations), overtime excluded

The impression that the part-time/full-time employment and pay patterns deserve more attention is supported by the data provided in table III.9 which show the average pay ratio of women working part-time compared to men working full-time. The ratio is lowest in the UK,

France, Spain and the Netherlands, and highest in Sweden, Greece and Portugal.<sup>19</sup> Comparing the average pay of part-time employed women with full-time employed women (i.e. trying to exclude the gender effect and calculating only the part-time/full-time effect) shows that in Italy, Portugal and Greece - countries which have a small share of part-time employment - full-time and part-time working women receive approximately the same hourly wages, whereas in the UK and France female part-timers seem to be ghettoised in low paying jobs.

**Table III.9 The Relative Pay of Women Working Part-Time (FPT) Compared to Earnings of Men Working Full Time (MFT), overtime excluded**

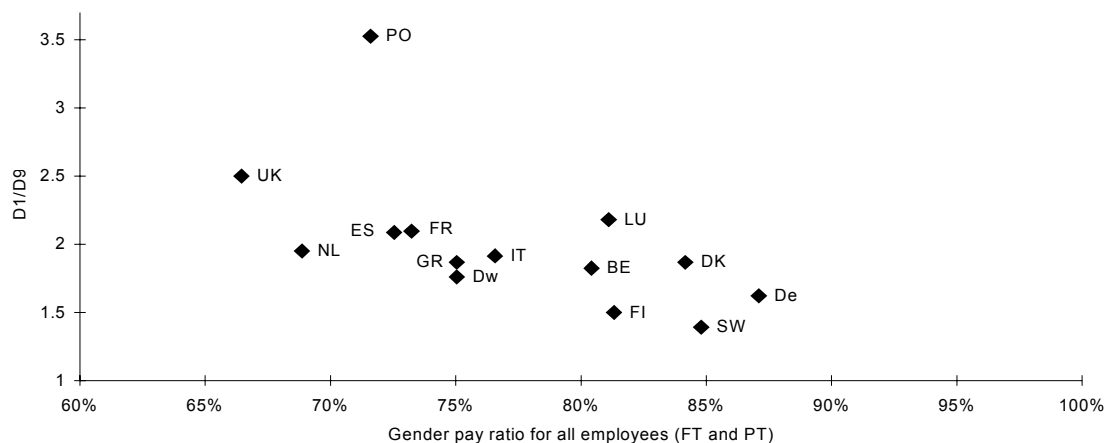
		SES 1995	
		FPT/MFT	Ranks
<b>AT</b>	Austria	67.34%	8
<b>BE</b>	Belgium	72.70%	4
<b>DE</b>	Germany	68.36%	7
<b>DK</b>	Denmark	65.44%	10
<b>ES</b>	Spain	56.45%	12
<b>FI</b>	Finland	69.32%	6
<b>FR</b>	France	52.29%	13
<b>GR</b>	Greece	75.82%	2
<b>IT</b>	Italy	69.49%	5
<b>LU</b>	Luxembourg	66.03%	9
<b>NL</b>	Netherlands	61.80%	11
<b>PT</b>	Portugal	73.33%	3
<b>SE</b>	Sweden	76.48%	1
<b>UK</b>	United Kingdom	44.70%	14
<b>E14</b>	<b>EU</b>	<b>61.79%</b>	

Source: European Structure of Earnings Survey (1995) ( no data available for Ireland) (own calculations); overtime excluded

There is a strong positive association between the overall level of wage inequality and the size of the gender pay gap across member states (Figure III.1). Member states with a high wage differential between high paid and low paid groups are at the bottom of the ranking by size of the gender pay gap (Spain, France, the UK and, in particular, Portugal). Conversely, those states with the most compressed wage structures have a relatively narrow gender pay gap (Sweden, Finland and the former East Germany). This finding is of particular importance for the UK and Portugal where wage inequality increased significantly during the 1990s and can therefore be expected to have acted as a brake on other forces (such as rising levels of education among women) leading to a narrowing of the gender pay gap.

<sup>19</sup> The same calculation was carried out using ECHP data and we found totally different results concerning both the difference between the countries and the absolute difference by country. With ECHP data the pay ratio was relatively high in Portugal, Italy and Greece and small in the UK, Germany and Spain

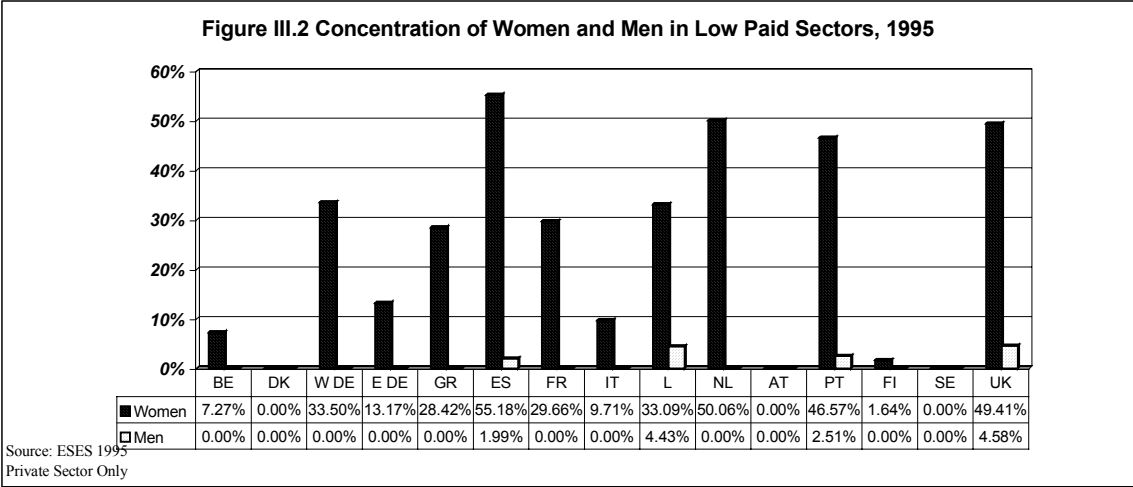
**Figure III.1 Wage inequality and the gender pay ratio**



*Note: The gender pay ratio is for all employees (full-time and part-time); wage inequality is measured as the inter-decile ratio (D1/D9), calculated from industry pay data (48 classifications); gross hourly pay data, overtime included; Austria is excluded due to lack of industry pay data.  
Source: Structure of Earnings Survey, 1995*

Women are penalised by high levels of wage inequality due to their over-representation at the bottom of the wage structure and their under-representation at the top. Knowledge of cross-national differences in the share of men and women in low paid work is thus an important indicator of progress towards gender pay equity. Here, we present two sources of information: industry-level pay data from the ESES; and published data from the OECD. As discussed above, ESES individual-level earnings data is generally not directly available; as such, we are not able here to present data on an ideal indicator of low pay, namely, the share of all female employees earnings less than two thirds of the median hourly pay for full-time male employees in the respective country. As an alternative measure Figure III.2 presents the share of all male employees and all female employees who work in low paying sectors - using the NACE three digit level of classification which provides data for 48 different industry classifications covering manufacturing and services (ESES data). A ‘low paying sector’ is defined as one where the average pay (for men or for women) is less than two thirds of the median pay for all male full-time employees in the member state. Clearly, this indicator is less than perfect; in particular the results do not represent a true picture of the share of low paid workers since low paid workers who are employed in sectors where the average is above two thirds of the male median pay are obviously not picked up in the approach adopted here. Nevertheless important patterns are illustrated in Figure III.2. In Austria, Denmark and

Sweden, all sectors have levels of average pay for men and for women above two thirds of the median pay for all full-time male employees, reflecting the relatively compressed wage structure in these countries. In all remaining member states with low paying sectors, there is a greater concentration of women than men in sectors defined as low paying. Indeed, men only fall into a low paying category in four states – Spain, Luxembourg, Portugal and the UK – and in each case this represents less than 5% of men in employment. By contrast, more than one in four women in private sector employment work in low paying sectors in eight states, and in four of these the share is around half. Spain tops the league of women in low paying sectors with a share of 55.2% (compared to 2% of men), closely followed by the Netherlands (50.1% of women), the UK (49.4%) and Portugal (46.6%). There is also a notable difference between East and West Germany, although this difference is due to just one additional low paying sector in West Germany, namely ‘retail trade’ which accounts for a massive 22.4% of women working in the private sector. Indeed ‘retail trade’ is identified as low paying in eight countries, and is the second most typical low paying sector after ‘manufacture of wearing apparel/dresses’, which is low paying in nine countries.



Notes: Female and male 'Low Paid Sectors' defined as ones with hourly earnings below 2/3 of the male median (per member state)

No data for Ireland

Published data from the OECD (1996) are presented in Table III.10. This does draw on individual-level earnings data and thus presents a more accurate picture of differences in levels of low pay among men and women in the different countries. These shares follow the pattern of earnings inequality revealed in Figure III.1 with the UK and the North American



countries having much higher shares of low paid workers than most continental European countries and in particular much higher shares than the Nordic countries of Finland and Sweden.

**Table III.10 Incidence of low pay by gender**

<b>Country</b>	<b>Total</b>	<b>Men</b>	<b>Women</b>
Australia (1995)	13.8	11.8	17.7
Austria (1993)	13.2	7.0	22.8
Belgium (1993)	7.2	3.9	14.2
Canada (1994)	23.7	16.1	34.3
Finland (1994)	5.9	3.3	8.7
France (1995)	13.3	10.6	17.4
Germany (1994)	13.3	7.6	25.4
Italy (1993)	12.5	9.3	18.5
Japan (1994)	15.7	5.9	37.2
Netherlands (1994)	11.9	--	--
New Zealand (1994/5)	16.9	14.4	20.7
Sweden (1993)	5.2	3.0	8.4
Switzerland (1995)	13.0	6.8	30.4
United Kingdom (1995)	19.6	12.8	31.2
United States (1994)	25.0	19.6	32.5

Notes: The share of low paid workers refers to full-time employment only. Low pay is defined as less than two thirds of median earnings for all full-time employees.

Source: OECD (1996: table 3.2).

Table III.11 provides data on hourly earnings in the private and the public sectors to show the gender pay gaps in these economic sectors and the variation comparing the countries' ranking. We observe a narrower gender pay gap among public sector workers in most countries and, in Portugal, female public sector workers even earn higher average pay than their male counterparts. Possible explanations for the narrower gender pay gap in the public sector compared to the private sector include the fact that public sector employment typically has a lower wage dispersion than the whole economy, as well as the fact that the public sector accounts for a higher share of high skilled and professional female workers compared to that for male workers. Moreover, public sector employers may be more concerned with equal opportunities policy in recruiting and promoting employees than are private sector employers. Interestingly, in Finland the gender pay gap in the public sector is slightly wider than in the private sector. Due to the relative gender pay gaps in the private and public sectors, the countries' position in the overall ranking varies considerably. This effect needs to be studied in more detail, comparing the different wage setting and employment systems of the public sector compared to the private sector.

**Table III.11 Gender Pay Gap by for Public and Private Sectors, ECHP 1995**

<i>Gender ratio (female/male) of net hourly earnings for paid employees' at work 15+'</i>						
<b>ECHP 1995</b>						
	<b>GPG All</b>	<b>Rank</b>	<b>Private Sector</b>	<b>Rank</b>	<b>Public Sector</b>	<b>Rank</b>
<b>AT</b>	81.22%	11	76.81%	11	89.13%	8
<b>BE</b>	86.28%	6	83.17%	3	89.20%	7
<b>DE</b>	72.61%	13	70.50%	13	72.16%	13
<b>DK</b>	87.13%	4	85.52%	1	90.56%	5
<b>ES</b>	91.75%	3	81.27%	6	97.73%	2
<b>FI</b>	81.49%	10	81.46%	5	80.10%	12
<b>FR</b>	86.62%	5	79.11%	9	89.39%	6
<b>GR</b>	85.66%	8	79.51%	8	91.61%	4
<b>IE</b>	86.19%	7	81.99%	4	87.20%	9
<b>IT</b>	91.80%	2	84.98%	2	94.17%	3
<b>LU</b>	84.32%	9	80.50%	7	85.97%	11
<b>PT</b>	100.15%	1	78.50%	10	112.72%	1
<b>UK</b>	79.60%	12	73.83%	12	86.25%	10

Note: Definition: ratio between women's and men's average hourly net pay (national currencies), full-time and part-time employees

Source: European Community Household Panel, Wave 3 1995 (own calculations)

The positive effect of public employment on women's wages is demonstrated in table III.12. In all countries women's average pay in the public sector exceeds the average hourly pay of women employed in the private sector. This pattern is most marked in Portugal and less pronounced in Denmark and Finland. More strikingly, in seven countries women employed in the public sector earn more, on average, than all male workers in the economy (in Portugal, Spain, Ireland, Luxembourg, Italy, Greece and France). As this calculation is based on net earnings, the results for men and women are strongly influenced by the tax/benefit system, which (as we saw above) is especially the case for example in Germany.

**Table III.12. Female Wage Premium of Public vs. Private Sector Employment, ECHP net hourly earnings 1995**

<i>Pay ratios of net hourly earnings for paid employees 'at work 15+', 1995</i>				
	<i>ECHP 1995</i>			
	<b>F Public/F Priv</b>	<b>Rank</b>	<b>F Public/All Men</b>	<b>Rank</b>
<b>AT</b>	120.3%	10	91.3%	8
<b>BE</b>	111.1%	11	91.2%	9
<b>DE</b>	120.6%	9	80.7%	13
<b>DK</b>	100.8%	13	87.4%	11
<b>ES</b>	159.0%	4	118.7%	2
<b>FI</b>	103.5%	12	82.7%	12
<b>FR</b>	136.8%	7	101.9%	7
<b>GR</b>	159.9%	3	108.4%	6
<b>IE</b>	162.3%	2	111.8%	3
<b>IT</b>	141.8%	6	109.2%	5
<b>LU</b>	155.5%	5	109.6%	4
<b>PT</b>	231.3%	1	158.5%	1
<b>UK</b>	121.8%	8	88.9%	10

Note: Average Net Hourly Earnings for paid employees at work 15+  
Source: European Community Household Panel, Wave 3 1995

In Table III.13 we highlight another dimension of the employment structure on the gender pay gap, namely, the distribution of male and female employment between industry and private services sectors. At the aggregate level of the EU, we do not find substantial differences. The gender pay gap in industry is 73.5% and in services it is 73.0% (1995, ESES). But differences are apparent across individual member states. In some countries there is a wider gender gap in industry compared to the private services sector (in the former east Germany, Greece and Portugal), whereas in the remaining countries the gender pay gap in private services is wider than in industry. This may be due to different systems of wage setting and wage negotiations in the private services and manufacturing industries, with the latter characterised by greater coverage of collective bargaining arrangements, and the former by more individualised wage-setting procedures.

**Table III.13 Gender pay gap for all employees (FT and PT), by manufacturing and private services, 1995**

	<b>All sectors</b>	Rank	<b>Industry</b>	Rank	<b>Private Services</b>	Rank
<b>Belgium</b>	80.4%	6	81.6%	4	78.6%	7
<b>Denmark</b>	84.2%	3	85.9%	1	81.3%	3
<b>DEW</b>	75.0%	8	76.2%	8	75.6%	9
<b>Ex DD</b>	87.1%	1	85.1%	3	91.5%	1
<b>Greece</b>	75.0%	9	69.2%	13	79.3%	6
<b>Spain</b>	72.5%	11	73.4%	10	70.9%	13
<b>France</b>	73.2%	10	75.6%	9	70.9%	12
<b>Italy</b>	76.6%	7	78.5%	7	72.8%	10
<b>Luxembourg</b>	81.1%	5	80.4%	6	76.8%	8
<b>Netherlands</b>	68.9%	14	73.2%	11	67.3%	14
<b>Austria</b>	71.7%	12	72.6%	12	71.8%	11
<b>Portugal</b>	71.6%	13	67.3%	15	79.5%	5
<b>Finland</b>	81.3%	4	80.6%	5	80.3%	4
<b>Sweden</b>	84.8%	2	85.6%	2	82.7%	2
<b>United Kingdom</b>	66.4%	15	68.4%	14	65.2%	15
<b>E14</b>	<b>72.7%</b>		<b>73.5%</b>		<b>73.0%</b>	

Note: Gross hourly earnings. Overtime included. No data for Ireland

All sectors = NACE C to K; Industry = NACE C to F; Private services = NACE G to K.

Source: SES 1995 (own calculations)

Table III.14 demonstrates the differences of gender pay gaps in relation to educational levels of men and women. The results make clear that country-specific structures in the educational system and in the corresponding labour market systems (i.e. employment and wage systems) change the relative wage gap and the ranking of countries. In general we can state that the gender pay gap is wider for highly educated men and women and narrower for the less educated. Nevertheless, there is substantial variation across member states. In Denmark, Finland and Sweden there is a small gender pay gap at all levels of education, which signals a similar structure of gender-specific differences that transcends differences in educational level. In contrast, Austria has a very wide gender pay gap for the highly educated (much wider than the EU average) combined with an average size gap (similar to the EU average) for mid-level educated men and women. The country where differences in education have least effect on the gender pay gap is the UK; men and women at all levels of education experience a gender pay gap of 71%, which places the UK at the bottom of the country ranking for the lower educational levels and in eighth place for the highly educated.

Since compositional differences among men and women in their respective levels of education shape the gender pay gaps in each country, it is useful to compare a measure of gender pay gaps which controls for differences in composition. Table III.15 provides estimates of the gender pay gap based on two different assumptions: first, the gender pay gap is re-estimated based on equating the composition of women at different educational levels to

that of men within the country; and, secondly, average pay for men and women in each country is re-estimated by equating the composition of men and women at each education level with that of the average pattern for the EU. Table III.15a shows that if the composition of education among women is equated to that of men within each country then the gender pay ratio increases in 8 out of 14 countries; this pattern is most striking in the UK (increase of 3.9 percentage points), Finland (3.4 points) and Germany (3 points). In six countries, the gender pay ratio decreases, although this is not very significant in France and the Netherlands. The inter-country ranking is upset most in the case of Greece (a fall in ranking from tenth to thirteenth place) and in Austria (a rise from twelfth to ninth place). As might be expected, far more significant change in the gender pay ratio occurs once we equate within country compositions of education among both men and women to the EU average, since inter-country differences in education are far greater than gender differences within each country (Table III.15b). In 8 countries the gender pay ratio is increased by between 2 and 13 percentage points and in 6 it is reduced by up to 15 points. Nevertheless, few countries significantly change their position in the ranking by relative size of gender pay ratio. The main changes at the top of the ranking are France, which moves up to second place (from sixth) and Luxembourg which is knocked down to ninth place. At the bottom, Italy is pushed down from eighth to twelfth place and the UK escapes from bottom place to seventh.

**Table III.14 Gender Pay Ratio by Level of Education**

	<b>E1</b>	<b>Rank</b>	<b>E2</b>	<b>Rank</b>	<b>E3</b>	<b>Rank</b>	<b>Total (GPG)</b>	<b>Rank</b>
<b>Belgium</b>	81.16%	4	82.93%	3	71.50%	7	<b>81.12%</b>	4
<b>Denmark</b>	86.72%	1	86.71%	1	76.09%	3	<b>82.18%</b>	3
<b>Germany</b>	79.14%	6	78.72%	7	74.55%	4	<b>75.01%</b>	7
<b>Greece</b>	68.55%	14	73.38%	11	70.98%	9	<b>71.17%</b>	10
<b>Spain</b>	73.76%	9	74.41%	9	65.37%	11	<b>73.30%</b>	9
<b>France</b>	77.50%	8	81.61%	4	68.15%	10	<b>76.10%</b>	6
<b>Italy</b>	78.08%	7	73.63%	10	60.35%	13	<b>74.28%</b>	8
<b>Luxembourg</b>	81.58%	3	80.77%	6	74.49%	5	<b>82.27%</b>	2
<b>Netherlands</b>	73.42%	10	68.70%	14	60.85%	12	<b>69.06%</b>	13
<b>Austria</b>	71.47%	11	74.48%	8	60.26%	14	<b>70.45%</b>	12
<b>Portugal</b>	70.75%	13	73.06%	12	72.92%	6	<b>70.78%</b>	11
<b>Finland</b>	80.85%	5	81.59%	5	82.72%	1	<b>78.33%</b>	5
<b>Sweden</b>	84.93%	2	84.22%	2	77.90%	2	<b>82.39%</b>	1
<b>United Kingdom</b>	71.01%	12	70.67%	13	71.25%	8	<b>67.13%</b>	14
<b>EU</b>	77.31%		75.80%		68.00%			

Note: Average Monthly Earnings (Full time Employees). No data for Ireland

Legend: e1 - first stage of secondary or lower; e2 - upper secondary; e3 - Higher Education

Source: ESES 1995 (own calculations)

**Table III.15 Gender Pay Ratios with Control for Differences in Education, 1995 (Monthly Earnings for FT employees)**

a. The distribution of education among women equated to that of men within the country

		<b>GPG</b>	<b>Rank</b>	<b>Change in Ratio</b>
<b>BE</b>	<b>Belgium</b>	78.7%	5	-2.4%
<b>DK</b>	<b>Denmark</b>	83.8%	1	1.7%
<b>DE</b>	<b>Germany</b>	78.1%	6	3.0%
<b>GR</b>	<b>Greece</b>	70.9%	13	-0.3%
<b>ES</b>	<b>Spain</b>	71.4%	11	-1.9%
<b>FR</b>	<b>France</b>	75.7%	7	-0.4%
<b>IT</b>	<b>Italy</b>	74.5%	8	0.2%
<b>LU</b>	<b>Luxembourg</b>	80.2%	4	-2.0%
<b>NL</b>	<b>Netherlands</b>	68.2%	14	-0.9%
<b>AT</b>	<b>Austria</b>	72.9%	9	2.5%
<b>PT</b>	<b>Portugal</b>	71.4%	10	0.6%
<b>FI</b>	<b>Finland</b>	81.7%	3	3.4%
<b>SE</b>	<b>Sweden</b>	82.8%	2	0.4%
<b>UK</b>	<b>United Kingdom</b>	71.0%	12	3.8%

Note: Average Monthly Earnings (Full time Employees). No data for Ireland  
Source: ESES 1995 (own calculations)

b. The distribution of education among women and men equated to that of the EU average

		<b>GPG</b>	<b>Rank</b>	<b>Change in Ratio</b>
<b>BE</b>	<b>Belgium</b>	87.1%	5	6.0%
<b>DK</b>	<b>Denmark</b>	87.2%	3	5.0%
<b>DE</b>	<b>Germany</b>	86.3%	6	11.3%
<b>GR</b>	<b>Greece</b>	70.4%	10	-0.8%
<b>ES</b>	<b>Spain</b>	75.4%	8	2.1%
<b>FR</b>	<b>France</b>	89.3%	2	13.2%
<b>IT</b>	<b>Italy</b>	62.2%	12	-12.1%
<b>LU</b>	<b>Luxembourg</b>	72.8%	9	-9.5%
<b>NL</b>	<b>Netherlands</b>	69.0%	11	-0.1%
<b>AT</b>	<b>Austria</b>	55.4%	14	-15.0%
<b>PT</b>	<b>Portugal</b>	57.4%	13	-13.4%
<b>FI</b>	<b>Finland</b>	87.2%	4	8.8%
<b>SE</b>	<b>Sweden</b>	89.5%	1	7.1%
<b>UK</b>	<b>United Kingdom</b>	75.9%	7	8.8%

Source: ESES 1995 (own Calculations)

Note: Average Monthly Earnings (Full time Employees). No data for Ireland

Finally, women's relative pay compared to men varies by age (table III.16). In general, the gender pay gap widens with age, with women's relative pay lowest for those aged over 55 years old. In France and Sweden, the average pay of young women (under the age of 20 years old) is higher than their male counterparts - an effect that is not found in any other age group or in any other country. In contrast to Sweden and France we can observe a relatively wide gender pay gap for young women and men in Belgium and Germany, which in the case of Belgium and the former east Germany disappears among the core working age groups. Overall, the age effects are quite substantial in Greece and in France, but only moderate in West Germany. The most striking finding, however, from disaggregation by age groups is that

no single country is ranked among the top five for all age groups; the former east Germany comes the closest with high ranking for all age groups except the 0-19 age group. At the bottom, two countries are ranked in the bottom five consistently – Austria and the UK.

**Table III.16 Gender Pay Gap by Age Group, 1995 (Monthly Earnings for FT Employees)**

	0_19 y	R	20_24 y	R	25_29 y	R	30_44 y	R	45_54y	R	55_max y	R
<b>BE</b>	78.59%	15	86.13%	9	90.93%	4	86.58%	2	82.33%	2	73.66%	4
<b>DK</b>	97.59%	3	89.58%	6	90.03%	5	82.83%	5	77.58%	4	78.18%	2
<b>DEW</b>	79.35%	14	82.98%	13	85.38%	10	77.72%	10	70.62%	10	68.98%	7
<b>EX_DD</b>	80.03%	13	91.16%	3	90.97%	3	87.75%	1	84.59%	1	80.91%	1
<b>GR</b>	89.52%	7	88.26%	7	89.65%	6	77.48%	12	62.16%	14	57.24%	14
<b>ES</b>	88.31%	9	84.65%	11	86.56%	8	78.59%	9	75.80%	5	71.79%	6
<b>FR</b>	106.15%	2	98.92%	1	94.10%	2	77.50%	11	69.76%	11	66.37%	12
<b>IT</b>	93.41%	4	89.73%	5	86.11%	9	80.66%	7	71.47%	9	68.55%	8
<b>LU</b>	91.66%	5	96.34%	2	97.61%	1	85.95%	3	71.81%	8	67.95%	9
<b>NL</b>	88.38%	8	85.48%	10	85.19%	11	80.99%	6	66.28%	13	67.90%	10
<b>AT</b>	83.86%	12	76.94%	15	80.37%	14	72.40%	14	68.53%	12	55.94%	15
<b>PT</b>	91.52%	6	86.49%	8	79.41%	15	73.44%	13	72.19%	7	67.36%	11
<b>FI</b>	87.66%	10	83.90%	12	84.01%	12	79.01%	8	74.62%	6	72.48%	5
<b>SE</b>	108.39%	1	90.90%	4	89.23%	7	84.59%	4	78.49%	3	77.07%	3
<b>UK</b>	84.47%	11	79.44%	14	81.42%	13	69.08%	15	57.62%	15	61.51%	13

Average Monthly Earnings (Full time Employees). Overtime included. No data for Ireland  
Source: ESES 1995 (own calculations)

Cross-country comparison is always a difficult task and the analysis of the gender pay gap is no exception given the range of factors that underpin changing patterns and trends. Nevertheless, it is possible to develop a clearer view on the gender pay gaps and income gaps in the member states by recognising the need for a more differentiated analysis. Recommendations based on only one or two indicators may be misleading and can easily be rejected by the countries/governments involved where they are able to identify a specific causal factor that may be beyond their immediate control (such as the effect of changing demographic patterns). Ideally, a more complete listing of indicators might include the following:

- The gender pay gap needs to be considered alongside more general indicators of wage structure, including female and male concentration in low paid employment, inter-decile ratios for men and women and the overall level of wage inequality
- The gender pay gap needs to be supplemented by data on gender pay gaps within labour market groups (such as by occupation, sector, age and education), but these data must also be supplemented by information on both the level of women's average pay relative to the overall average for all male full-time workers and the size of the labour market group (for example, data on the gender gap in the public sector needs to be supplemented by data on the pay of women in the public sector relative to all male full-time workers and the proportion of all workers in the public sector)

- The gender pay gap should be calculated with and without part-time workers to determine the impact of part-time work on the indicator
- The gender income gap ought to distinguish between different sources of income (from land, capital and labour)
- The gender income gap ought to be considered alongside other indicators of income structure, including the ratio of men's and women's average total income and inter-decile ratios for men and for women.

In the next section we limit our recommendations to what we judge to be a practical set of alternative indicators that ought to be used for the measurement of the gender pay gap and the gender income gap.

### **III.4. Proposals for new indicators and revisions of existing data**

There are three general implications that follow from our discussion of the limitations with both the ECHP data source and the two current indicators. First, use of ECHP *hourly* pay data ought to be recognised as unreliable and as such should not be used. Second, greater use ought to be made of supplementary indicators, which provide a more comprehensive picture of differences in women's and men's position in the pay and income structures across different member states. Third, the chosen indicators ought to be based on both sources of data - ECHP and ESES - wherever possible.

The following two lists set out proposals for new gender indicators on pay and income to replace the current indicators EO<sub>5</sub> and EO<sub>6</sub>.

#### **1) *Gender pay gap***

- the ratio of women's annual (or monthly) net earnings to men's (ECHP) and the ratio of women's hourly gross pay to men's (ESES);
- the ratio of all female part-timers' hourly pay to male full-timers' hourly pay excluding overtime (ESES);
- the proportion of female workers earning less than 2/3 of the median annual earnings of male full-timers (ECHP) and the proportion of female workers earning less than 2/3 of the median hourly pay of male full-timers (ESES).



2) *Gender income gap*

- the ratio of women's average annual total income to men's, covering all working-age population (ECHP);
- the ratio of women's average annual labour income to men's, covering all employees and self-employed (ECHP);
- the ratio of women's average annual wage income to men's, covering all employees (ECHP).

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## **IV. Indicators relating to Reconciling Work and Family Life**

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### **IV. 1. Introduction**

Women do most of the unpaid care work involved in raising children or looking after dependent elder relatives and neighbours. These time-intensive activities constitute a 'second shift' to the total volume of work that women do, with the result that they often impact on the volume of employment that women undertake. Men's time contribution to this care work is much smaller, although there is some evidence to suggest that it is increasing slowly among younger generations (Gershuny et al. 1994). Therefore, from a gender mainstreaming perspective on employment policy it is important to monitor the impact of care responsibilities on women's employment patterns vis-à-vis those of men's; and to monitor changes in the gender division of household responsibilities.

The rest of this chapter is organised into 3 sections. Section two examines indicators of parental employment. Section three considers the indicators required to monitor the reconciliation between employment and family life. Section four summarises the advantages and disadvantages of the current indicators used to monitor these issues in the European Employment Strategy, and makes recommendations for improving these indicators.

### **IV. 2. Trends in Employment by Parenthood**

In this section we present and discuss some indicators of the employment impact of parental responsibilities.

The analysis uses the EUROSTAT Labour Force Survey (1993-2000), which provides harmonized comparable data for the EU member states. There are at least two reasons for choosing 1993 as the starting year. Firstly, 1993 was the first year in a period of employment recovery in the business cycle in many countries. Secondly, the methodology of the LFS was changed in 1992 to incorporate new definitions, making comparisons with earlier years more difficult. It should be noted that data on parenthood is not available from the LFS for Sweden, Denmark or Finland because of the way that the data is collected in those countries, and so the analysis on this measure is only possible for the other member states.

The starting point for the analysis is the current indicators that are proposed for monitoring the reconciliation of work and family life (guideline 18) in the Commission's Employment Guidelines are. These are the employment impact of parenthood, by sex (EO7); the gender

gap in the employment impact of parenthood (EO8); and the rate of involuntary part-time employment (EO9).

We have used the recommended indicator of parenthood that is defined as the presence of a young child under 6 years old ['Has a child/does not have a child under 6 years old']. This restrictive definition of parenthood is used because previous research has shown that it is the impact on employment patterns of having small children in the household that is the critical issue and not so much the number of children (except, possibly, in specific countries), not least because employment patterns at this stage have a long-run impact on subsequent employment careers. The threshold of six years is used because this is the compulsory school entry age in most EU countries.

The population focus will be the 20-49 year age group. Excluding young labour market entrants and older workers, permits the impact of parenthood to be assessed against the situation for 'non-parents' of a similar age, while at the same time allowing for the older average age of many parents of young children due to the trend for the postponement of parenthood. Non parents for these purposes are defined as those without any children of 15 or younger.

We have also examined the results obtained when using a number of other indicators at different stages in the analysis. This includes a focus on the presence of a very young child (0-2 years), and the impact of the youngest child being older (7-14 years). We have also examined the employment impact of motherhood by education level, and between lone mothers and those in couple households.

The employment rate gap is measured by the absolute percentage point difference. This measure has a straightforward interpretation that is easy to reproduce and calculate. Sometimes, the relative gap (ratio) is used as well. We extend the analysis of employment rates by considering full-time equivalent employment rates to take into account national differences in rates of part-time work, particularly among women. We also analyse differences in the distribution of working-time between short part-time, long part-time, medium full-time and long full-time. Finally, we also consider rates of involuntary part-time work.

We start by comparing the employment impact of having a young child of different ages on women's employment (section IV.2.1). Then we compare the employment impact of parenthood on the total employment rates for men and women (section IV.2.2) and the volume of their working hours and the full-time equivalent employment rates (sections IV.

2.3 and IV. 2.4). The following two sections look at differences in the employment impact of motherhood for different groups of women: by education level (section IV. 2.5), and between lone mothers and those in couple households (section 2.6). Finally, we examine rates of involuntary part-time work (section IV. 2.7).

#### IV. 2.1 The impact of motherhood on employment rates of women

Table IV.2.1a compares the employment rates for women aged 20-49 according to whether or not they are mothers, summarized in the calculation of the 'motherhood gap' in employment rates. The 'young motherhood gap' compares the effect of the presence of a young child (0-6 years) and the 'older motherhood gap' compares the effect of the presence of an older child (7-14 years).

The table shows that being a mother of a child aged 0-6 years has a negative impact on the employment rates of women in all European Union (EU) member states although in Portugal the impact is relatively small. The negative impact of having a young child is highest in Germany, followed by the UK. Both countries, with relatively high employment rates for women without young children have a low share of children 0-3 years old in publicly financed services (Appendix table IV.1).

When the youngest child is aged 7-14 years this also has a negative impact on the employment rates of women in all EU member states except Portugal where the gap is close to zero. The negative impact is highest in Ireland followed by Luxembourg. However, generally speaking, the negative impact of children aged 7-14 years is smaller than that of children aged 0-6 years. For most countries the ranks do not change that significantly: the exception is the UK where the impact of older children is much smaller than for young children.

**Table IV. 2.1.a Employment Rates for women 20-49 years old, by motherhood status in 2000**

	No child	Impact of a young child			Impact of an older child		
		Child 0-6 years	Absolute 'young motherhood' gap	Rank position by 'young motherhood' gap	Child 7-14 yrs	Absolute 'older motherhood' gap	Rank position by 'older motherhood gap'
<b>Austria</b>	79.88	68.28	11.6	5	73.21	6.7	5
<b>Belgium</b>	76.57	68.92	7.6	3	70.13	6.4	4
<b>Germany</b>	80.80	53.75	27.0	12	70.89	9.9	9
<b>Spain</b>	56.84	45.34	11.5	4	47.05	9.8	7
<b>France</b>	75.07	59.19	15.9	7	72.51	2.6	3
<b>Greece</b>	53.63	49.91	3.7	2	52.95	0.7	2
<b>Ireland</b>	67.66	44.77	22.9	10	43.48	24.2	12
<b>Italy</b>	58.48	46.68	11.8	6	48.64	9.8	8
<b>Luxembourg</b>	74.80	56.07	18.7	9	59.08	15.7	11
<b>Netherlands</b>	81.99	64.02	18.0	8	66.84	15.2	10
<b>Portugal</b>	76.17	75.03	1.1	1	76.70	-0.5	1
<b>UK (1)</b>	83.08	56.47	26.6	11	73.31	9.8	6

**Table IV. 2.1b. Employment Rates for married women 20-49 years old, by motherhood status in 2000**

	No child	Impact of a young child			Impact of an older child		
		Child 0-6 years	Absolute 'young motherhood' gap	Rank position by 'young motherhood' gap	Child 7-14 yrs	Absolute 'older motherhood' gap	Rank position by 'older motherhood gap'
<b>Austria</b>	75.94	66.24	9.70	6	70.20	5.74	7
<b>Belgium</b>	71.47	70.04	1.43	2	71.52	-0.05	3
<b>Germany</b>	78.52	53.16	25.36	11	69.72	8.80	10
<b>Spain</b>	50.80	44.90	5.91	4	45.20	5.60	6
<b>France</b>	74.48	58.91	15.56	10	72.20	2.28	4
<b>Greece</b>	51.69	49.40	2.29	3	52.18	-0.48	2
<b>Ireland</b>	:	:	:	:	:	:	:
<b>Italy</b>	53.92	45.97	7.96	5	47.21	6.72	8
<b>Luxembourg</b>	68.05	54.39	13.66	9	54.03	14.02	11
<b>Netherlands</b>	74.38	64.40	9.98	7	67.28	7.11	9
<b>Portugal</b>	74.47	75.00	-0.53	1	75.84	-1.37	1
<b>UK (1)</b>	83.93	64.29	10.86	8	78.47	5.46	5

(1) Employment rates for women with children 0-6 and 7-14 correspond to 1999.

Note: Data are not available for Denmark, Finland and Sweden. Data only includes Household Head and Spouse. Ascendant relatives or other relatives excluded.

Source: ELFS (own calculations).

Table IV.2.1b provides the same data but for married women. This will exclude both those households with two parents but where the parents are not married and single parent households. Young children still has the biggest impact on women in Germany, but this time the second largest impact is found in France not the UK. The UK is known to have a high share of non-active lone parents that may explain this change. The impact of young children on employment rates of married women in Portugal is in fact positive rather than negative. The impact of older children is again below that for younger children with particularly strong effects in France, which changes ranks by six places.

Although family sizes are generally falling to one or two children across the EU, it should still be noted that the number of children, regardless of their age, has an impact on the employment rate of mothers. In general, the employment rates of mothers falls as the number of children rises, particularly with the arrival of the third child. The employment rate of mothers with two children is at least 5 percentage points lower than the employment rate of mothers with one child in Austria, Germany, France, Ireland, Italy, and Luxembourg. The employment rate of mothers with three or more children is at least 15 percentage points lower than that of mothers with one child in all the countries shown except the Netherlands, Greece and Spain ( see appendix table IV.2) .

## **IV.2.2 Trends in employment rates for men and women and the impact of parenthood on the gender gap in employment rates**

Table IV. 2.2 presents the employment rates for men and women aged 20-49 years, according to the age of their youngest child. The 'gender gap' is obtained by subtracting the employment rate of women from that for men. The availability of public services for caring children across EU countries can be used as a reference for comparison (Appendix table IV.1, at the end of the report).

The table shows that in the 20-49 year age group women have lower employment rates than men even among those who do not have a young child (1993 and 2000 data). The size of the gender gap varies a great deal between countries. For instance, the gender gap for childless people was highest in Spain (39.64 in 1993 and 33.12 in 2000) and lowest in the United Kingdom (3.10 in 1993 and 2.67 in 1999). In all EU member states, and without exception, the gender gap is more pronounced among parents. In most EU countries the gender gap is greatest among parents with a young child (0-6 years).

There is a positive development over the period for the size of the gender gap in all countries has fallen both for those with and without a young child. This is mainly a consequence of female employment rates growing, associated with women being the main beneficiaries of employment growth in this period of the economic cycle.

## **IV.2.3 The impact of parenthood on men and women's working time**

Table IV.2.3 presents information on the volume of hours worked by employed men and women according to whether or not they have a young child. The analysis distinguishes between the categories of 'short part-time', 'long part-time', 'medium full-time', and 'long full-time' hours, and the changes between 1993 and 2000 can be examined by comparing tables IV.2.2 and IV.2.3. This reveals the extent to which gender differences in working time can be attributed to the impact of motherhood. The 'gender difference distribution' is obtained by subtracting the female percentage distribution from the male distribution.

The tables shows that a higher proportion of men than women work long full-time working hours, mirrored by the higher proportion of women who work short and long part-time hours. This is summarised with the 'gender difference distribution score', where a positive sign (+) indicates a higher proportion of employed men are concentrated in this working-time category, and a negative sign (-) indicates that a higher proportion of employed women are concentrated in this working-time category. In other words, it shows the persistence of the well-know pattern that part-time work is largely women's work and long full-time hours is mainly done by men.

**Table IV.2.2. Employment rates for men and women 20-49 years old in 1993 and 2000**

		1993			2000		
		No child	0-6 years	7-14 yrs	No Child	0-6 years	7-14 yrs
Austria (1)	male	88.30	94.60	95.22	89.54	94.82	94.97
	female	77.43	66.95	68.22	79.88	68.28	73.21
	<b>gender gap</b>	<b>10.87</b>	<b>27.65</b>	<b>27.00</b>	<b>9.66</b>	<b>26.54</b>	<b>21.76</b>
Belgium	male	89.12	92.62	94.53	88.78	94.47	95.71
	female	67.57	62.09	63.18	76.57	68.92	70.13
	<b>gender gap</b>	<b>21.55</b>	<b>30.53</b>	<b>31.36</b>	<b>12.21</b>	<b>25.55</b>	<b>25.58</b>
Germany	male	85.62	91.78	93.58	85.75	91.51	92.43
	female	76.90	47.29	66.48	80.80	53.75	70.89
	<b>gender gap</b>	<b>8.72</b>	<b>44.50</b>	<b>27.10</b>	<b>4.95</b>	<b>37.75</b>	<b>21.54</b>
Spain	male	82.62	84.91	86.96	89.95	93.44	91.78
	female	42.98	32.81	35.24	56.84	45.34	47.05
	<b>gender gap</b>	<b>39.64</b>	<b>52.11</b>	<b>51.72</b>	<b>33.12</b>	<b>48.11</b>	<b>44.72</b>
France	male	84.78	90.53	92.68	84.30	91.86	93.59
	female	72.47	56.85	69.54	75.07	59.19	72.51
	<b>gender gap</b>	<b>12.30</b>	<b>33.69</b>	<b>23.14</b>	<b>9.23</b>	<b>32.66</b>	<b>21.08</b>
Greece	male	86.24	95.60	94.96	85.90	96.32	95.15
	female	47.79	42.63	47.79	53.63	49.91	52.95
	<b>gender gap</b>	<b>38.46</b>	<b>52.97</b>	<b>47.17</b>	<b>32.27</b>	<b>46.41</b>	<b>42.20</b>
Ireland (2)	male	75.29	81.18	80.09	80.21	86.29	84.18
	female	61.83	35.14	33.74	67.66	44.77	43.48
	<b>gender gap</b>	<b>13.46</b>	<b>46.04</b>	<b>46.35</b>	<b>12.55</b>	<b>41.52</b>	<b>40.70</b>
Italy	male	91.84	93.41	94.16	90.65	93.48	93.54
	female	52.34	41.68	44.66	58.48	46.68	48.64
	<b>gender gap</b>	<b>39.50</b>	<b>51.73</b>	<b>49.50</b>	<b>32.18</b>	<b>46.80</b>	<b>44.89</b>
Luxembourg	male	94.65	96.64	96.69	96.27	96.89	96.04
	female	68.01	41.96	48.95	74.80	56.07	59.08
	<b>gender gap</b>	<b>26.64</b>	<b>54.68</b>	<b>47.74</b>	<b>21.47</b>	<b>40.82</b>	<b>36.96</b>
Netherlands	male	84.99	92.13	93.43	91.20	94.55	95.27
	female	71.64	45.63	54.79	81.99	64.02	66.84
	<b>gender gap</b>	<b>13.35</b>	<b>46.50</b>	<b>38.64</b>	<b>9.20</b>	<b>30.53</b>	<b>28.43</b>
Portugal	male	91.35	95.64	94.91	91.46	95.82	95.98
	female	69.42	70.24	72.04	76.17	75.03	76.70
	<b>gender gap</b>	<b>21.93</b>	<b>25.40</b>	<b>22.87</b>	<b>15.30</b>	<b>20.79</b>	<b>19.28</b>
UK (3)	male	84.19	84.18	87.37	85.75	89.82	89.61
	female	81.09	48.99	71.41	83.08	56.47	73.31
	<b>gender gap</b>	<b>3.10</b>	<b>35.19</b>	<b>15.96</b>	<b>2.67</b>	<b>33.35</b>	<b>16.30</b>

(1) Employment rates correspond to the years 1995 and 2000. (2) Employment rates correspond to the years 1993 and 1997. (3) Employment rates correspond to the years 1993 and 1999.

Note: Data are not available for Denmark, Finland and Sweden. Data only includes Household Head and Spouse. Ascendant relatives or other relatives excluded.

Source: ELFS (own calculations).



**Table IV.2.3. Working time distribution by short part-time (SPT), long part-time (LPT), medium full-time (MFT) and long full-time (LFT) by gender in 2000.**

		No Child				Child aged 0-6yrs			
		SPT	LPT	MFT	LFT	SPT	LPT	MFT	LFT
		Row %				Row %			
<b>Austria</b>	Male	0.70	1.20	33.10	65.00	0.60	1.20	30.60	67.60
	Female	4.30	12.30	30.40	53.00	10.80	30.00	24.30	34.90
<b>Gender difference distribution</b>		<b>-3.60</b>	<b>-11.10</b>	<b>2.70</b>	<b>12.00</b>	<b>-10.20</b>	<b>-28.80</b>	<b>6.30</b>	<b>32.70</b>
<b>Belgium</b>	Male	1.80	4.10	52.10	42.00	1.20	3.30	46.90	48.60
	Female	11.00	18.00	48.90	22.10	13.30	25.40	45.80	15.50
<b>Gender difference distribution</b>		<b>-9.20</b>	<b>-13.90</b>	<b>3.20</b>	<b>19.90</b>	<b>-12.10</b>	<b>-22.10</b>	<b>1.10</b>	<b>33.10</b>
<b>Germany</b>	Male	2.90	2.10	38.60	56.40	1.10	1.20	39.10	58.60
	Female	9.40	12.40	43.90	34.40	31.60	21.50	27.30	19.60
<b>Gender difference distribution</b>		<b>-6.50</b>	<b>-10.30</b>	<b>-5.30</b>	<b>22.00</b>	<b>-30.50</b>	<b>-20.30</b>	<b>11.80</b>	<b>39.00</b>
<b>Spain</b>	Male	0.50	1.50	13.20	84.80	0.20	0.90	12.70	86.10
	Female	5.70	7.90	22.30	64.10	6.30	10.60	29.80	53.40
<b>Gender difference distribution</b>		<b>-5.20</b>	<b>-6.40</b>	<b>-9.10</b>	<b>20.70</b>	<b>-6.10</b>	<b>-9.70</b>	<b>-17.10</b>	<b>32.70</b>
<b>France</b>	Male	1.60	3.30	65.20	29.90	1.00	3.00	63.80	32.20
	Female	6.50	12.20	63.60	17.70	8.70	18.80	59.20	13.30
<b>Gender difference distribution</b>		<b>-4.90</b>	<b>-8.90</b>	<b>1.60</b>	<b>12.20</b>	<b>-7.70</b>	<b>-15.80</b>	<b>4.60</b>	<b>18.90</b>
<b>Greece</b>	Male	0.80	1.70	13.70	83.90	0.30	2.30	11.60	85.70
	Female	2.60	5.30	21.40	70.70	3.50	7.90	24.10	64.50
<b>Gender difference distribution</b>		<b>-1.80</b>	<b>-3.60</b>	<b>-7.70</b>	<b>13.20</b>	<b>-3.20</b>	<b>-5.60</b>	<b>-12.50</b>	<b>21.20</b>
<b>Ireland (1)</b>	Male	1.90	4.00	31.00	63.20	1.10	3.90	27.80	67.30
	Female	6.20	10.60	48.00	35.30	13.60	23.60	39.60	23.20
<b>Gender difference distribution</b>		<b>-4.30</b>	<b>-6.60</b>	<b>-17.00</b>	<b>27.90</b>	<b>-12.50</b>	<b>-19.70</b>	<b>-11.80</b>	<b>44.10</b>
<b>Italy</b>	Male	2.60	2.20	20.80	74.40	2.50	1.70	20.50	75.30
	Female	6.30	13.00	30.90	49.90	10.20	20.80	30.80	38.20
<b>Gender difference distribution</b>		<b>-3.70</b>	<b>-10.80</b>	<b>-10.10</b>	<b>24.50</b>	<b>-7.70</b>	<b>-19.10</b>	<b>-10.30</b>	<b>37.10</b>
<b>Luxembourg</b>	Male	0.10	1.50	5.60	92.70	0.40	0.80	2.30	96.50
	Female	4.90	15.40	9.60	70.10	7.70	32.30	10.30	49.70
<b>Gender difference distribution</b>		<b>-4.80</b>	<b>-13.90</b>	<b>-4.00</b>	<b>22.60</b>	<b>-7.30</b>	<b>-31.50</b>	<b>-8.00</b>	<b>46.80</b>
<b>Netherlands</b>	Male	5.30	3.50	41.20	50.00	1.50	3.20	39.10	56.30
	Female	16.60	18.10	45.00	20.30	43.30	37.40	13.80	5.50
<b>Gender difference distribution</b>		<b>-11.30</b>	<b>-14.60</b>	<b>-3.80</b>	<b>29.70</b>	<b>-41.80</b>	<b>-34.20</b>	<b>25.30</b>	<b>50.80</b>
<b>Portugal</b>	Male	0.30	1.30	16.90	81.50	0.20	0.70	12.20	87.00
	Female	4.50	7.60	27.60	60.30	2.70	6.10	24.20	67.10
<b>Gender difference distribution</b>		<b>-4.20</b>	<b>-6.30</b>	<b>-10.70</b>	<b>21.20</b>	<b>-2.50</b>	<b>-5.40</b>	<b>-12.00</b>	<b>19.90</b>
<b>UK(2)</b>	Male	1.70	1.90	20.40	76.00	1.40	2.10	18.40	78.10
	Female	8.90	10.70	37.70	42.80	35.30	25.40	23.30	16.00
<b>Gender difference distribution</b>		<b>-7.20</b>	<b>-8.80</b>	<b>-17.30</b>	<b>33.20</b>	<b>-33.90</b>	<b>-23.30</b>	<b>-4.90</b>	<b>62.10</b>

(1) The most recent available data is for 1997, (2) The most recent available data is for 1999.

Note: Data are not available for Denmark, Finland and Sweden. Data only includes Household Head and Spouse in the 20-49 age bracket. Ascendant relatives or other relatives excluded.

Source: ELFS (own calculations).

**Table IV. 2.4. Working time distribution by short part-time (SPT), long part-time (LPT), medium full-time (MFT) and long full-time (LFT) by gender in 1993.**

		No Child				0-6yrs			
		SPT	LPT	MFT	LFT	SPT	LPT	MFT	LFT
		Row %				Row %			
<b>Austria (1)</b>	Male	0.8	1.40	32.40	65.40	0.20	1.30	32.20	66.30
	Female	4.00	11.80	29.70	54.40	9.20	21.80	22.20	46.80
<b>Gender difference distribution</b>		<b>-3.20</b>	<b>-10.40</b>	<b>2.70</b>	<b>11.00</b>	<b>-9.00</b>	<b>-20.50</b>	<b>10.00</b>	<b>19.50</b>
<b>Belgium</b>	Male	1.00	3.40	60.70	34.90	0.50	3.30	58.00	38.20
	Female	9.70	16.30	53.40	20.60	17.10	23.80	43.50	15.60
<b>Gender difference distribution</b>		<b>-8.70</b>	<b>-12.90</b>	<b>7.30</b>	<b>14.30</b>	<b>-16.60</b>	<b>-20.50</b>	<b>14.50</b>	<b>22.60</b>
<b>Germany</b>	Male	1.80	1.00	51.50	45.70	0.60	0.60	49.00	49.80
	Female	7.30	11.50	51.20	30.00	21.70	20.30	27.30	30.70
<b>Gender difference distribution</b>		<b>-5.50</b>	<b>-10.50</b>	<b>0.30</b>	<b>15.70</b>	<b>-21.10</b>	<b>-19.70</b>	<b>21.70</b>	<b>19.10</b>
<b>Spain</b>	Male	0.40	1.00	11.70	87.00	0.40	0.50	10.80	88.30
	Female	5.20	7.20	23.50	64.10	6.00	9.60	24.50	59.90
<b>Gender difference distribution</b>		<b>-4.80</b>	<b>-6.20</b>	<b>-11.80</b>	<b>22.90</b>	<b>-5.60</b>	<b>-9.10</b>	<b>-13.70</b>	<b>28.40</b>
<b>France</b>	Male	1.70	3.40	57.00	37.90	0.80	2.20	58.50	38.40
	Female	6.40	12.30	58.80	22.50	8.00	16.80	59.20	16.10
<b>Gender difference distribution</b>		<b>-4.70</b>	<b>-8.90</b>	<b>-1.80</b>	<b>15.40</b>	<b>-7.20</b>	<b>-14.60</b>	<b>-0.70</b>	<b>22.30</b>
<b>Greece</b>	Male	1.00	3.00	13.40	82.60	0.70	2.70	13.60	82.90
	Female	2.40	7.60	18.70	71.30	3.90	11.50	23.80	60.70
<b>Gender difference distribution</b>		<b>-1.40</b>	<b>-4.60</b>	<b>-5.30</b>	<b>11.30</b>	<b>-3.20</b>	<b>-8.80</b>	<b>-10.20</b>	<b>22.20</b>
<b>Ireland</b>	Male	1.20	3.30	29.90	65.70	1.00	3.50	29.50	66.00
	Female	5.80	11.30	45.80	37.10	12.30	20.90	41.50	25.30
<b>Gender difference distribution</b>		<b>-4.60</b>	<b>-8.00</b>	<b>-15.90</b>	<b>28.60</b>	<b>-11.30</b>	<b>-17.40</b>	<b>-12.00</b>	<b>40.70</b>
<b>Italy</b>	Male	2.30	1.80	22.00	74.00	2.20	1.40	21.90	74.50
	Female	6.70	12.00	30.00	51.30	10.10	17.20	33.20	39.40
<b>Gender difference distribution</b>		<b>-4.40</b>	<b>-10.20</b>	<b>-8.00</b>	<b>22.70</b>	<b>-7.90</b>	<b>-15.80</b>	<b>-11.30</b>	<b>35.10</b>
<b>Luxembourg</b>	Male	0.40	1.20	3.00	95.40		1.00	1.90	97.10
	Female	4.70	11.90	9.60	73.80	10.10	27.70	8.30	53.90
<b>Gender difference distribution</b>		<b>-4.30</b>	<b>-10.70</b>	<b>-6.60</b>	<b>21.60</b>		<b>-26.70</b>	<b>-6.40</b>	<b>43.20</b>
<b>Netherlands</b>	Male	4.80	2.90	34.70	57.60	0.90	1.80	34.20	63.10
	Female	17.50	18.10	34.90	29.50	49.90	31.00	11.60	7.60
<b>Gender difference distribution</b>		<b>-12.70</b>	<b>-15.20</b>	<b>-0.20</b>	<b>28.10</b>	<b>-49.00</b>	<b>-29.20</b>	<b>22.60</b>	<b>55.50</b>
<b>Portugal</b>	Male	0.70	2.20	17.00	80.10	1.00	1.60	13.50	83.90
	Female	4.20	8.20	27.80	59.80	4.60	8.40	24.30	62.70
<b>Gender difference distribution</b>		<b>-3.50</b>	<b>-6.00</b>	<b>-10.80</b>	<b>20.30</b>	<b>-3.60</b>	<b>-6.80</b>	<b>-10.80</b>	<b>21.20</b>
<b>UK</b>	Male	1.30	1.50	21.90	75.20	1.00	1.30	19.40	78.40
	Female	11.00	12.00	39.60	37.40	40.90	22.70	21.60	14.80
<b>Gender difference distribution</b>		<b>-9.70</b>	<b>-10.50</b>	<b>-17.70</b>	<b>37.80</b>	<b>-39.90</b>	<b>-21.40</b>	<b>-2.20</b>	<b>63.60</b>

(1) The available data is for 1995.

Note: Data are not available for Denmark, Finland and Sweden. Data only includes Household Head and Spouse in the 20-49 Age Bracket. Ascendant relatives or other relatives excluded.

Source: ELFS (own calculations).

The second important point is that the gender differentiation in the volume of working-time is more pronounced among parents with a young child than among employed men and women without young child. This is particularly the case for short part-time hours and for long full-time hours for those with a young child. This greater gender differentiation with parenthood is largely because mothers with a young child tend to reduce the hours they work in employment, but the table also shows that in many countries fathers with a young child are slightly more likely to work long full-time hours than employed men without a young child.

Both of these patterns have persisted between 1993 and 2000, but there has been some change in the magnitude of the differences over time. Between 1993 and 2000, the gender difference has become more pronounced for people without children in all countries except Ireland. This development should make us cautious about the degree to which we should expect an erosion of gender differences with the mere passage of time. The trend is more varied for people with a young child. In comparison with the situation in 1993, the gender difference distribution has increased in some countries (Austria, Belgium, Germany, Spain, Ireland [1997 data], Italy and Luxembourg) but has decreased in others (France, Greece, the Netherlands, Portugal and the United Kingdom [1999 data]).

Table IV.2.5 presents the 'motherhood differential distribution' of working time, which illustrates the differences in the distribution of the volume of working hours for employed women according to whether or not they have a young child. The results shown have been obtained by subtracting the working-time distribution of women without a child under 15 from the working-time distribution of employed mothers with a young child. The trend can be examined between 1993 and 2000. The availability of part-time employment across the EU can be used as a reference for comparison (Appendix table IV.1).

Employed mothers are less likely to work long full-time hours and more likely to work part-time, particularly long part-time hours than employed women without a young child. The Netherlands, UK and Germany are the countries where the differentials rates of involvement in part-time work between non-mothers and mothers are particularly pronounced. The differential in working-time distributions between women who do and do not have a young child has become less pronounced over the period from 1993 to 2000.

**Table IV. 2.5. Motherhood differential distribution of working time, by short part-time (SPT), long part-time (LPT), medium full-time (MFT) and long full-time (LFT) in 1993 and 2000.**

	2000				1993			
	SPT	LPT	MFT	LFT	SPT	LPT	MFT	LFT
	Row %				Row %			
<b>Austria</b>	6.50	17.70	-6.10	-18.10	5.20	10.00	-7.50	-7.60
<b>Belgium</b>	2.30	7.40	-3.10	-6.60	7.40	7.50	-9.90	-5.00
<b>Germany</b>	22.20	9.10	-16.60	-14.80	14.40	8.80	-23.90	-0.70
<b>Spain</b>	0.60	2.70	7.50	-10.70	0.80	2.40	1.00	-4.20
<b>France</b>	2.20	6.60	-4.40	-4.40	1.60	4.50	0.40	-6.40
<b>Greece</b>	0.90	2.60	2.70	-6.20	1.50	3.90	5.10	-10.60
<b>Ireland (1)</b>	7.40	13.00	-8.40	-12.10	6.50	9.60	-4.30	-11.80
<b>Italy</b>	3.90	7.80	-0.10	-11.70	3.40	5.20	3.20	-11.90
<b>Luxembourg</b>	2.80	16.90	0.70	-20.40	5.40	15.80	-1.30	-19.90
<b>Netherlands</b>	26.70	19.30	-31.20	-14.80	32.40	12.90	-23.30	-21.90
<b>Portugal</b>	-1.80	-1.50	-3.40	6.80	0.40	0.20	-3.50	2.90
<b>UK(2)</b>	26.40	14.70	-14.40	-26.80	-29.90	10.70	-18.00	-22.60

(1)The available data is for 1997 and 1993.

(2)The available data is for 1999 and 1993.

Note: Data are not available for Denmark, Finland and Sweden. Data only includes Household Head and Spouse in the 20-49 Age Bracket.

Ascendant relatives or other relatives excluded.

Source: ELFS (own calculations).

#### **IV. 2.4 Full-time equivalent (FTE)<sup>20</sup> employment rates for men and women by parental status**

The significant national and gender differences in the distribution of working time across short and long part-time employment and full-time hours employment, make it important to assess the full-time equivalent (FTE) employment rates. This is shown in table IV.2.6, calculated using member state's full-time average hours for employees. Male FTE employment rates are 90% or more regardless of their parental responsibilities and only drop below 85% in a few countries. The FTE rates are lower for women, reflecting their greater involvement in part-time work. The FTE rates for women generally increased between 1993 and 1999, even in countries with high rates of part-time work such as the Netherlands and the UK.

<sup>20</sup> Full-time equivalent employment rates are constructed by calculating total volume of work, using usual hours of work in main job, and dividing by the average full-time hours for employees in the member state

**Table IV.2.6. Full-time Equivalent Employment rates for men and women 20-49 years old in 1999 and 1993.**

		1999			1993			
		No Child	0-6 years	7-14 yrs	No Child	0-6 years	7-14 years	
<b>Austria (1)</b>	<i>Male</i>	91.43	97.41	98.09	<i>Male</i>	90.41	100.63	100.10
	<i>Female</i>	74.79	52.85	57.91	<i>Female</i>	72.88	58.19	58.82
<b>Belgium</b>	<i>Male</i>	91.47	100.79	99.87	<i>Male</i>	93.30	98.77	100.74
	<i>Female</i>	65.87	56.57	55.84	<i>Female</i>	61.42	51.17	53.07
<b>Germany</b>	<i>Male</i>	85.98	95.08	96.45	<i>Male</i>	87.36	95.05	97.28
	<i>Female</i>	70.09	34.96	49.90	<i>Female</i>	69.95	35.75	52.23
<b>Spain</b>	<i>Male</i>	91.13	96.62	95.81	<i>Male</i>	85.28	88.71	90.66
	<i>Female</i>	49.01	37.33	39.31	<i>Female</i>	40.61	29.66	32.12
<b>France</b>	<i>Male</i>	84.88	93.67	98.02	<i>Male</i>	87.55	95.35	98.96
	<i>Female</i>	65.40	48.14	60.78	<i>Female</i>	66.22	48.70	60.58
<b>Greece</b>	<i>Male</i>	93.78	107.74	105.67	<i>Male</i>	95.05	107.32	107.70
	<i>Female</i>	52.03	47.09	52.93	<i>Female</i>	48.02	41.35	49.49
<b>Ireland (2)</b>	<i>Male</i>	86.74	97.38	92.67	<i>Male</i>	83.89	92.17	89.66
	<i>Female</i>	62.09	35.60	33.86	<i>Female</i>	57.07	28.83	27.09
<b>Italy</b>	<i>Male</i>	96.10	100.07	101.39	<i>Male</i>	97.50	101.28	102.72
	<i>Female</i>	53.55	40.23	42.20	<i>Female</i>	50.00	37.05	41.29
<b>Luxembourg</b>	<i>Male</i>	96.83	100.66	102.21	<i>Male</i>	98.96	103.65	103.95
	<i>Female</i>	68.99	38.80	44.71	<i>Female</i>	65.23	35.21	40.97
<b>Netherlands</b>	<i>Male</i>	86.77	97.44	96.59	<i>Male</i>	82.31	95.08	96.47
	<i>Female</i>	63.32	32.24	36.57	<i>Female</i>	55.60	22.34	27.54
<b>Portugal</b>	<i>Male</i>	95.66	100.69	100.14	<i>Male</i>	97.51	103.87	104.51
	<i>Female</i>	71.61	68.37	71.49	<i>Female</i>	67.44	67.30	69.72
<b>UK</b>	<i>Male</i>	87.25	92.38	93.97	<i>Male</i>	87.68	87.69	92.63
	<i>Female</i>	70.60	32.39	46.70	<i>Female</i>	67.97	26.74	44.12

(1) Data available for 1999 and 1995.

(2) Data available for 1997 and 1993.

Note: Data are not available for Denmark, Finland and Sweden. Data only includes Household Head and Spouse in the 20-49 Age Bracket. Ascendant relatives or other relatives excluded.

Source: ELFS (own calculations).

Table IV.2.7 contains the absolute gender gap and the relative gender gap of full-time equivalent employment rates in 1999. The absolute gender gap is obtained by subtracting the employment rate of women from the employment rate of men, while the relative gender gap is obtained as the ratio of the employment rate of women to the employment rate of men.

The absolute gender gap in the FTE employment rates is highest for parents with a young child (0-6 years old), particularly when compared with the gender gap for the employed without a child. The smallest gaps among parents with a young child are found in Portugal, Austria, Belgium and France.

The Southern countries (Greece, Italy and Spain), present the largest FTE employment gaps for employed men and women without dependent children. This cannot be attributed to part-

time work among women for rates of part-time employment are relatively low in these countries.

Turning to the relative gender gap, we find, on the one hand, great differences between people without a young child and for parents of young children (0-6 years) in the UK, the Netherlands and Germany. By comparison, the Southern countries show much lower differences, despite the low overall employment rates. On the other hand, there is a considerable difference in the relative gender gap for parents of small and older children in Germany and UK. However, overall the interpretation of the relative gender gap adds little to what we have learnt from inspecting the data on absolute gender gaps.

**Table IV. 2.7. Absolute and relative gender gaps of full-time equivalent employment rates 1999**

Absolute Gender Gap				Relative Gender Gap (Ratio)			
	No Child	0-6 years	7-14 years		No Child	0-6 years	7-14 years
<b>Austria</b>	16.65	44.56	40.18	<b>Austria</b>	81.79	54.26	59.04
<b>Belgium</b>	25.59	44.22	44.03	<b>Belgium</b>	72.02	56.12	55.92
<b>Germany</b>	15.89	60.12	46.55	<b>Germany</b>	81.52	36.77	51.74
<b>Spain</b>	42.12	59.29	56.49	<b>Spain</b>	53.78	38.63	41.03
<b>France</b>	19.48	45.53	37.24	<b>France</b>	77.05	51.39	62.01
<b>Greece</b>	41.75	60.65	52.74	<b>Greece</b>	55.48	43.70	50.09
<b>Ireland (1)</b>	24.66	61.78	58.80	<b>Ireland (1)</b>	71.57	36.56	36.54
<b>Italy</b>	42.55	59.84	59.19	<b>Italy</b>	55.72	40.20	41.62
<b>Luxembourg</b>	27.84	61.86	57.50	<b>Luxembourg</b>	71.25	38.55	43.75
<b>Netherlands</b>	23.45	65.20	60.02	<b>Netherlands</b>	72.97	33.09	37.86
<b>Portugal</b>	24.05	32.32	28.65	<b>Portugal</b>	74.86	67.90	71.39
<b>UK</b>	16.65	59.99	47.27	<b>UK</b>	80.91	35.06	49.70

(1) Data for Ireland 1997.

Note: Data are not available for Denmark, Finland and Sweden. Data only includes Household Head and Spouse in the 20-49 Age Bracket. Ascendant relatives or other relatives excluded.

Source: ELFS (own calculations)

Table IV.2.8 contains the FTE employment impact of parenthood of small children (0-6), obtained by subtracting the FTE employment rate of parents of children 0-6 from the FTE employment rate of those without a young child. It also presents the relative gender gap in the FTE employment impact of parenthood, which is the ratio between the impact of parenthood for women to that for men.

**Table IV. 2.8. The FTE Employment Impact of Parenthood (children 0-6) and the Relative Gender Gap in the Employment Impact of parenthood/motherhood in 1999**

		<b>Employment impact of parenthood (child aged 0-6 years)</b>	<b>Relative gender gap in the employment impact of parenthood</b>
<b>Austria</b>	Male	5.97	-3.67
	Female	-21.94	
<b>Belgium</b>	Male	9.32	-1.00
	Female	-9.31	
<b>Germany</b>	Male	9.10	-3.86
	Female	-35.13	
<b>Spain</b>	Male	5.50	-2.12
	Female	-11.68	
<b>France</b>	Male	8.79	-1.96
	Female	-17.26	
<b>Greece</b>	Male	13.96	-0.35
	Female	-4.95	
<b>Ireland</b>	Male	10.63	-2.49
	Female	-26.49	
<b>Italy</b>	Male	3.97	-3.36
	Female	-13.32	
<b>Luxembourg</b>	Male	3.83	-7.88
	Female	-30.18	
<b>Netherlands</b>	Male	10.67	-2.91
	Female	-31.08	
<b>Portugal</b>	Male	5.03	-0.65
	Female	-3.25	
<b>UK</b>	Male	5.13	-7.45
	Female	-38.21	

(1) Data for Ireland 1997.

Note: Data are not available for Denmark, Finland and Sweden. Data only includes Household Head and Spouse in the 20-49 Age Bracket. Ascendant relatives or other relatives excluded.

Source: ELFS (own calculations).

As table IV. 2.8 shows, the FTE employment impact of fatherhood is positive while the impact of motherhood is negative in all EU countries. The impact is also much higher, in absolute value, for women than it is for men. The highest impact is for Germany, the Netherlands and the UK. As to the relative gender gap, the negative sign in all the countries reflects the fact of the opposite impact of motherhood (negative) and fatherhood (positive). The highest relative gender gap appears in Luxembourg (-7.88), followed closely by UK (-7.45). There is a group of countries formed by Germany and Austria with relative gender gaps of -3.86 and -3.67. The countries with the lowest relative gender gaps are Greece, Portugal, Belgium, France and Spain.

#### **IV.2.5 The employment impact of motherhood by education level**

Table IV. 2.9 compares the employment rates for women without a young child (0-6 years) and those with a young child, by education level. The 'relative motherhood gap' is calculated

as the ratio between the employment rates of women without a young child and those with a young child in the age group specified.

The table shows that women's employment rates rise with education, regardless of whether or not they have young children. At each education level, mothers have lower employment rates than those without young children. Furthermore, the employment rate for mothers with a very young child is lower than that for women whose youngest child is slightly older (3-6 years). This indicates some recovery in the employment rate as the youngest child grows older. It is particularly at the lower education level that the employment rates of mothers with a very young child (0-2 years) are even lower than that for mothers with a slightly older child.

**Table IV.2.9 Employment rates for women 20-49 by education, and age of youngest child in 2000.**

**(a) Low education qualification level**

Country	No child	0-6 yrs	0-2yrs	3-6yrs	Relative motherhood gap - child 0-6 yrs	Relative motherhood gap - child 0-2 yrs	Relative motherhood gap - child 3 -6 yrs
Austria	68.7%	57.9%	62.5%	54.7%	84.2%	91.0%	79.6%
Belgium	62.6%	41.7%	40.3%	43.1%	66.6%	64.4%	68.8%
Germany	67.7%	33.8%	27.1%	41.4%	50.0%	40.0%	61.1%
Spain	44.8%	29.8%	26.6%	32.1%	66.5%	59.4%	71.8%
France	66.0%	37.2%	26.0%	48.0%	56.3%	39.3%	72.7%
Greece	45.1%	34.1%	29.4%	37.1%	75.6%	65.2%	82.4%
Italy	43.1%	28.4%	29.3%	27.7%	65.9%	67.9%	64.2%
Luxembourg	65.9%	49.5%	:	:	75.1%	:	:
Netherlands	65.7%	43.8%	38.6%	49.0%	66.7%	58.8%	74.6%
Portugal	72.8%	69.7%	65.1%	73.5%	95.7%	89.4%	100.9%
UK	62.0%	25.9%	19.6%	31.4%	41.8%	31.6%	50.7%
EU	57.1%	35.4%	30.5%	39.7%	62.0%	53.5%	69.5%

**(b) Medium education qualification level**

Country	No child	0- 6 yrs	0-2yrs	3-6yrs	Relative motherhood gap - child 0-6 yrs	Relative motherhood gap - child 0-2 yrs	Relative motherhood gap - child 3 -6 yrs
Austria	81.4%	69.7%	73.2%	66.7%	85.6%	89.9%	81.9%
Belgium	76.0%	68.0%	66.0%	70.1%	89.5%	86.8%	92.2%
Germany	81.8%	57.2%	52.6%	61.9%	69.9%	64.3%	75.6%
Spain	64.8%	51.2%	52.4%	50.0%	79.0%	80.8%	77.2%
France	76.9%	62.0%	53.6%	71.4%	80.7%	69.7%	92.9%
Greece	52.4%	45.7%	41.1%	50.5%	87.2%	78.3%	96.3%
Italy	72.5%	58.5%	57.3%	59.7%	80.7%	79.0%	82.3%
Luxembourg	77.5%	55.6%	:	:	71.7%	:	:
Netherlands	86.0%	69.7%	68.8%	70.7%	81.0%	80.0%	82.2%
Portugal	86.0%	88.0%	86.0%	90.0%	102.3%	100.1%	104.7%
UK	85.2%	58.0%	53.1%	62.9%	68.0%	62.3%	73.9%
EU	79.4%	59.5%	55.5%	63.7%	74.9%	69.8%	80.2%



**(c) High education qualification level**

Country	No child	0-6 yrs	0-2yrs	3-6yrs	Relative motherhood gap - child 0-6 yrs	Relative motherhood gap - child 0-2 yrs	Relative motherhood gap - child 3 -6 yrs
<b>Austria</b>	92.2%	79.2%	80.0%	76.9%	85.9%	86.8%	83.4%
<b>Belgium</b>	91.6%	88.3%	87.1%	89.7%	96.4%	95.1%	97.9%
<b>Germany</b>	89.9%	70.2%	66.9%	73.9%	78.1%	74.4%	82.2%
<b>Spain</b>	81.6%	70.4%	68.9%	72.2%	86.3%	84.4%	88.5%
<b>France</b>	81.7%	79.1%	77.0%	81.8%	96.8%	94.3%	100.2%
<b>Greece</b>	82.1%	76.1%	74.0%	79.2%	92.7%	90.1%	96.5%
<b>Italy</b>	87.1%	79.0%	76.7%	81.7%	90.7%	88.0%	93.8%
<b>Luxembourg</b>	87.7%	71.3%	:	:	81.3%	:	:
<b>Netherlands</b>	92.2%	81.7%	80.3%	82.9%	88.6%	87.1%	89.9%
<b>Portugal</b>	95.0%	98.6%	96.8%	100.0%	103.8%	101.9%	105.3%
<b>UK</b>	92.1%	77.7%	74.7%	81.7%	84.4%	81.1%	88.7%
<b>EU</b>	87.8%	76.9%	74.7%	79.6%	87.6%	85.1%	90.6%

UK 99; EU includes UK 99; data not shown for Luxembourg due to reliability problems.

Note: Data are not available for Denmark, Sweden and Finland. Data only includes Household Head and Spouse. Ascendant relatives or other relatives excluded.

Source: ELFS (own calculations).

The relative impact of having a very small child (0-2) is particularly important in Germany at all education levels, where, despite the high level of part-time employment, there is a low share of children 0-3 in publicly financed services (Appendix table IV.1). It is also important in France and the UK, particularly for women with a low or medium-level education.

The impact of motherhood on employment is much less pronounced at the higher education level across all countries. In fact, mothers with the highest education levels have higher employment rates than less educated women without young children in most countries. Indeed, the relative impact of motherhood is negligible for mothers with higher education in Belgium, France, Italy, Greece, and Portugal, indicated by the motherhood ratios of 90% or over.

**IV.2.6. The employment impact of motherhood for lone mothers and mothers in couple households**

Table IV. 2.10 presents the employment rates for mothers aged 20-49 years with a young child, according to whether they are lone mothers or mothers living in couple households. The 'lone mother' impact is the percentage point difference when the employment rate of lone mothers is subtracted from that for mothers in couple households.

There are some important differences between countries. In three countries (Austria, Spain and Greece) lone mothers have higher employment rates than mothers in couple households. The situation is reversed in the other countries, with a particularly large discrepancy found in Italy, the Netherlands and the UK.

**Table IV. 2.10 Employment Rates for mothers aged 20-49 years old in couple and lone mother households, 2000**

	Employment rates of mothers with a young child aged 0-6 years		
	In couple households	In lone mother households	'Lone mother' impact
<b>Austria</b>	66.8	82.1	15.3
<b>Belgium</b>	72.2	53.9	-18.3
<b>Germany</b>	55.2	53.3	-1.9
<b>Spain</b>	44.7	69.0	24.3
<b>France</b>	59.7	54.4	-5.3
<b>Greece</b>	49.4	72.7	23.3
<b>Ireland</b>	46.1	36.0	-10.1
<b>Italy</b>	45.8	67.2	-21.4
<b>Netherlands</b>	66.1	38.7	-27.4
<b>Portugal</b>	75.6	70.0	-5.6
<b>UK</b>	62.6	36.3	-26.3
<b>EU 12</b>	56.6	47.7	-8.9

(1) Employment rates for women with children 0-6 are for 1999 for Ireland and the UK. EU includes UK 1999 and Ireland 1999. Note: Data are not shown for Luxembourg due to reliability problems. Data are not available for Denmark, Finland and Sweden. Source: ELFS (own calculations).

#### **IV.2.7 Rates of involuntary part-time work**

Table IV.2.11 shows that the proportion of part-timers who are involuntarily working part-time is much higher in some member states than in others. For instance, in 1999 (which is the latest year for which data are available for all countries), involuntary part-time work was lowest in the Netherlands (4.3%) but applied to a quarter or more of all part-timers in Spain, France, Sweden, Italy, Finland and Greece. The rates of involuntary part-time work should be interpreted with reference to the different overall rates of part-time work between countries. For example, the high rates of involuntary part-time work in France and Sweden are in the context of widespread part-time work, whereas part-time work is less prevalent in Spain, Italy, Finland and Greece.

Rates of part-time work are lower among men than for women, but higher proportions of male part-timers are doing this on an involuntary basis in all countries except Germany, Denmark, Spain, Finland, Portugal, and Sweden (few gender differences and no consistent pattern over the years)

**Table IV.2.11. Involuntary part-time employment by gender 1996-2000**

	% Rate of part-timers who are involuntary part-timers														
	Total					Men					Women				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
<b>Austria</b>	9.3	8.4	15.2	11.3	10.7	9.6	9.0	23.1	22.1	20	9.3	8.3	13.8	9.4	9.2
<b>Belgium</b>	26.5	26.0	26.2	20.3	22.2	34.5	39.7	36.5	30.9	28.5	25.3	24.0	24.6	18.6	21
<b>Germany</b>	11.9	13.3	13.6	13.0	:	15.5	17.8	17.6	18.0	:	11.3	12.6	13.0	12.2	:
<b>Denmark</b>	14.5	13.6	13.6	15.3	13.6	12.4	13.1	9.9	12.6	10.9	15.4	13.9	14.9	16.2	14.4
<b>Spain</b>	22.5	24.3	24.7	25.1	22.8	21.7	23.3	23.0	26.2	22.1	22.8	24.7	25.3	24.8	23
<b>Finland</b>	40.9	37.6	33.4	37.9	34.7	35.4	32.8	29.0	32.6	29.5	43.9	40.2	35.3	40.7	37.4
<b>France</b>	39.6	41.3	29.7	27.5	26.8	52.1	52.7	45.8	41.2	42.1	36.9	38.8	26.1	24.5	23.5
<b>Greece</b>	39.6	41.0	44.8	43.8	:	51.5	50.2	52.5	48.5	:	32.0	36.0	40.7	41.0	:
<b>Ireland</b>	29.9	25.2	24.4	12.7	:	55.3	46.3	41.9	26.0	:	20.7	17.6	17.5	8.0	:
<b>Italy</b>	37.6	37.9	36.8	36.4	35.6	44.9	46.0	45.4	44.9	46.3	34.3	34.5	33.1	33.1	31.5
<b>Luxembourg</b>	6.7	8.8	7.5	9.8	:	:	:	:	:	:	5.6	7.9	6.9	9.9	:
<b>Netherlands</b>	6.2	5.5	5.5	4.3	:	10.5	8.2	8.4	6.7	:	4.7	4.6	4.3	3.5	:
<b>Portugal</b>	21.5	21.6	23.7	23.7	23.5	15.5	16.1	20.5	20.3	16.6	24.5	24.1	25.2	25.3	26.7
<b>Sweden</b>	29.5	32.0	30.1	29.6	23.2	29.2	34.7	32.0	33.5	22	29.6	31.3	29.6	28.6	23.5
<b>UK</b>	12.6	12.2	11.5	10.3	9.7	25.5	23.8	22.8	21.3	19.7	9.8	9.5	8.7	7.6	7.2
<b>EU15</b>	<b>19.1</b>	<b>19.7</b>	<b>18.0</b>	<b>16.8</b>	<b>:</b>	<b>26.9</b>	<b>26.7</b>	<b>25.6</b>	<b>24.4</b>	<b>:</b>	<b>17.2</b>	<b>17.9</b>	<b>16.0</b>	<b>15.0</b>	<b>:</b>

Data are not available for Denmark, Finland and Sweden.  
Source: ELFS (DGV calculation)

### **IV.3. Indicators for monitoring the relationship between family life and employment**

The French Presidency in 2000 undertook a review of the indicators required to monitor the relationship between, and reconciliation of, employment and family life. This was part of the regular thematic reviews that the Council of Ministers of the European Union agreed to undertake as part of the Platform for Action adopted following the Fourth World Conference on Women (Beijing, 1995).

The report identified five resource issues of key relevance for monitoring the relationship between family life and employment and reviewed the availability of information on these for the Member States:

- Available time – leave arrangements
- Collective childcare provision
- Collective care for dependent elder people
- Opening hours of services
- The gender division of domestic work

This report has been used as the basis of the discussion presented in this section.

#### IV. 3.1 Available time - leave arrangements

In line with Community legislation, all Member States have introduced the right to maternity leave, parental leave and, more rarely, paternity leave, special leave to care for sick children or dependent adults. However, there is still national diversity in the length of leave and whether or not it is paid. Maternity leave varies between 14 weeks (Germany and Ireland) and 28 weeks (Denmark) and generally offers relatively homogeneous guaranteed payment. Parental leave, however, varies between 13-14 weeks in the United Kingdom and Ireland and 3 years (Germany, Spain, France and Portugal). Moreover, it is not paid in the first two countries referred to and in Spain. There is a small allowance (in the form of a fixed-level allowance, subject to certain conditions, such as the number of children) in France with *APE* (*Allocation Parentale d'Education* – 'Parental Childcare Allowance') and in Germany, Austria and Belgium, and finally, a bigger allowance especially in Sweden, and also in Denmark, Finland and Luxembourg (earnings-related).

Whatever the formula adopted, parental leave remains very much the realm of women – 90% is taken up by women in all countries, except for the Netherlands, where the Dutch questionnaire gave the rate of take-up by women as 57%, and in Finland (68%). The length of leave taken by fathers should also be examined: thus in Sweden, 80% of fathers take the much-talked about 'father's month'<sup>21</sup>, but only about 30% take more, in spite of 80% of their pay being guaranteed for the first year of leave. More countries are introducing arrangements to encourage fathers to take leave. For example, in Austria, and more recently in Italy, leave is extended if the father takes part of it. Finally, the situation is totally different in Spain, where fathers can take part of maternity leave itself (up to 10 out of 16 weeks). The reason for this gender bias in the take-up of parental leave include both cultural traditions as well as structural factors, such as obstacles from companies which are not in favour of such measures for men.

It should be emphasised that women's careers are penalised by long parental leave, including in the Nordic countries. Even if the return to employment is guaranteed, it is often accompanied by delays in career development and promotion, because of the extended absence from the firm. These penalties, as well as the loss of pay deter men from taking parental leave, as well as some women, especially those who are the most highly qualified. Such measures can, therefore, contribute to segmenting the labour market and increasing social inequality – including among women – as in France, where those, who take advantage of the measure (*APE*), are disadvantaged on the labour market.

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<sup>21</sup> This quota was introduced in 1995, and the 'father's month' cannot be transferred to the mother so this month of leave is forfeited if the father does not take it.

#### **IV. 3.2 The development of collective care provision for children and dependent older people**

There is a lack of harmonised data concerning collective childcare provision across the member states (cf. graph I), and often the data that are available are incomplete. That is why data provided by answers to the questionnaire used by the French Presidency are supplemented by older data for the 1990s collected in an earlier study by European experts (Deven et al. 1997).

There have been significant increases in the provision of childcare, but almost entirely in relation to children aged 3 to 6 years old. Only four countries - Sweden, Finland, Denmark and France - have childcare services that cover more than a third of small children (0-1 year-olds should be separated from 1-2 year-olds, because we know that there is very little collective care for very young children). In some countries, notably Austria and Germany, young children are cared for through extended parental leave. Few countries diversify types of care and offer simultaneously the choice of leave and/or collective care for very young children.

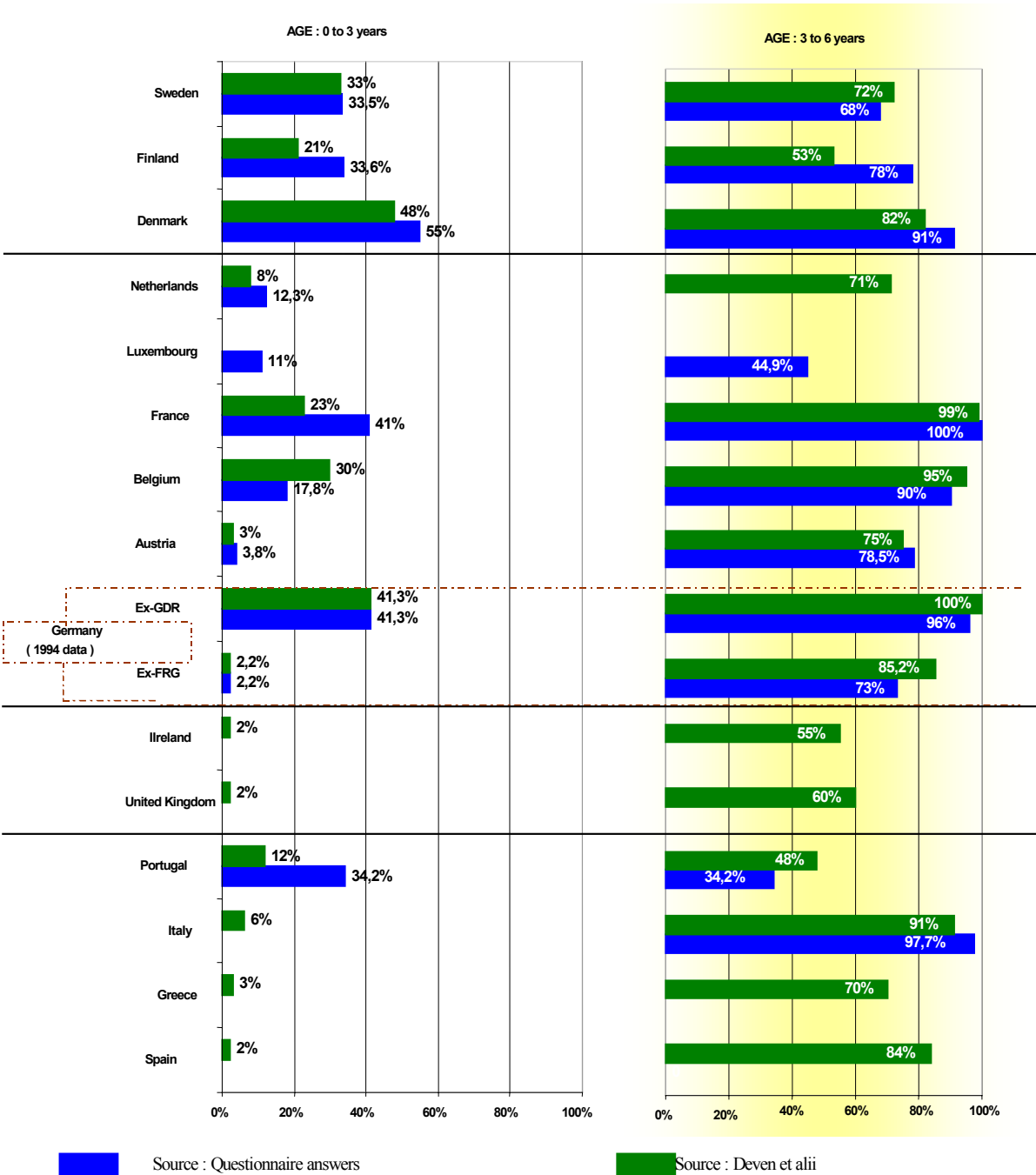
However, on the right-hand side of the graph, one can observe that nine countries provide collective care for 90% of 3 to 6 year-olds. But there are still two major problems: the length of school hours are generally short (between 4 and 5 hours per day) so part-time work, family mutual assistance or other kinds of additional individual care is required.

Comparable data on services for dependent elder people (defined as people over 65 years old, who are not able to live independently) in the member states are extremely scarce. Graph II shows that it is difficult to identify the share of people who are cared for in institutions and those benefiting from help at home. Overall, one can consider that efforts to monitor trends in this field remain largely insufficient everywhere. A number of sources have had to be used as indicators, and it is clear that there are great differences depending on the source (for different years). Likewise, these data would be more satisfactory if it was only a matter of people over 75 years (who are really concerned by this issue), but no harmonised data could be obtained on that.

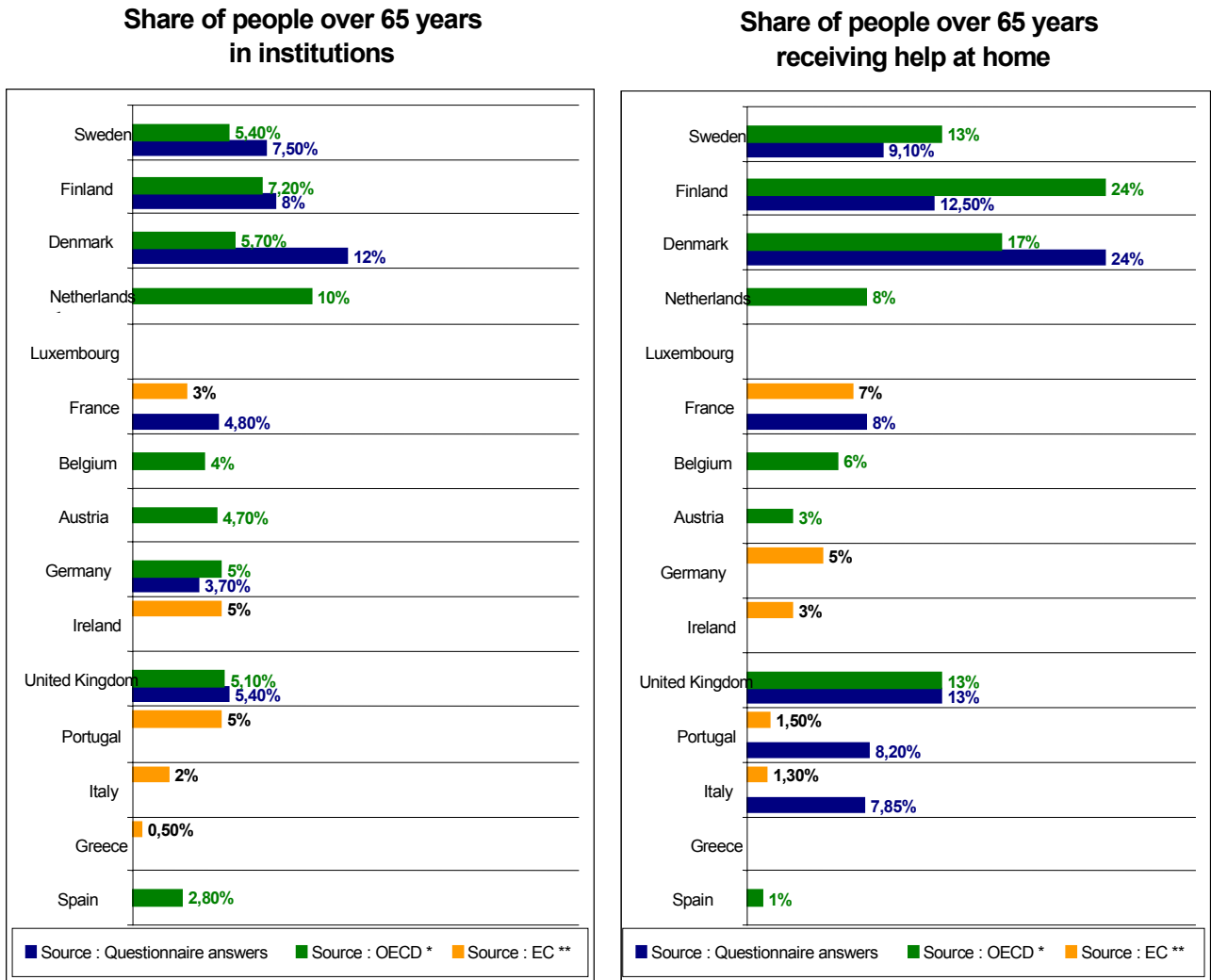
The share of dependent people in institutions is more than 10% in only two countries, whilst help at home, which is more likely to provide a better environment for those concerned, when it is possible, varies between 8% and 15% in only 4 countries (Sweden, Finland, Denmark and the United Kingdom). However, this indicator does not tell us the extent of home care service provided to those in receipt of home care, or the amount of unmet need for home care services.

Overall, just as for young children, family care for dependent elder people is essential but there are no harmonised data on the number of adults providing this care, or the amount of time they spend on this care work. This area should be the subject of special attention in the development of indicators in the area of the relationship of employment and family life.

**Graph IV. I Distribution of childcare for children aged 0 to 3 and for children from 3 year until entry into compulsory school in 1998 (regular and main forms of care)**



**Graph IV.2 Share of people over 65 in an institution or receiving help at home**



\* OECD (1996) data from 1986 to 1994

\*\* CEE (Care in Europe) data from 1985 to 1994

### IV. 3.3 The compatibility of service opening hours

The promotion of the reconciliation of employment and family life is also enhanced by the compatibility of the opening hours of public services – including care services and school hours - and private services (particularly shop opening hours), with working hours. There is a lack of readily available and harmonised data on these issues.

#### IV.3.4 The gender division of domestic work

The volume of domestic work, and its distribution between men and women, is also important to monitor when assessing progress towards the reconciliation of employment and family life. All countries score poorly on the male-female gap in unpaid domestic time spent looking after children and other persons (Plantenga and Hansen 1999). The average score for the EU is 0.24. This means that women spend about four times as long as men on caring tasks. The division is less extreme only in Denmark and Sweden, while it is most pronounced in Portugal, Greece and Austria.

Table IV. 3.1 The gender gap in unpaid time spent looking after children and other persons, 1995

	Men	Women	Gender ratio
Belgium	3.1	9.1	0.34
Denmark	4.8	8.8	0.55
Germany	4.3	14.3	0.30
Greece	2.1	13.8	0.15
Spain	3.9	14.7	0.27
France	2.0	7.5	0.27
Ireland	4.1	16.1	0.25
Italy	3.7	14.8	0.25
Luxembourg	3.3	11.6	0.28
Netherlands	6.2	19.3	0.32
Austria	2.7	15.4	0.18
Portugal	1.0	6.8	0.15
Finland	n.a.	n.a.	n.a.
Sweden	8.5**	19.3**	0.44**
UK	5.4	14.9	0.36
EU 15	3.0*	12.6*	0.24*

\* weighted average based on the population aged 15 years and over, of all EU-member states, except Austria, Finland and Sweden. \*\* estimate based on Nyberg, A. (1997) data for 1990/91, and refer to time spent on care for small children and others, in hours per week. Source: Eurostat, European Community Household Panel, Wave 2, 1995, unpublished data.

#### IV. 3.5 Indicators of the reconciliation of employment and family life adopted by the Council of Europe

On the basis of the review completed during the French Presidency 2000 nine indicators have been adopted by the Council of Europe and will be monitored regularly in the Member States (see Box 1).



## **Box IV.1. Indicators of reconciliation of employment and family life adopted by the Council of Europe**

### **1. Employed women and men on parental leave (paid and unpaid).**

*Definition:* As defined by directive 96/34/CE concerning the framework agreement of social partners on parental leave. Calculated as a proportion of all employed parents.

### **2. Allocation of parental leave between employed women and men.**

*Definition:* The share of parental leave taken by each sex as a proportion of all parental leave.

### **3. Childcare provided outside the family**

*Definition:* The percentage of children in each, calculated as a proportion of all children of the same age group, who are in childcare:

- before entry into the non-compulsory pre-school system (during the day);
- in the non-compulsory or equivalent pre-school system (outside pre-school hours);
- in compulsory primary education (outside school hours).

### **4. Comprehensive and integrated policies, particularly employment policies, aimed at promoting a balance between working life and family life.**

### **5. Care provided for dependent older men and women (who are unable to look after themselves on a daily basis)**

*Definition:* The proportion of men and women aged over 75 years who:

- live in specialised institutions
- have help (other than the family) at home
- have care provided by their family

### **6. Normal opening hours of public services (such as local authority offices, post offices, crèches, etc.) during the week and at weekends.**

### **7. Normal opening hours of shops during the week and at weekends.**

### **8. Total 'tied' time per day for each employed parent living with a partner, having one or more children under 12 years old or responsibility for one dependent person:**

- paid working time
- travelling time
- basic domestic time
- other time devoted to the family (care of children and dependent adults)

### **9. Total 'tied' time per day for each active parent living alone, having one or more children under 12 years old or responsibility for one dependent person:**

- paid working time
- travelling time
- basic domestic time
- other time devoted to the family (care of children and dependent adults)

#### IV.4. Evaluation and recommendations concerning the current indicators relating to Guideline 18: Reconciling Employment and Family Life

The current indicators proposed by the expert group to the Employment Committee on indicators of lifelong learning, entrepreneurship, taxation and gender equality (European Commission, 2000), for monitoring guideline 18: Reconciling work and family life, are the following:

##### **E07: Employment impact of parenthood by gender**

**Definition:** The absolute difference in the employment rates without the presence of any children and with the presence of a child aged 0-6, by sex (age group 20 –50)

**Data source:** Labour Force Survey (LFS), annual results available up to 2000

##### **E08: Gender gap in the employment impact on parenthood**

**Definition:** Ratio between the E07 indicators for women and men.

**Data source:** Labour Force Survey (LFS), annual results available up to 2000

##### **E09: Involuntary part-time employment**

**Definition:** Share of involuntary part-time employment by gender, in relation to total part-time employment rate

**Data source:** Labour Force Survey (LFS), annual results available up to 2000

#### *Limitations of the existing indicators*

The above indicators provide us with useful basic information about the unequal impact that family responsibilities have on women and men's labour market participation, in general, and on employment rates, in particular. However, the preceding analysis and discussion has shown that there are a number of disadvantages with relying upon these indicators because they neglect a number of issues that are important for monitoring the employment impact of parental and elder care responsibilities. These problems can be summarized as follows.

#### **E07: Employment impact of parenthood by gender**

**1) The employment impact of motherhood is sensitive to the age threshold used to define 'young child' (see table IV.2.1 and IV.2.2 above).**

There is evidence that the impact is higher when the youngest child is aged 0-6 years than when the youngest child is aged 7-14 years. A distinction between having a baby (0-2 years) or a very young

child (3-6 years) is also important, particularly for women with low education in all the EU countries.

**2) *The employment impact of motherhood varies between women according to education level (table IV.2.3 above)***

**3) *In some countries, employment patterns of mothers may be sensitive to the number of children, irrespective of the age of the youngest child.***

**4) *The impact of motherhood on employment varies between lone mothers and mothers in couple households***

The impact of single parenthood on employment rates is very significant in some countries, depressing employment rates in some but actually associated with higher employment rates in others. (see table IV.2.2, above).

**5) *The existing employment rate indicator does not monitor the volume of employment.***

The impact of children on employment patterns also reduces hours of work for women (and possibly increase hours of work for men). The basic employment rates, such as those that are contained in table 2.1 and 2.4, may be a much less sensitive measure than working time measures, particularly in those countries where mothers tend to work part-time.

<b>E08: Gender gap in the employment impact on parenthood</b>
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**6) *The employment impact of parenthood is mainly an impact on mothers, with little impact on fathers (see tables 2.3 and 2.4 above).*** Most of the variation is due to the negative impact of motherhood on employment. In all countries fatherhood has a small positive impact on employment (see table 2.8), which is associated with the age at which men typically become fathers.

The current E08 indicator does not allow for straightforward comparison and interpretation of the relative impact of parenthood on men and women, because the impact on women is negative, while

that on men is positive.<sup>22</sup> Moreover, variations in the value of the indicator do not have a straightforward interpretation. For example if the gender gap falls mainly as a result of a reduction in the positive effect of fatherhood on employment, while the negative employment effect of motherhood also increases but at a lower rate, then is this an indicator of good performance of a country in reconciliation of work and family life?

#### **E09: Involuntary part-time employment**

##### ***7) The rate of involuntary part-time work (shown in table IV.2.8) is not easy to interpret.***

This is for several reasons. Firstly, the distinction between 'voluntary' and 'involuntary' part-time among mothers is influenced by social norms about appropriate arrangements for caring for children and elder relatives, as well as care facilities to substitute for women's domestic labour. Secondly, the distinction is influenced by both these supply-side considerations and demand-side employment opportunities. Thus, the distinction between involuntary and voluntary part-time work cannot be interpreted in any meaningful way without information on care responsibilities and the availability of care facilities for this is the context in which parents make their decisions about childcare arrangements. This information includes quantifiable measures such as the ratio of places to children and relative cost, but also issues of service quality including staffing and accessibility of these services (flexibility of opening hours, location and transport conditions).

A third problem is that the rate of involuntary part-time work is expressed as a proportion of part-time work, but given that the rate of part-time work itself varies between countries and over time, this makes comparison of the magnitude difficult to interpret.

#### **Issues that are entirely neglected by indicators E07-E09**

***8) Current indicators only look at the employment effects for those who have children and neglect the impact of employment opportunities, working-time arrangements and care services on fertility decisions.***

##### ***9) There are no indicators on access to and the take-up of leave***

Furthermore, there are inconsistencies between countries in how periods of leave are defined in official statistics and in labour law. To obtain a clearer picture of parental leave it would be

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<sup>22</sup> As Maria Karamessini notes, this means that the value of the nominator of the ratio ( $M_c/M_{nc}$ ) is always above 1 for men and the value of the denominator of the ratio ( $W_c/W_{nc}$ ) is always below 1 for women.

useful to distinguish between parents who are employed and 'at work', those who are on parental leave, and those who are 'inactive' because they have not taken parental for some reason.

*10) There are no indicators on collective care facilities (young children and dependent elder people)*

*11) Indicators are also needed to monitor the gender gap in unpaid time spent on caring for children and other adults and other basic domestic work*

#### **IV. 4.2.1 Recommendations for improving the indicators.**

Our first recommendation is that full-time equivalent employment rates are used, supplemented with information on the distribution of working time between short part-time, long part-time, medium full-time and long full-time hours.

Secondly, given that most of the employment impact of parenthood is actually upon mothers, that the employment impact of motherhood should be explored in more detail than that of fatherhood, and EO8 as it is currently constituted should be dropped in favour of a focus on EO7.

Thirdly, indicators of collective care services and the gender distribution of unpaid domestic work must be introduced.

Fourthly, that the indicator of involuntary part-time work be substantially revised, or dropped entirely.

Finally, we agree with the EC proposal to establish a hierarchy of 'key' and 'contextual' indicators.

Consequently, for monitoring the trends in employment by parenthood/motherhood, we recommend the following:

<b><u>Key indicators</u></b>	
<p><b><i>The employment impact of parenthood in FTE employment rates for women and men</i></b></p> <p>Age group 20-49.</p> <p>Young child aged 0-6 years.</p>	<p><i>Definition:</i></p> <p>The 'absolute motherhood gap' = FTE employment rate of mothers subtracted from non-mothers. The 'absolute fatherhood gap' can be calculated for men in a similar way.</p> <p>The 'absolute gender gap' = FTE employment rate of mothers subtracted from the FTE employment rate of fathers, similarly for women and men without a young child.</p> <p>Note: When the absolute gaps are expressed in relative forms as ratios, the interpretation of such ratios is less transparent and can be misleading.</p> <p><i>Data source:</i> Labour Force Survey (LFS).</p> <p>See section 2.4 above for more detail.</p>
<p><b><i>The employment impact of motherhood</i></b></p> <p>Age group 20-49.</p> <p>Youngest child is aged 0-6 years</p> <p>Youngest child is 7-14 years</p>	<p><i>Definition:</i> The 'motherhood gap' is the difference between the employment rate of women with no dependent child (0-14 years) in the household and those with a dependent child.</p> <p>A distinction between 'young motherhood' gap (youngest child is aged 0-6 years) and old 'motherhood gap' (youngest child is aged 7-14 years) is made in order to capture the effect of the age of the youngest child in the household.</p> <p><i>Data source:</i> Labour Force Survey (LFS)</p> <p>See section 2.1. above for more detail.</p>
<p><b><i>The take-up of parental leave by men and women</i></b></p>	<p>As recommended by the French Presidency, see section 3 above</p>
<p><b><i>The level of collective services provided for young children</i></b></p>	<p>As recommended by the French Presidency, see section 3 above</p>
<p><b><i>The level of collective services provided for dependent elders</i></b></p>	<p>As recommended by the French Presidency, see section 3 above</p>

<b><u>Contextual indicators</u></b>	
<p><b><i>Employment impact of motherhood by education level</i></b></p> <p>Age group 20-49.</p> <p>Youngest child aged 0-2 years</p>	<p><i>Definition:</i> The 'relative motherhood gap: 0-2 years' is calculated as the ratio between the employment rate of mothers of children aged 0-2 years old and the employment rate of women without dependent children, by educational level. The 'relative motherhood gap: 3-6 years' is calculated as the ratio between the employment rate of mothers of children aged 3-6 years and the</p>

Youngest child aged 3-6 years	employment rate of non-mothers, by educational level. <i>Data source:</i> Labour Force Survey (LFS) See section 2.5 above for more detail
<b><i>Employment impact of motherhood by number of children</i></b>	<i>Definition:</i> The employment impact of having none, one, two, three or more children aged 0-14 years. <i>Data source:</i> Labour Force Survey (LFS)
<b><i>Employment impact of motherhood for lone mothers compared to mothers in couple households</i></b>	<i>Definition:</i> The employment rate for mothers is compared for lone mothers and those living in couple households. <i>Data source:</i> Labour Force Survey (LFS) See section IV.2.6 above for more detail
<b><i>Impact of gender on the distribution of working time</i></b> Between short part-time, long part-time, medium full-time and long full-time hours	<i>Definition:</i> The 'gender difference distribution' is obtained by subtracting the female percentage distribution from the male distribution. <i>Data source:</i> Labour Force Survey (LFS). See section IV.2.3 above for more detail
<b><i>Impact of motherhood on the distribution of working time (women with/without a young child aged 0-6 years)</i></b> Between short part-time, long part-time, medium full-time and long full-time hours	<i>Definition:</i> The 'motherhood difference distribution' is obtained by subtracting the percentage distribution of women with no children from the percentage of women with a youngest child aged 0-6 years. <i>Data source:</i> Labour Force Survey (LFS). See section IV.2.3, above for more detail
<b><i>Absolute gender gaps in employment rates, by the age of the youngest child</i></b>	<i>Definition:</i> The gender gap is obtained by subtracting the employment rate of women aged 20-49 years with no dependant children from that for men with no dependant children; and similarly for those with a child aged 0-6 years, and a youngest child aged 7-14 years. <i>Data source:</i> Labour Force Survey (LFS). See section IV.2.2 above for more details
<b><i>The gender gap in time spent on caring and other unpaid domestic work</i></b>	<i>Definition:</i> the difference between women and men in unpaid time spent looking after children, other dependant persons and time spent on basic domestic tasks <i>Data source:</i> European Community Household Panel Survey (ECHP) or the Time Use Survey See section 3 above for more detail

Finally, we recommend that ***E09: Involuntary part-time employment*** should be dropped. Alternatively it requires substantial modification. The existing LFS survey question would need to be restructured to identify people who work part-time on a voluntary basis because of care

responsibilities, and people who work part-time because there are no suitable care services to enable them to work full-time. Here the recommendations of the French Presidency report are pertinent. This report recommended asking parents who were not employed or employed part-time the reasons for their employment status, including a differentiation between the following reasons, which can currently be derived from the European Community Household Panel (Q113):

Taking care of children

Taking care of other adults

Unavailability of childcare services

Cost of childcare services

Distance of care services

Deficiency of care service's quality

Deficiency of opening hours of the care services

In addition, it would be better to express involuntary part-time work as a proportion of all employment rather than as a proportion of part-time employment. However, on balance we emphasise that it would be better to drop this indicator and to substitute the key indicators on care provision listed above.



**Appendix Table IV.1. Contextual information on women's employment patterns and the level of childcare services in the member states**

	Female employment rate (gender gap)	Female unemployment rate (gender gap)	Female part-time work	Share of children in publicly financed services 0-3 years 3-6 years	Remarks
<b>Austria</b>	High (medium)	Low (low)	medium	Low High	Employment statistics include many women on parental leave that do not return to work after 18 months.
<b>Belgium</b>	Low (high)	High (high)	High	High High	Employment rates especially low for older women.
<b>Denmark</b>	High Low	Low (low)	high	High High	High full-time equivalent female employment rate. Women's share of part-time work is falling.
<b>Finland</b>	High (low)	High (low)	medium	Medium High	A high proportion of women are in temporary employment.
<b>Germany</b>	Medium (high)	Low (low)	high	Low High	Higher labour force and unemployment rates in East than in West Germany
<b>France</b>	Medium (high)	High (high)	medium	Medium High	Employment rates for highly educated women are low in comparison with other EU countries.
<b>Greece</b>	Low (high)	High (high)	Low	Low High	There is a wide gap between the employment rates for low and high educated women.
<b>Ireland</b>	Low (high)	Medium (Low)	medium	Low Medium	There is a large gap in the average hours worked by full-time and part-time employees.
<b>Italy</b>	Low (high)	High (high)	Low	Low High	There is a wide gap between the employment rates for low and high educated women
<b>Luxembourg</b>	Low (high)	Low (low)	medium	Low High	A large proportion of workers live in neighbouring countries and also a large proportion of Luxembourg residents work in other countries.
<b>Netherlands</b>	Medium (high)	Low (high)	high	Low High	There is a wide gap between the employment rates for low and high educated women. Large difference between the headcount and the full-time employment rate for women.
<b>Portugal</b>	High (low)	Low (low)	low	Low Medium	There is a high share of low educated women in employment and high shares of women who are self-employed/family workers.
<b>Spain</b>	Low (High)	High (high)	low	Low High	Even highly educated women have relatively low employment rates. High proportion of temporary female workers.
<b>Sweden</b>	High (low)	Medium (low)	high	High High	Small difference in employment rates of low and high educated women.
<b>UK</b>	High (medium)	Low (low)	high	Low Medium	There is a high share of low educated women in employment. Difference between headcount and full time equivalent employment rates for women.

Source: Extracted from the Country fiches of the working papers 1992-99 produced by the Gender Network. The European Work and Employment Research Centre, Manchester School of Management, UMIST, Working Paper Series.

**Appendix table IV.2 Employment Rates (and Employment Impact of Parenthood) for women 20-49 by number of children, 2000**

	Employment Rates				Employment Impact of Parenthood		
	Number of Children (< 14)				Number of Children (< 14)		
	0	1	2	=>3	1	2	=>3
Austria	79.89%	76.35%	67.15%	55.46%	-3.53%	-12.73%	-24.43%
Belgium	76.57%	70.11%	75.73%	52.44%	-6.46%	-0.85%	-24.13%
Germany	80.80%	68.81%	58.07%	40.19%	-11.99%	-22.73%	-40.61%
Spain	56.84%	48.23%	44.96%	35.34%	-8.61%	-11.88%	-21.50%
France	75.07%	72.80%	63.92%	40.51%	-2.27%	-11.15%	-34.57%
Greece	53.64%	53.22%	50.67%	44.18%	-0.42%	-2.97%	-9.45%
Ireland (97)	67.63%	51.35%	45.26%	33.91%	-16.28%	-22.37%	-33.72%
Italy	58.48%	51.84%	43.49%	32.64%	-6.64%	-14.99%	-25.84%
Luxembourg	74.78%	65.60%	52.78%	39.34%	-9.19%	-22.00%	-35.44%
Netherlands	81.99%	69.43%	65.44%	53.03%	-12.56%	-16.55%	-28.96%
Portugal	76.16%	79.79%	71.37%	58.91%	3.63%	-4.79%	-17.25%
UK (99)	83.08%	68.49%	64.26%	47.08%	-14.59%	-18.82%	-35.99%
EU	74.47%	64.44%	58.02%	42.95%	-10.03%	-16.45%	-31.52%

Note: Ireland 1997 and UK 1999. Data only includes Household Head and Spouse in the 20-49 Age Bracket. Ascendant relatives or other relatives excluded. 20-49 Age bracket.

Source:ELFS 2000 (own calculations), household Data (private households), 1999-2000

**Appendix table IV.3a. Employments rates of non parents and parents of young children by level of education**

		Employment Rates					
		2000 Low		2000 Medium		2000 High	
		No Child	0-6 years	No Child	0-6 years	No Child	0-6 years
<b>Austria</b>	<b>male</b>	81.15	87.10	90.03	95.44	94.45	97.84
	<b>female</b>	68.68	57.86	81.42	69.69	92.20	79.27
<b>Belgium</b>	<b>male</b>	83.13	89.41	90.33	95.92	94.84	97.76
	<b>female</b>	62.63	41.80	76.03	68.00	91.56	88.38
<b>Germany</b>	<b>male</b>	75.97	80.59	84.48	92.55	93.54	96.00
	<b>female</b>	67.71	33.83	81.83	57.18	89.86	70.22
<b>Spain</b>	<b>male</b>	87.33	90.65	91.71	96.04	94.16	97.10
	<b>female</b>	44.79	29.78	64.77	51.18	81.55	70.43
<b>France</b>	<b>male</b>	79.33	84.95	86.29	93.77	85.89	96.11
	<b>female</b>	65.99	37.17	76.85	61.98	81.68	79.13
<b>Greece</b>	<b>male</b>	89.55	95.19	78.88	96.95	93.84	96.79
	<b>female</b>	45.11	34.06	52.43	45.74	82.12	76.11
<b>Ireland</b>	<b>male</b>	:	:	:	:	:	:
	<b>female</b>	:	:	:	:	:	:
<b>Italy</b>	<b>male</b>	88.36	90.19	92.24	96.74	96.64	98.53
	<b>female</b>	43.09	28.36	72.47	58.51	87.12	79.11
<b>Luxembourg</b>	<b>male</b>	93.22	94.93	98.27	97.70	97.15	98.93
	<b>female</b>	65.92	49.52	77.50	55.67	87.73	71.26
<b>Netherlands</b>	<b>male</b>	85.79	88.16	92.94	97.03	94.72	98.00
	<b>female</b>	65.73	43.85	86.02	69.69	92.23	81.71
<b>Portugal</b>	<b>male</b>	92.62	95.69	87.46	97.63	93.42	98.44
	<b>female</b>	72.78	69.71	86.03	87.98	94.95	98.57
<b>UK</b>	<b>male</b>	63.13	66.56	87.07	91.74	92.53	96.48
	<b>female</b>	61.92	25.91	85.21	57.96	92.10	77.67

**Appendix Table IV.3b Employment impact of parenthood by level of education**

		Employment Impact of Parenthood		
		2000 Low	2000 Medium	2000 High
<b>Austria</b>	<b>Male</b>	-6.0	-5.4	-3.4
	<b>Female</b>	10.8	11.7	12.9
<b>Belgium</b>	<b>Male</b>	-6.3	-5.6	-2.9
	<b>Female</b>	20.8	8.0	3.2
<b>Germany</b>	<b>Male</b>	-4.6	-8.1	-2.5
	<b>Female</b>	33.9	24.7	19.6
<b>Spain</b>	<b>Male</b>	-3.3	-4.3	-2.9
	<b>Female</b>	15.0	13.6	11.1
<b>France</b>	<b>Male</b>	-5.6	-7.5	-10.2
	<b>Female</b>	28.8	14.9	2.6
<b>Greece</b>	<b>Male</b>	-5.6	-18.1	-2.9
	<b>Female</b>	11.1	6.7	6.0
<b>Ireland</b>	<b>Male</b>	:	:	:
	<b>Female</b>	:	:	:
<b>Italy</b>	<b>Male</b>	-1.8	-4.5	-1.9
	<b>Female</b>	14.7	14.0	8.0
<b>Luxembourg</b>	<b>Male</b>	-1.7	0.6	-1.8
	<b>Female</b>	16.4	21.8	16.5
<b>Netherlands</b>	<b>Male</b>	-2.4	-4.1	-3.3
	<b>Female</b>	21.9	16.3	10.5
<b>Portugal</b>	<b>Male</b>	-3.1	-10.2	-5.0
	<b>Female</b>	3.1	-1.9	-3.6
<b>UK</b>	<b>Male</b>	-3.4	-4.7	-3.9
	<b>Female</b>	36.0	27.3	14.4

Note: Ireland 1997 and UK 1999. Data only includes Household Head and Spouse in the 20-49 Age Bracket. Ascendant relatives or other relatives excluded. 20-49 Age bracket.

Source: ELFS 2000 (own calculations), household Data (private households), 1999-2000

**Appendix Table IV.4. Employment rates for married women 20-49 by education, and age of youngest child in 2000.**

**(a) Low education qualification level**

Country	No child	0-2yrs	3-6yrs	Relative motherhood gap Child 0-2 yrs	Relative motherhood gap Child 3-6 yrs
Austria	66.1	58.8	54.3	89.0	82.2
Belgium	59.5	38.0	40.4	63.9	67.9
Germany	65.0	26.3	40.8	40.5	62.8
Spain	40.6	26.3	31.1	64.8	76.6
France	65.3	25.3	47.3	38.7	72.5
Greece	43.7	28.6	36.8	65.4	84.1
Italy	39.2	28.7	26.5	73.2	67.6
Luxembourg	55.6	40.0	50.0	72.0	90.0
Netherlands	60.2	39.3	52.8	65.2	87.6
Portugal	71.2	65.2	73.2	91.6	102.9
UK	66.1	29.0	43.3	43.8	65.5
EU	<b>53.4</b>	<b>31.5</b>	<b>39.3</b>	<b>59.0</b>	<b>73.7</b>

**(b) Medium education qualification level**

Country	No child	0-2yrs	3-6yrs	Relative motherhood gap Children 0-2 yrs	Relative motherhood gap Children 3-6 yrs
Austria	78.7	69.7	64.6	88.6	82.1
Belgium	71.9	66.7	73.3	92.8	102.1
Germany	80.9	52.9	60.9	65.4	75.3
Spain	61.1	52.1	48.5	85.4	79.4
France	79.7	51.0	70.2	63.9	88.1
Greece	53.2	40.4	49.0	76.0	92.1
Italy	69.8	56.8	59.1	81.4	84.7
Luxembourg	75.0	60.0	60.0	80.0	80.0
Netherlands	82.2	68.2	70.8	83.0	86.2
Portugal	84.9	83.7	92.3	98.6	108.7
UK	87.1	58.9	70.7	67.7	81.2
EU	<b>78.1</b>	<b>56.3</b>	<b>64.2</b>	<b>72.1</b>	<b>82.2</b>

**(c) High education qualification level**

<b>Country</b>	<b>No child</b>	<b>0-2yrs</b>	<b>3-6yrs</b>	<b>Relative motherhood gap Children 0-2 yrs</b>	<b>Relative motherhood gap Children 3-6 yrs</b>
<b>Austria</b>	90.0	80.0	76.2	88.9	84.7
<b>Belgium</b>	89.3	87.0	89.9	97.4	100.7
<b>Germany</b>	87.9	65.3	72.3	74.2	82.3
<b>Spain</b>	76.4	69.2	71.0	90.6	93.0
<b>France</b>	83.0	75.9	79.7	91.5	96.0
<b>Greece</b>	78.7	72.5	78.4	92.2	99.7
<b>Italy</b>	86.6	76.1	82.1	87.8	94.8
<b>Luxembourg</b>	66.7	66.7	(50.0)	100.	75.0
<b>Netherlands</b>	87.1	77.7	82.0	89.2	94.1
<b>Portugal</b>	93.0	96.8	100.0	104.0	107.5
<b>UK</b>	93.2	75.4	84.0	80.9	90.2
<b>EU</b>	<b>86.8</b>	<b>74.0</b>	<b>78.9</b>	<b>85.3</b>	<b>90.9</b>

Note : UK 1999; EU includes UK 99. Data are not available for Denmark, Finland and Sweden. Values for Luxembourg should be treated with caution

Source: ELFS (own calculations).

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