



**HAL**  
open science

# The Price of Prejudice: Labour Market Discrimination on the Grounds of Gender and Ethnicity

Andrea Bassanini, Anne Saint-Martin

► **To cite this version:**

Andrea Bassanini, Anne Saint-Martin. The Price of Prejudice: Labour Market Discrimination on the Grounds of Gender and Ethnicity. 2008. halshs-00312794

**HAL Id: halshs-00312794**

**<https://shs.hal.science/halshs-00312794>**

Preprint submitted on 26 Aug 2008

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

**THE PRICE OF PREJUDICE:  
LABOUR MARKET DISCRIMINATION ON THE GROUNDS OF GENDER AND ETHNICITY**

**ANDREA BASSANINI (OECD, ERMES)  
ANNE SAINT-MARTIN (OECD)**

**Abstract**

Despite some progress, there is still evidence of discrimination on the grounds of gender and ethnic or racial origins in OECD labour markets. Field experiments show pervasive ethnic discrimination in many countries. We show indirect cross-country/time-series evidence that, using product market regulation as an instrument, suggests that on average at least 8% of the gender employment gap and a larger proportion of the gender wage gap can be attributed to discrimination.

Virtually all OECD countries have enacted anti-discrimination laws in recent decades, and evaluations as well as cross-country analysis suggest that, if well-designed, these laws can be effective in reducing disparities in labour market outcomes. However, enforcement of anti-discrimination legislation is essentially based on victims' willingness to claim their rights. Thus, public awareness of legal rules and their expected consequences (notably, victims' costs and benefits of lodging complaints) is a crucial element of an effective policy strategy to establish a culture of equal treatment. However, legal rules are likely to have more impact if the enforcement is not exclusively dependent on individuals. In this respect, specific agencies may play a key role.

## Introduction

Employment outcomes are far from being evenly distributed among the various socio-demographic groups. Although women's rising labour market participation has been a major component in labour supply growth during past decades, their labour market performance still remains significantly worse than that of men, sometimes dramatically so: in certain countries female employment rates and wages are more than 25% lower than those of their male counterparts, even controlling for observable characteristics. Likewise, ethnic minorities appear to fare less well in OECD labour markets than workers belonging to majority groups (OECD, 2007a). Empirical evidence indicates that, in addition to factors determining labour supply patterns, discrimination in the labour market – *i.e.* the unequal treatment of equally productive individuals only because they belong to a specific group – might be one of the forces behind these large and persistent disparities. In a similar vein, recent OECD work on older workers and disabled persons stresses that changing negative employer attitudes is key to foster the employment prospects of these two under-represented groups and review the potential role of national anti-discrimination laws in this respect (OECD, 2006a, 2006b and 2007b).

Virtually all OECD countries have enacted anti-discrimination laws over recent decades. This important legislative effort has been primarily justified on the grounds of equity and social cohesion. This notwithstanding, to date, no comparable inventory of anti-discrimination legislation on gender and ethnic grounds has ever been produced and no assessment of these laws, in terms of their labour market implications, has been undertaken for the OECD countries as a whole. The present chapter is a first attempt to fill this gap.

In many OECD countries that are facing rapid population ageing, increasing the employment rates of under-represented groups is one key to offsetting labour shortages. Women still constitute the largest pool of underutilised labour supply. In addition, it is expected that there will be need for more worker immigration in the near future. This will only be possible if past and current immigrants, who are more numerous, are seen to be integrating in the host country (OECD, 2007c). Policy efforts of OECD countries to facilitate access to employment and increase the return to paid jobs for women and ethnic minorities, as well as other under-represented groups, are sizeable, and typically take forms such as specific labour market programmes, family-friendly policies or tax incentives. However, pervasive discrimination potentially impairs the effectiveness of such policies. Hence, it is important to quantify the extent of such discrimination if one wishes to put in place effective policies to minimise it.

The chapter starts by providing a picture of employment and wage disparities by gender and ethnic groups (Section 1). Part of these disparities is explained by easily identifiable factors, such as differences in educational attainment. There are a variety of potential explanations for the remaining part, including unobservable individual characteristics that affect productivity – *e.g.* socio-cultural differences in attitude towards work – and of course, discrimination. Section 2 explicitly focuses on the issue of discrimination. It presents various pieces of evidence on the extent of discrimination, relying on both a comprehensive review of the empirical literature on gender and racial discrimination in the labour market and new cross-country empirical analysis on the contribution of discrimination to gender employment and wage gaps. Finally, Section 3 documents and analyses the legal and institutional framework that OECD countries have gradually implemented to fight gender and racial discrimination in the labour market. It also provides some evidence that such policy efforts may have contributed to improve the labour market situation of women and ethnic minorities.

## Main findings

- Across the OECD countries, 20% fewer women than men have a job, on average, and they are paid 17% less than their men counterparts. Similar gaps are found when comparing ethnic minorities with their majority counterparts, although the average gap is more difficult to quantify because race-based statistics are illegal in many countries. Observable characteristics, such as education, experience, occupation, and, when available, motivation, expectations, and field of study, account for a large share of these gaps. Yet, they leave at least one fourth of gender and ethnic gaps unexplained.
- Gender and ethnic disparities in employment and wages have narrowed over time in OECD countries, although the pace of their contraction has slowed over time. As regards gender gaps, the educational catch-up of women is by far the most important factor responsible for the narrowing of the gap. Yet, its potential to reduce the gender gaps further appears to be largely exhausted in many countries.
- Field experiments show pervasive discrimination on the ground of ethnic origin in all countries where they are available. Moreover, indirect evidence shows that discrimination also plays a role in shaping gender disparities. Empirical estimates suggest that on average at least 10% of the narrowing of the gender employment gap in the past thirty years can be attributed to a reduction of the extent of discrimination.
- Pro-competitive product market deregulation, by limiting entry, survival and growth of discriminating firms, can play a significant role in reducing the extent of discrimination in the labour market. Estimates suggest that if all OECD countries liberalised their product market to the level of the country with the most pro-competitive regulatory stance, the average gender employment and wage gaps would fall by at least 1 and 3 percentage points, respectively. However, regulatory reforms are unlikely to eliminate all employers who operate discriminatory practices from the market and other policy interventions are necessary.
- Almost all OECD countries have established laws to combat discrimination on both gender and ethnic grounds. Nonetheless, enforcement of these regulations is essentially based on victims' willingness to claim their rights. As a consequence, public awareness and incentives for victims to lodge complaints are crucial elements of an effective anti-discrimination policy strategy. Moreover, legal rules, if well-known, may be an important vehicle of cultural change. Yet, in countries where such information is available, there is evidence that many people are not aware of their legal rights as regards discrimination in the workplace.
- Individual victims of discrimination still face strong barriers to bring a case before the courts: legal action remains a costly, complex, time-consuming and adversarial process in many countries. Alternative mechanisms of dispute resolution, such as formal mediation, are available in most countries under review. And in countries that have a long experience of such procedures, they have been shown to be effective in solving discrimination disputes. This notwithstanding, mediation will always work better against the background threat of litigation.
- Legal rules will have more impact if the enforcement is not exclusively dependent on individuals deprived of their rights. In most countries, there are specialised bodies empowered to investigate companies and organisations, and to take, even in the absence of individual complaints, legal actions against employers who operate discriminatory practices. The extent to which such measures are effectively implemented is rather unclear. For instance, in many countries, these bodies are not well equipped to sanction employers when they find evidence of discrimination.

- Empirical evidence on the impact of anti-discrimination legislation is scarce. Available evaluations, mainly focusing on the United States, as well as cross-country analysis, suggest that these laws may reduce gender and ethnic disparities in labour market outcomes. But further research is needed. In particular, the magnitude of these positive effects remains difficult to establish. Moreover, if not carefully designed, anti-discrimination laws may discourage employers from hiring disadvantaged groups in the first place. Legislation is only one possible tool to combat discrimination, and its interaction with other policy instruments to promote equality and diversity, such as positive and affirmative action, would also deserve an in-depth analysis.

## **1. Some stylized facts: gender and ethnic gaps in labour market performance**

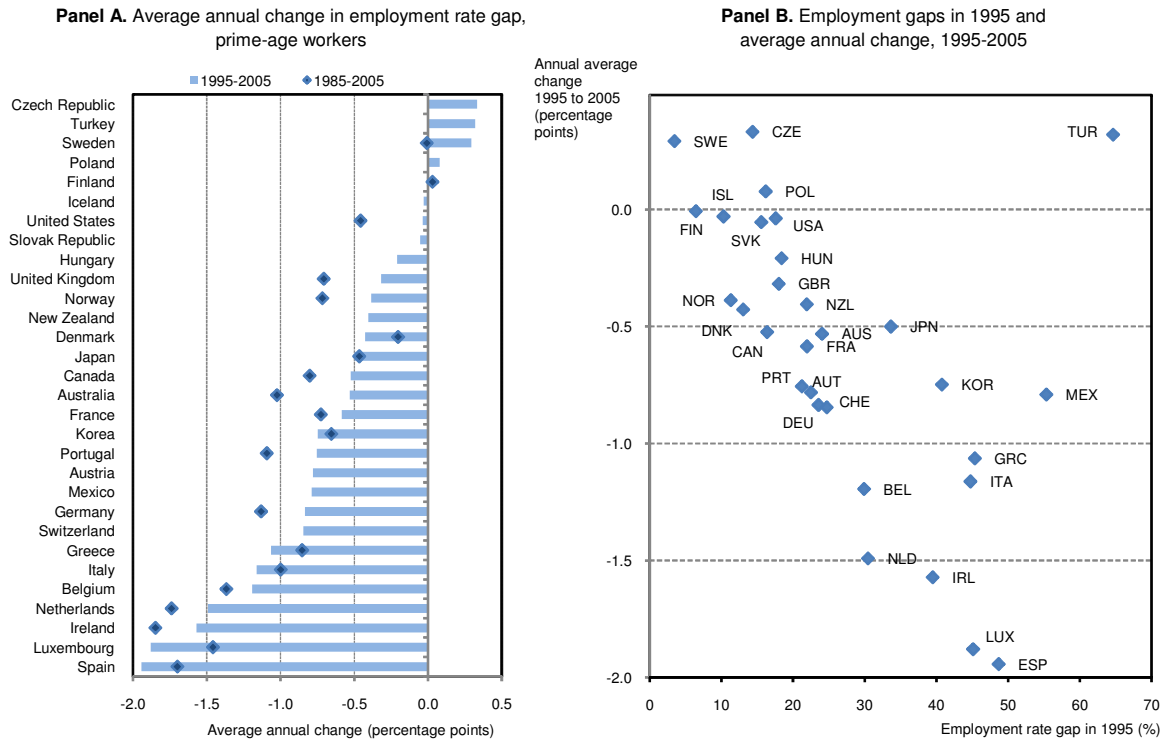
In most OECD countries, differences in labour market performance by gender and ethnic origin have been persistent over time, although the magnitude, nature and trend of these gaps vary across countries and have changed over time. A variety of economic, social or cultural factors can potentially explain these differences. Some of them, such as educational attainment, are easy to identify, while the role of some other factors is more difficult to assert, not least because they are not directly observable. Discrimination is part of this second category of latent sources of gender and ethnic disparities. This section presents the evolution of employment and wage gaps by gender and ethnic origin and assess how much of these gaps can be explained by changes in observable factors. What is left could be taken as a crude upper limit to the extent of discrimination in OECD labour markets.

### ***1.1. Gender disparities in the labour market***

*The gender employment gap has narrowed over time in the OECD area ...*

One of the most profound labour market developments in OECD countries over the post-war period has been the continued progress made by women (see *e.g.* OECD, 2002, Chapter 2). Female participation and employment have expanded considerably and the *employment gap* relative to men has narrowed virtually everywhere, although the pace of convergence differs significantly across countries (Figure 3.1, Panel A). In countries such as Spain, Luxembourg, Ireland and the Netherlands, the gender employment gap – defined as the difference between male and female employment rates as a percentage of the male employment rate – has narrowed by 1.5 percentage points or more per year in the last ten years, while countries such as the United States and Finland have experienced no change in the gap during the same period.

**Figure 3.1. The gender employment gap has narrowed over time and converge towards countries with low gaps**



Note: The gender employment gap is defined as the difference between male and female employment rates as a percentage of the male employment rate.

Source: OECD database on Labour Force Statistics.

... but the speed of contraction has substantially slowed down in most countries ...

In many countries, the shrinking of the gender gap in employment has somewhat slowed down in the past ten years. By restricting the comparison to only those countries for which data are available for earlier years, it appears that the narrowing of the gap was on average about 0.2 percentage points per year faster between 1985 and 1995 than between 1995 and 2005. This pattern, however, can essentially be explained by the fact that as laggard countries catch-up, their potential for further improvements is reduced. Similarly, cross-country differences in the reduction of the gap are by and large explained by the level of the gap at the beginning of the period (Figure 3.1, Panel B).<sup>1</sup>

These developments mostly reflect changes in the labour supply behaviour of women, a growing proportion of whom remain in the labour market throughout their working lives and combine paid work

1. The correlation coefficient between the average annual change and the initial level of the gap is -0.65 for the change between 1985 and 1995 and -0.53 for the change between 1995 and 2005. The latter figure, however, increases to -0.86 if Mexico and Turkey, two clear outliers in Figure 3.1, are excluded. Moreover the countries where convergence slowed between the two decades are those with the smallest employment gap in 1995 (the cross-country correlation coefficient being -0.57), that is those that were then closer to gender parity.

with caring of children and elderly relatives (see *e.g.* OECD, 2002; and Altonji and Blank, 1999). A variety of forces have driven the dynamics of female labour supply, including changes in family patterns and household formation that increasingly rely also on women's earnings in household income; increasing aspirations of women for the independence and fulfilment that paid employment can bring; and increasing policy efforts by governments aimed at raising female employment rates by providing tax incentives and suitable framework for family-friendly work environments (OECD, 2007d). At the same time, the dramatic increase in the average educational attainment of women that has been experienced by all OECD countries is by far the most important explanatory driver. For example, Bassanini and Duval (2006) find that, in their sample of 20 OECD countries, about 50% of the cross-country variation in the growth of female employment rates between 1982 and 2003 can be attributed to raising educational attainment, while only 28% was due to policies and institutions.

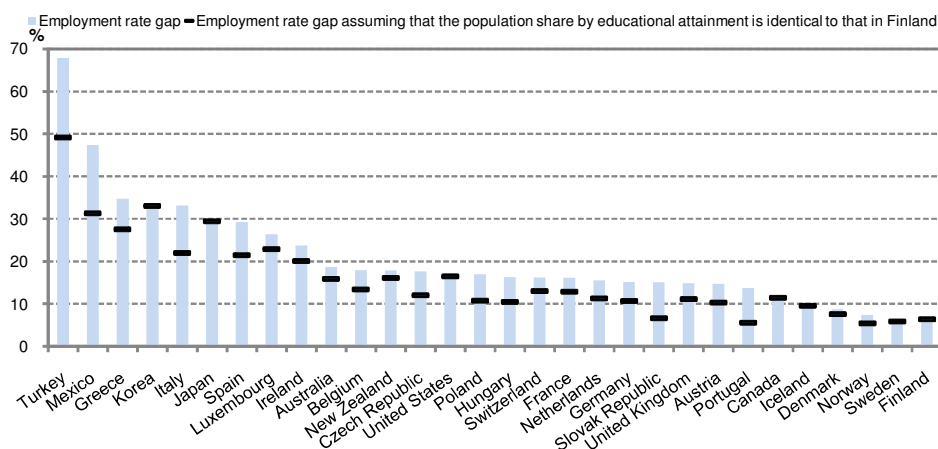
*... and gender disparities remain large*

In 2005, the employment rate of prime-age women was 10% to 20% smaller than that of their male counterpart in most OECD countries (Figure 3.2). Smaller gaps are found only in the Nordic countries, with Finland being the country with the smallest gap (6%). The gender employment gap is highest in Turkey, Mexico, Greece, Korea and Italy. With a gap well above 30%, these countries still lag dramatically behind the OECD average (20.6%).

It is possible to appraise the importance of educational attainment patterns in cross-section data (that are available for all OECD countries) by comparing employment gaps across countries for similar distributions of educational attainment in the population. Employment rates are generally much higher, and the gender gap lower, among women with a tertiary qualification than among low-educated women (see OECD, 2007e, statistical annex). In fact, higher education is likely to give women access to more interesting and well-paid occupations, making paid employment more attractive and formal child-care arrangements more affordable (see *e.g.* Altonji and Blank, 1999). Figure 3.2 shows hypothetical employment gaps that would result in each country if gender employment gaps by educational attainment remained unchanged, but the distribution of the population by gender and education were the same as in Finland, which is the country with the lowest overall gap. To the extent that Finland appears to be one of the countries in which educational attainment is the highest and where women have the greatest educational lead with respect to men, the comparison of actual and hypothetical gaps gives a rough estimate of how much the gender employment gap might be reduced by raising the level of qualifications.

**Figure 3.2. The gender employment gap still varies widely across OECD countries**

Employment gap between prime-age men and women, 2005<sup>a</sup>



*Note:* The gender employment gap is defined as the difference between male and female employment rates as a percentage of the male employment rate.

a) Data refer to 2003 for Japan.

*Source:* OECD database on Labour Force Statistics; OECD (2007g).

On average, the employment gap would be 20% (5 percentage points) lower if, with unchanged employment differentials by education, the distribution of the population by educational attainment were the same as in Finland. Not surprisingly, however, this improvement is concentrated in countries that are far from gender parity. Countries with low gender employment gaps appear to have already attained higher average educational attainment among women compared with their male peers. Combining this evidence with the fact that no or little further narrowing of the gender gap has occurred in these countries in the past ten years, one can cautiously argue that it is unlikely that major improvements in the gender gap can be reached in these countries through further improvement in human capital among women, and that accumulation of human capital alone can hardly reduce the gap below a floor of about 5%.<sup>2</sup>

#### *The wage gap between men and women persists ...*

In order to assess the relative importance of forces that drive gender employment disparities, however, it is important to look simultaneously at the *wage gap* (Bovenberg, 2007). In 2001, the latest year for which comparable data for a large number of OECD countries are available, women earned, on average, 17% less than men per hour worked, with however marked differences across countries (Figure 3.3). The gender wage gap also appears somewhat negatively related to the gender employment gap, as one would

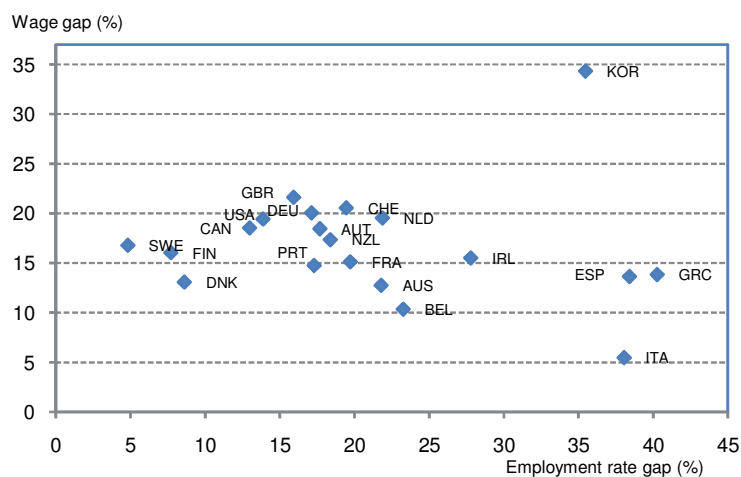
2. Labour demand factors have also played a role in shaping gender employment gaps, and they might play an increasing role in the future to the extent that the labour supply push, due to the evolution of educational attainment in the population, might slow substantially. For instance, the industry structure of labour demand has changed in a way that has favoured women, with a shift from agriculture and manufacturing towards services, where women tend to be over-represented (see *e.g.* OECD, 2002). In addition, upward shifts in aggregate labour demand (*e.g.* as a result of liberalisation reforms in the product and service markets and/or policy reforms aimed at reducing insider/outsider segmentation in the labour market) are likely to have disproportionately affected women who tend to be over-represented among new hires.



expect if labour supply patterns determined gender employment gaps and labour demand were the same for women and men (Olivetti and Petrongolo, 2006).<sup>3</sup> Yet, a few countries (the Nordic countries, Korea and a number of southern European countries) cluster away from the virtual negatively-sloped line linking employment and wage gaps. Moreover, a closer look at gender gaps by educational attainment suggests that the relationship between gender employment and wage gaps is weak, suggesting that other factors also play a role (Annex 3.B).

**Figure 3.3 Gender wage and employment gaps are weakly correlated**

Gender wage gap and employment rate gap for prime age workers, 2001



*Note:* The gender employment gap is defined as the difference between male and female employment rates as a percentage of the male employment rate. The gender wage gap is defined as the difference between average male and female hourly wages as a percentage of the average male wage. Data refer to 2000 for Sweden and to 2002 for the United States.

*Source:* See Annex 3.A1.

*... and a large part of it is not explained by easily observable characteristics*

Regression-based decompositions have been used in the literature to try to identify the sources of wage gaps between men and women. These decompositions allow assessing how much of the gap is explained by observed gender differences in terms of individual productive characteristics, the remaining unexplained portion being ascribed to differences in unobserved characteristics and/or asymmetries in labour demand (see Annex 3.B). Educational attainment and labour market experience typically explains only a small or even negligible portion of the gender wage gap. By contrast, labour market segmentation by occupation, type of contract, industry as well as firms and establishments typically explain a far larger share (see *e.g.* Altonji and Blank, 1999; Reilly and Wirjanto, 1999; Datta Gupta and Rothstein, 2005; Heinze and Wolf, 2006).<sup>4</sup> However, evidence based on large-scale matched employer-employee data

3. Within this view, in countries with higher female labour force participation, even women with relatively low return to paid job would participate in the labour market and have a job, which would widen the average wage gap in these countries. Conversely, the women with similar potential returns would choose to stay out of the market in countries with low participation, thus narrowing the gap.

4. In particular, persisting occupational gender segmentation appears to play a key role in explaining the gender pay gap. Women are still under-represented in managerial and top administrative occupations as well as in engineering professionals and technicians, while they are over-represented in clerical

shows that even taking into account a fine disaggregation of occupations, industries and establishments, more than 50% of the wage gap remains unexplained (*e.g.* Bayard *et al.*, 2003). More important, the gender distribution of jobs is itself the outcome of the equilibrium in the labour market. It provides therefore some indication of the channels through which a gender wage gap arises, but sheds no light on the ultimate causes of the gap.

A generalised contraction of the gender wage gap in the past thirty years is reported in the literature (see *e.g.* OECD, 2002).<sup>5</sup> For instance, in the United States the average gender wage gap declined from over 45% in 1979 to about 30% in the 1990s, and similar figures can be found for other countries (see Altonji and Blank, 1999). In their meta-analysis of the gender wage gap covering a large number of OECD and non-OECD countries, Weichselbaumer and Winter-Ebmer (2005) show a substantial contraction of the total wage gap between the 1960s and 1990s. A replication analysis undertaken for the purpose of this chapter on the same data, but limiting the sample to OECD countries, shows a similar pattern. This reduction appears to be mostly due to the evolution of observable characteristics such as educational attainment and changes in labour market experience. As a result, however, the unexplained share of the gap has increased over time. In addition, comparable evidence from household surveys for 15 OECD countries provides little evidence of further narrowing of the gender wage gap between 1994 and 2001 (Annex 3.B).<sup>6</sup> As in the case of the gender employment gap, these pieces of evidence could again reflect the end of the historical catch-up of women with respect to men in terms of educational attainment.

Several researchers have suggested that gender differences in individual characteristics that are usually not available in standard datasets can account for the large unexplained portion of the gender wage gap typically found in regression-based decompositions, as well as for the large contribution to the gender wage gap stemming from gender segmentation in the labour market. These include factors affecting gender differences in the quality of the labour supply such as the quality of education and field of study, as well as personal traits including expectations and motivation.<sup>7</sup> For example, using recent UK data on a cohort of graduates, Chevalier (2007) shows that differences in motivations, expectations and field of study can explain up to 70% of the observed wage gap.

Although these factors can be seen essentially as labour supply determinants, the gender wage gap is also likely to be affected by the way the labour market rewards them. For instance, Blau and Kahn (1996, 2000, 2003) show – albeit under somewhat extreme assumptions (see Annex 3.B) – that institutions shaping the dispersion of the returns to unobserved productive skills, and more generally of the wage distribution, have an important impact on the gender wage gap. However, the importance of the wage distribution in explaining the gap must not be overstated. For instance, while there is a strong cross-country correlation between wage dispersion and the gender wage gap (see Bettio, 2002; and Blau and Kahn,

---

occupations and sales jobs where average wages tend to be lower (see *e.g.* Groshen, 1991; and OECD, 2002). Segmentation by industry and type of firm or establishment appears also to play a key role.

5. Comparable evidence, however, is usually based on weekly, monthly or annual earnings (*e.g.* OECD, 2002) and might therefore also reflect greater work attachment by women.
6. National surveys for EU countries confirm this pattern, with however marked differences between recent and older members, the former, mainly countries of eastern Europe, still showing a significant downward trend (European Commission, 2007a).
7. Personal traits such as leadership, motivation, self-esteem and aggressivity are typically found to be correlated with wages (see *e.g.* Bowles *et al.*, 2001). Motivations and expectations differ significantly by gender. For instance, Chevalier (2007) reports that men are more likely to self-define themselves as ambitious, state that career development and financial rewards are very important long-term values and expect their partner to take a career break after child-birth, while women put forward job satisfaction, being valued by their employer and doing a socially useful job as more important for them.

2003), this appears to be essentially due to few countries with wage dispersions far from the OECD average (Annex 3.B).

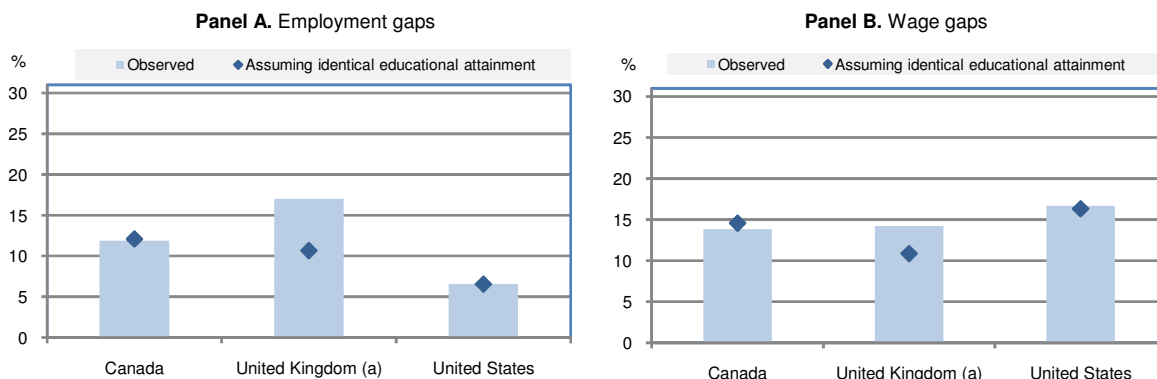
### 1.2. Employment and wage gaps of ethnic minorities

*Racial gaps in employment and wages appear large in countries where data are available ...*

The analysis of labour market inequalities by ethnic origin is more difficult due to the fact that explicit collection of data on race is illegal in many OECD countries, which restrains enormously the number of countries for which racial disparities can be observed and racial gaps computed. Figure 3.4 presents comparative evidence on racial employment and wage gaps in three countries (Canada, the United Kingdom, and the United States) where these data are available. Even though racial employment gaps appear to be substantial, educational attainment plays a role in explaining their cross-country differences. By contrast, this does not seem to be the case as regards the racial wage gap. However, this might be simply due to the limited information on educational attainment used in the international comparison. In fact, available US evidence suggests that, controlling for measures of actual competences and areas of residence it is possible to explain up to almost three-quarters of the racial wage gap (see *e.g.* Altonji and Blank, 1999).<sup>8</sup> It is not clear, however, whether this result generalises to other countries.

**Figure 3.4. Differences in educational attainment play a role in shaping racial employment and wage gaps**

Employment and wage gaps between "white" and "non-white" groups in Canada, the United Kingdom and the United States, prime-age workers in the private sector, 2004-2005, in percentage



*Note:* The employment gap is defined as the difference between white and non-white employment rates as a percentage of the white employment rate. The wage gap is defined here as the difference between median white and non-white hourly wages as a percentage of the median white wage. Data refer to 2004 for Canada, and 2005 for the United Kingdom and the United States.

a) Education level is not available for the foreign-born population. Hence, this group has been excluded from calculations of gaps adjusted by educational attainment.

*Source:* Canada: CNEF; United Kingdom: Labour Force Survey, September-November 2005; United States: CPS.

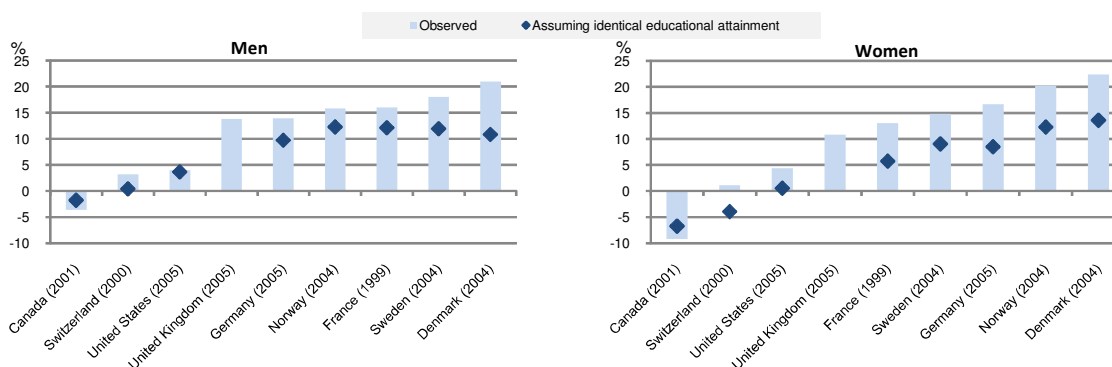
In many countries, however, ethnic diversity is essentially due to migration flows. One can obtain some rough information on disparities by ethnic origin by looking at employment rates of the *second*

8. Residential segregation might result from housing discrimination with cumulative effects on labour market performance (see *e.g.* Blank, 2005). However, the analysis of this channel is outside the scope of this chapter.

generation – i.e. the native-born with foreign-born parents. When looking at figures based on the second generation, however, one has to keep in mind that a number of countries are multi-ethnic and multi-racial societies in which minority groups are not concentrated in the population with recent immigration background. In addition, in many countries, a large fraction of immigrants come from other OECD countries with similar ethnic composition of the population (OECD, 2008b). In fact, Heath *et al.* (2007) show that, in traditional immigration countries for which data are available, ethnic or racial minorities with no immigration background tend to fare worse in the labour market than the second generation, even controlling for differences in educational attainment. This notwithstanding, with the exception of Canada, employment rates of the second generation appear well below employment rates of native-born with no recent immigration background (Figure 3.5).<sup>9</sup> In countries such as Denmark, Norway and Sweden the employment rate of the second generation is more than 15% smaller than their native-born counterparts with no immigration background.

**Figure 3.5. The second generation has a lower employment rate than the native-born without a migration background, but its lower educational attainment explains about one half of the employment gap**

Employment gaps between the second generation and native-born with no migration background, persons aged 20 to 29 years and not in education, percentages



*Note:* The second generation is defined as native-born, with two parents foreign-born except for Switzerland, native-born with foreign nationality at birth, and the United Kingdom, native-born with “ethnic background other than white British”. Native-born with no migration background have two parents native-born except for Denmark, at least one parent native-born, Switzerland, Swiss nationality at birth, and the United Kingdom, white British ethnic background. The employment gap is defined as the difference between the native-born and second-generation employment rates as a percentage of the native-born employment rate.

*Source:* OECD (2007a).

... but disparities in educational attainment are part of the story

In most countries, however, the average educational attainment of the second generation is lower than that of the native-born population without a migration background. This is not surprising, taking into account that much of the post-war labour migration to European OECD countries was low qualified, and empirical evidence suggests that educational attainment, and more generally human capital, is transmitted across generations.<sup>10</sup> Figure 3.5 shows employment gaps between the second generation and the native-born population without a migration background that would result in each country if employment gaps by educational attainment remained unchanged, but the distribution of the population by educational

9. Since immigration is a relatively recent phenomenon in a number of countries, comparison is restricted to young adults aged 20-29.

10. See *e.g.* Currie and Moretti (2003) and Black *et al.* (2005).

attainment were the same in the two groups. With unchanged gaps by educational attainment, it appears that the employment lag of the second generation would be reduced by about one half if it caught-up completely with the native-born population in terms of educational attainment.

*To sum up*, this subsection presented evidence suggesting that several factors other than discrimination help accounting for part of the observed gender and ethnic gaps in employment and wages. However, labour market discrimination may also play a role:

- First, while the accumulation of human capital and the educational catch-up of women explain most of the narrowing of the gender employment gap in the post-war period, the educational push appears to be nearly exhausted in many countries, *leaving the gender employment gap above a floor of 5% to 10%*.
- Second, even in the most detailed analyses that include the influence of usually unobserved characteristics such as personal traits, expectations and motivation – *observable exogenous explanatory factors typically leave unexplained at least one quarter of gender or ethnic gaps*.

Moreover, it is not obvious that observable factors that are typically assumed as exogenous – such as motivation and expectations – are determined independently from labour market equilibrium. For example, if discriminatory practices or other factors lower women’s wages relative to men’s, they are likely to influence the decisions couples make as to who will drop out of the labour force to care for children, whose career will determine the location of the family, etc. To some extent, the same argument can apply to educational decisions and choice of field of study (Blau and Kahn, 2007).

## **2. From labour market disparities to discrimination**

The presence or absence of labour market discrimination cannot be ascertained by simply looking at gaps in labour market performance, even when these gaps are adjusted for many observable characteristics. Indeed, any unexplained residual cannot be attributed entirely to discrimination. The identification of possible discrimination requires either controlled experiments or the selection of exogenous variables that are likely to affect labour market disparities mainly through discrimination. But before going further in the empirical analysis of the potential contribution of discrimination to the observed differences in labour market performance by gender and ethnic groups, the concept of discrimination itself needs to be defined and understood more precisely.

### **2.1. Entering into the black box**

In this chapter, following the definition used in mainstream labour economics, discrimination in the labour market is defined as “a situation in which persons who provide labour market services and who are equally productive in physical or material sense are treated unequally in a way that is related to an observable characteristics such as race, ethnicity or gender” (see Altonji and Blank, 1999, p. 3168). This begs the following questions: What are the rationales for employers to offer different employment opportunities and/or different wages to equally productive workers? Or alternatively, how may market forces allow discrimination to arise and persist? Answering these questions is important because the different, and usually complementary, explanations put forward by the economic theory allow selecting the exogenous variables that can be used empirically to identify discrimination when controlled experiments are unavailable or inconclusive.<sup>11</sup>

---

11. In addition, the menu of available policy instruments, will depend, at least in part, on the nature of discrimination (see below).

The first, and perhaps most straightforward, explanation proposed by economists is based on employers having a taste or preference to be associated with some persons instead of others. However, by forsaking productive minority employees, prejudiced employers lose profit opportunities, and this type of discrimination should be smaller, the greater the degree of competition in the product market (see Box 3.1). In virtually all alternative explanations for labour market discrimination, imperfect information about workers' abilities constitutes the core rationale for discrimination to arise. If employers cannot measure the exact productivity of heterogeneous job applicants, they use their beliefs and whatever information is available to estimate applicants' potential productivity. This information may include such obvious indicators as education, previous experience and references, but also race or sex if employers believe them to be useful, *i.e.* correlated with the unobserved determinants of performance. To some extent, individuals belonging to the same group will be assigned the same expected ability by employers. As a result, wage and job offers will depend on both individual indicators and his/her group's average characteristics. In that case, persistent wage and employment differentials may arise between workers with the same productivity who belong to different, identifiable groups, even in competitive markets (see Box 3.1).

### **Box 3.1. Some theoretical considerations on labour market discrimination**

Following the seminal work by Becker (1957), a core explanation for labour market discrimination is based on economic agents having a taste or preference to be associated with some persons instead of others, which can be held by employers, employees or consumers (for recent surveys, see Altonji and Blank, 1999; and Donohue, 2005). In this theory of "taste-based" discrimination, prejudiced consumers derive their utility both from consumption of goods and services and from the type of person engaging in market transactions with them. Similarly, when employing minority workers, prejudiced employers act as if they must not only pay the market wage, but also pay a so-called "discriminatory psychic penalty" (a similar argument applies in the case of prejudiced co-workers). Just as a labour tax would be expected to lower employment and/or wages of workers in a competitive market, this penalty lowers the quantity demanded and earnings of minorities. And the greater the number of prejudiced employers, or the stronger the intensity of their preference, the greater are the wage and employment gaps between the two groups of workers. Besides, even if there are enough unprejudiced employers around to hire all minority workers, wage disparities may persist. In the presence of any labour market imperfection that renders job search costly, unprejudiced employers will take advantage of the fact that minority workers have less attractive labour market alternatives to offer them lower wages (Black, 1995).

One of the key features of "taste-based" discrimination, when based on employers' tastes, is that it burdens not only discriminated workers, but also imposes a cost on prejudiced employers. Indeed, by giving up productive minority employees, discriminatory employers bear higher average labour costs and thus lose profit opportunities. Hence, this kind of discrimination should be reduced by increased competitive pressure, which would limit entry, survival and market shares of prejudiced employers in the product market. Yet, even if a perfectly competitive product market were attainable, this might not guarantee the full elimination of "taste-based" discrimination. For instance, if employers form a heterogeneous population with different entrepreneurial abilities, some prejudiced employers – those with high entrepreneurial abilities – will still remain on the market. This, combined with the fact that only a few prejudiced firms may cause employment and wage disparities between minority and majority workers to arise when job search is costly, will lead to a situation where competitive product markets are compatible with some forms of "taste-based" discrimination.<sup>a</sup>

Virtually all other explanations for labour market discrimination are not based on preferences. Instead, imperfect information about workers' abilities constitutes the key rationale for discrimination to arise, which is usually called "statistical discrimination" (see Phelps, 1972; Arrow, 1973; Altonji and Blank, 1999; and Donohue, 2005, for recent surveys). A basic premise is that easily observable characteristics, such as sex or ethnic origin, may convey some additional information about workers' productivity and it is costly or impossible to develop individual tests to infer their productivity more precisely. In other words, employers simply postulate that such individual characteristics are correlated with the unobserved determinants of performance. Hence, hiring and wage decisions are in part based on prior beliefs or stereotypes, be they true or false. Individuals are partly assigned the expected abilities of the group they belong to, which constitutes a rational (and potentially privately efficient) response of firms to uncertainty about an individual's productivity, given its information and beliefs and the cost of resolving that uncertainty.

As a result, minority workers with above-average ability receive lower wages than majority workers of similar abilities. However, if employers' behaviours are founded on true stereotypes, this "so-called" statistical discrimination is

likely to be observed at the individual level only: on average, wage differentials will reflect the average differential in productivity between the two groups of workers. Obviously, this statement does not hold anymore in the case of false stereotypes. Besides, even in the absence of strong prior beliefs or stereotypes, minority and majority workers with the same distribution of abilities may be treated differently if employers are more accurate judges of the talents of nonminority workers than of minority workers (Aigner and Cain, 1977). Here again, the optimal statistical rule that employers apply to set employment and wage levels will imply that minority workers with above-average ability receive lower wages than majority workers of similar abilities (the reverse being true for those minority workers with the lowest abilities). And on average, minority workers receive lower wages than nonminority, as far as employers have some degrees of risk aversion. Finally, such statistical judgments, be they the result of stereotypes or asymmetrical information, might be self-confirming. Preparing to work requires investment by the worker and not all of this investment is observable. If an employer is going to judge workers based on his/her prior beliefs and the worker is aware of this, there is no or limited rewards for this investment. They will not be made, and then the statistical judgments will be confirmed.

a) Likewise, if discrimination does not arise directly from employers or co-workers, but from customers who prefer to interact with majority workers and are prepared to pay for this, these discriminatory tastes will remain also in competitive markets, preserving wage and employment disparities between minority and majority workers.

## 2.2. *Direct evidence on discrimination: field experiments*

*Evidence of hiring discrimination on racial and ethnic grounds in OECD countries is unambiguous ...*

Although limited to discrimination in hiring practices only, audit and correspondence testing studies provide the cleanest direct evidence on labour market discrimination. In both cases, carefully matched pairs of testers (from different gender or ethnic group) apply for the same job and evidence on discrimination is inferred from the degree of cross-group asymmetry in the distribution of successes. While audit studies use real testers, typically professional actors, and allow investigation of all stages of the recruitment process, correspondence tests are based on sending written job applications only, and successes are simply measured as call-backs to interviews. However, the main advantage of correspondence tests is that all aspects of the experiment can be controlled for. By contrast, several researchers have argued that the main weakness of audit studies is that, insofar as they involve actors, they cannot prove that experimental conditions are completely controlled for (see Box 3.2).

Corresponding tests on ethnic discrimination have been done in at least nine OECD countries (Table 3.1). Estimated discrimination rates vary across studies, due not only to geographical location (country and region or city) but also to type of jobs and minority groups tested.<sup>12</sup> But, all studies yield significant estimates. Overall, they show that the probability of being called back for an interview after an application is several percentage points lower for minority-group applicants. These results are confirmed by audit studies. Keeping in mind the caveats mentioned above, they also suggest that discrimination at the shortlisting stage is also reflected in fewer jobs offered to minority-group members.<sup>13</sup>

---

12. Two alternative measures of the discrimination rate are reported in the table. They differ with respect to the way the event of no callback for both applicants is treated. According to Heckman (1998), this is equivalent to evidence of equal treatment and must be included in the denominator for the computation of the rate. By contrast, Riach and Rich (2002) argue that it provides no information and should be excluded. McNemar's tests (see Somes, 1983), used in the table to compare results from the different studies, are however independent from the chosen definition. Three studies for France (Amadieu, 2004, 2005, 2007) are not included in Table 3.1 since it is not possible to present their results using standard definitions of discrimination rates. Nevertheless, results from these studies appear consistent with those presented in the table.

13. See *e.g.* Kenney and Wissoker (1994), Bendick (1998), Nunes and Seligman (1999), de Prada *et al.* (1996), Arrijn *et al.* (1998), Bovenkerk *et al.* (1994), Goldberg *et al.* (1995) and Allasino *et al.* (2004).

### Box 3.2. Audits and correspondence tests: strengths and weaknesses

The technique of *audit studies* (also known as situational tests) consists of having randomly selected pairs of testers applying for a specific job over the telephone or in writing and, eventually, attending the job interview. Testers, who are usually specifically-trained professional actors from two different ethnic or gender groups, are matched on their characteristics, in such a way that they are supposed to differ only with respect to race or gender, while having similar fictitious backgrounds and personal attributes. Majority-group testers represent therefore a control group for their matched minority-group testers. The experiment is then repeated for several job vacancies, possibly with multiple testers. It is then possible to count the number of occurrences in which testers from each group are successful and devise an estimate of the hiring discrimination rate from this comparison. This technique has been used extensively in UK and US studies concerning both race and gender differences in hirings (see Riach and Rich, 2002 for a survey). It has also been used in ILO studies on immigrant workers, which concern several OECD countries (see Simeone, 2005).

Audit studies, however, have a number of weaknesses. First, matched testers should be equal in employers' eyes except for gender or ethnic origin. Despite training and the use of professional actors, it is often very difficult to provide a compelling proof that matched testers are identical in all respects. Heckman (1998) notes that testers might differ with respect to some attribute that employers regard as valuable but that cannot be easily codified (say, social capital shown in interpersonal relationships) and therefore controlled in audit experiments. In particular, depending on the distribution of such attributes among testers, different results might come out from the audit study (including a finding of no or reverse discrimination when discrimination actually takes place). Second, audit studies are not double-blind, in the sense that testers know the purpose of the experiment and might consciously or unconsciously try to influence the outcome (Bertrand and Mullainathan, 2004). In addition, audit studies are expensive, which limits dramatically the number of testers that can be used as well as the number of jobs testers can apply for. As a result, the study design is usually circumscribed to specific jobs and characteristics (narrowly-defined occupation profiles, one single level of educational attainment, etc.), making it difficult to assess whether results are representative of the reference population of firms, jobs and workers.

*Correspondence testing studies*, by contrast, circumvent most of these limitations. The principle of the correspondence test is that pairs of carefully-matched fictitious resumes are sent in response to real job ads posted on some pre-defined media (e.g. newspapers, internet websites, etc.), and the success of majority and minority groups is measured by call-backs to interviews. Insofar as resumes are fictitious, a pool of similar resumes can be generated and they can be randomly assigned to fictitious applicants. Remaining within-pair differences in terms of characteristics are therefore random, except for those identifying gender or ethnicity. Ethnic-sounding names and/or place of birth are typically used in the latter case. When place of birth is used, however, immigrants have typically migrated with their family when young and they have received their whole education in the host country. The fact that all applicants are fictitious allows a perfect control of observable characteristics, complete disclosure of experimental details (including all resumes), and in principle, a relatively large sample (even though large samples are rare in practice; see in particular Bertrand and Mullainathan, 2004; and Carlsson and Rooth, 2007). However, in contrast with audit studies, discrimination is measured here as differences in invitations to an interview rather than in job offers, which might result in biased measures of hiring discrimination rates, if there are cross-group differences in call-backs that are not reflected in cross-group differences in job offers. However, usually no reverse discrimination is found in audit studies conditional to admission to interview. Therefore one can argue that discrimination in callbacks implies overall hiring discrimination and, hence, correspondence testing studies provide at least qualitative evidence on the presence and direction of hiring discrimination.



**Table 3.1. Ethnic minorities have a lower probability of being called back for an interview**

Summary of results of correspondence testing studies of discrimination by ethnic origin, 1980-2007

	Country (region) year	Occupations/Jobs covered	Group-identifying characteristics (minority group tested)	Net rate of discrimination % points, Heckman's definition <sup>a</sup>	Net rate of discrimination % points, Riach and Rich's definition <sup>b</sup>	Net difference in call-backs as a % of call-backs for the minority group <sup>c</sup>
Carlsson and Rooth (2007)	SWE (Stockholm and Gothenburg) 2005-2006	Computer professional, business sales assistant, pre-school teacher, compulsory school teacher, accountant, nurse, construction worker, restaurant worker, shop sales assistant and motor-vehicle driver	Name (Middle-Eastern)	9.7***	28.9***	49.5
Cedey and Foroni (2007)	FRA (Lille, Lyon, Marseille, Nantes, Paris, Strasbourg) 2005-2006	Manager, clerk, nurse, hotel and restaurant worker, construction worker, technician, factory worker, motor-vehicle driver	Name (African)	17.7***	54.1***	205.0
Duguet <i>et al.</i> (2007)	FRA (Ile de France), 2006	Accountant	Name (Moroccan)	5.4**	Not available	Not available
Bertrand and Mullainathan (2004)	USA (Chicago and Boston) 2001-2002	Salesperson, administrative support worker, clerk, customer service worker	Name (African-American)	4.9***	29.5***	49.6
Arrijn <i>et al.</i> (1998)	BEL (Brussels-Capital Region), 1996	Various jobs, mainly waiter, sales assistant, clerk, manual worker and representative	Name (Moroccan)	Not available	26.1***	40.0
Esmail and Everington (1997)	GBR (England) 1997	Trained medical doctor (senior house officer)	Name (Asian)	16.0*	27.6*	44.4
Hjamø and Jensen (1997)	DNK (Copenhagen), 1996	Salesperson, clerk, teacher, manual worker	Name and parents' origin (Turkish and Pakistani)	10.0***	35.3***	88.9
Goldberg <i>et al.</i> (1995)	DEU (Rhine-Ruhr region and Berlin) 1994	Medical gymnast, foreign language correspondent, sales assistant, industrial merchant, banking salesman, construction draughtsman, designer, lay-out worker, assistant computer worker, nurse	Name and country of birth (Turkish)	2.1***	9.7***	11.9
Bovenkerk <i>et al.</i> (1994)	NLD (Randstad area) 1993-1994	Primary or secondary school teacher, laboratory assistant, administrator, financial manager, personnel manager	Name and country of birth (Surinamese)	9.6***	17.8***	26.9
Esmail and Everington (1993)	GBR (England) 1992	Trained medical doctor (senior house officer)	Name (Asian)	19.4**	50.0**	100.0
Riach and Rich (1991)	AUS (Melbourne) 1984-1988	Secretary, sales representative and clerk	Name (Greek and Vietnamese)	8.9***	17.7***	21.7
Firth (1981)	GBR (England) 1977-1988	Accountant, financial manager	Name and country of birth (Asian and African)	29.9***	43.8***	80.1

a) Difference in the number of call-backs between majority and minority groups as a percentage of the number of jobs applied for (jobs for which no call-back is registered are treated as providing evidence of equal treatment);

b) Difference in the number of call-backs as a percentage of jobs applied for with at least one observed call-back (jobs for which no call-back is registered are excluded from the sample);

c) This figure corresponds to the percentage increase in applications required for minority-group members to have the same call-back chances as majority-group members. \*, \*\*, \*\*\*: statistically significant at the 10%, 5%, 1% level, respectively (based on McNemar's exact test, except for the study by Duguet *et al.* (2007), where it is based on tests reported by the authors).

Source: Studies cited in the first column.

What is the economic cost that ethnic minorities have to pay to equalize the number of call-backs of their majority-group counterparts? As shown in the last column of Table 3.1, ethnic minority applicants typically need to send between 40% and 50% more applications to receive the same number of call-backs as their majority-group counterparts, with lower figures only in a few cases. Assuming that minority and majority-group members have the same ability of searching for new job vacancies, and have the same chances as majority-group members to receive a job offer conditional to the interview,<sup>14</sup> this figure would imply that minority-group members typically have to search on average for 40% to 50% longer than their majority-group counterparts before receiving a job offer, which, if unemployed, translates into correspondingly longer unemployment durations.<sup>15</sup> Additional information can be gathered from studies in which variations of personal characteristics have been explored in such a way that returns to these characteristics can be estimated and compared with discrimination rates. For instance, Bertrand and Mullainathan (2004) show that, in their samples for Boston and Chicago, blacks need eight additional years of labour market experience to equalize the call-back probability of whites.

*... and the few existing large scale experiments show that women fare better in “blind” recruitments*

Correspondence testing and audit studies on gender are much less numerous and are also less conclusive. In fact, any gender discrimination pattern appears to depend crucially on the type of occupation. Given the specific nature of these studies, which often focus on a small number of occupations in a given geographical area, it is difficult to make even rough inferences on the impact of discriminatory behaviours on *aggregate* hiring and employment patterns. In general, until the end of the 1990s, all studies tended to find discrimination against women in male-dominated and mixed occupations – *i.e.* in occupations where the share of women is below a certain threshold in national statistics – and reverse discrimination (or discrimination against men) in female-dominated occupations (see Riach and Rich, 2002, for a survey). Recent correspondence-testing evidence confirms that the way employers shortlist applicants can increase gender segregation in the labour market because estimated discrimination rates are closely related to the share of women in a particular occupation. Nonetheless, these recent studies provide a more mixed picture,<sup>16</sup> which might point to a decrease in the incidence of hiring discrimination against women over time. However, the limited sample size per occupation and the limited number of sampled occupations of these studies suggests that no firm conclusion can be derived from them on this issue. In her study of the French banking industry, Petit (2007), by focusing on all occupations in a single industry where women are over-represented in employment with respect to the national average, partially tackles these problems. She finds that childless women aged 25 years applying for high-skilled jobs need to send out 30% more applications than their male counterparts to obtain the same number of interviews.<sup>17</sup>

So-called “blind” recruitment procedures are sometimes used by employers. In many cases, these procedures can provide large scale quasi-natural experiments, overcoming the problem related to the limited sample size and number of sampled occupations of certain correspondence tests and audit studies. For instance, a number of US orchestras modified their recruitment procedures since the 1970s, often adopting a screen or other device to hide the auditioning musician from the recruitment committee. In a

---

14. These are cautious assumptions insofar as ethnic minorities are likely to be less efficient in searching for new vacancies and, as suggested by audit studies, are likely to have a lower probability of job offer conditional to being granted an interview.

15. Assuming that the arrival of advertised job vacancies follows an exponential distribution and that search effort does not vary across groups and along the unemployment spell. The latter assumption is undoubtedly restrictive.

16. See Weichselbaumer (2004) for Austria, Riach and Rich (2006) for the United Kingdom and Carlsson (2007) for Sweden.

17. By contrast, no significant gender difference is found in low-skilled jobs.

famous paper, Goldin and Rouse (2000) exploit differences in the recruitment procedures across orchestras to show that the use of blind auditions increased dramatically the proportion of hired women. Similarly, between October 2004 and June 2006 two districts of the Swedish city of Gothenburg participated in a pilot programme involving recruitment based only on strictly anonymous job applications. Aslund and Nordström Skans (2007) evaluate the policy pilot by using applications in another similar city district as a control group. They find that anonymous application procedures increased the probability of call-back by more than 20% for both women and immigrants of non-western origin, eliminating all gender and ethnic differences in callbacks. However, while women appear to have benefited from the scheme also in terms of job offers, no such gain was estimated for immigrants.<sup>18</sup>

Taken as a whole, field experiments offer an impressive snapshot of the occurrence of hiring discrimination, particularly as regards ethnic minorities. The main strengths of these studies are that the experimental set-up is controlled and they focus on the overall effect of discriminatory behaviours. This implies that, if there are multiple discriminatory behaviours related to different sources of discrimination (due, for instance, to stereotypes and preferences, see Box 3.1 above), it is the average effect resulting from the addition of these behaviours that emerges in field experiments, which is the first element that matters for policy and policy evaluation. The disadvantage of many field experiments is, however, that they are often confined to small samples of occupations, and it is sometimes difficult to understand how results that do not unanimously point in the same direction can be generalised. As discussed above, this problem is relevant for gender discrimination. In the studies where this issue is taken into account, hiring discrimination against women appears to emerge. Yet, these studies are too few to draw general conclusions.

### **2.3. Indirect evidence on specific sources of discrimination**

In contrast with field experiments, most studies testing propositions derived from theoretical models are designed to provide evidence on one or more specific sources of discrimination. As such, when evidence of one type of discrimination is found, these studies yield a lower bound of the extent of overall discrimination – that is, they may account for discrimination derived from one source (*e.g.* taste-based discrimination), but not others (*e.g.* statistical discrimination). This principle holds unless two different sources of discrimination elicit discriminatory behaviours that mutually cancel each other, which seems a priori unlikely. In other words, if the goal is to know the extent of overall discrimination, this class of approaches sheds additional light only when clear-cut evidence on the type of discrimination which is the object of study emerges.<sup>19</sup> But unlike field experiments, these studies typically cover a large number of occupations as well as large geographical areas. Thus, they can provide valuable complementary information on overall discrimination, particularly when evidence from field experiments is less clear-cut or can be more difficult to generalise, such as in the case of gender discrimination.

---

18. One can perhaps explain this latter finding on the basis of the extreme requirements of the recruitment procedure required by the Gothenburg pilot. Applicants were in fact asked to erase from their resumes all information from which origin could be identified, including geographical location of schools. The latter is much more likely to confound the experimental outcome in the case of non-western immigrants. Unfortunately, information on the second generation, which would have provided a more reliable test, is not available in these data.

19. For instance, in a famous paper, Altonji and Pierret (2001) argue that if firms statistically discriminate on the basis of race or gender because they use race or gender to proxy for characteristics that are difficult to observe at the time of hiring, as they learn about the real productivity of their employees over time, wage returns to race and gender should fall. They apply this intuition to US data from the National Longitudinal Survey of Youth and find no evidence that the wage penalty for blacks decrease with experience. Yet, while providing evidence of lack of statistical discrimination, Altonji and Pierret's results are consistent with the presence of race discrimination due to *e.g.* preferences.

*Many US studies show indirect evidence of discrimination against women and minorities*

Many studies on US data have searched for indirect evidence of taste-based discrimination by testing predictions derived from theory. As discussed above, if discrimination is mainly based on employers' preferences, or more generally if it is privately inefficient, discriminatory firms should earn lower profits and discrimination should therefore be reduced by greater competitive pressure in product markets (see Box 3.1). More specifically, many studies have looked at the relationship between measures of product market competition and employment or wage gaps by gender or ethnic origin. If no additional explanation for a negative relationship between competition and labour market gaps can be provided, empirically establishing such a relationship would provide supporting indirect evidence of discrimination. Overall, with few exceptions, US studies of the relationship between product market competition and employment or wage gaps suggest that discrimination has been playing a role in shaping both gender and race gaps in the United States (Box 3.3).

### Box 3.3. Evidence on taste-based discrimination from country-specific studies

If discrimination is mainly based on employers' preferences, or more generally if it is privately inefficient, discriminatory firms should earn lower profits, and discrimination be reduced by greater competitive pressure (see Box 3.1). In order to find evidence for these predictions, a few studies use US firm-level data to look at the relationship between employment composition by ethnic origin or gender and either the gap between productivity and wages or profitability. For example, Hellerstein *et al.* (1999) use matched employer-employee data and find that lower relative earnings of women do not appear to be entirely reflected in lower marginal productivities while lower relative earnings of blacks do, suggesting a pattern of discrimination against women. Hellerstein *et al.* (2002) find a positive relationship between the percentage of female employees and profitability in plants with large market shares (interpreted as operating in relatively non-competitive segments of the market), but not in small-share plants (interpreted as belonging to competitive segments). They conclude that these findings are consistent with presence of taste-based discrimination.

A more popular alternative, which dates back to Becker (1957), is to look at the relationship between measures of product market competition and employment or wage gaps by gender or ethnic origin. Many US studies in the 1970s and the 1980s looked at the relationship between market concentration and race or gender employment gaps using cross-sectional industry- or firm-level data and usually found that greater market concentration is associated with greater employment and wage gaps (see *e.g.* Ashenfelter and Hannan, 1986; Heywood and Peoples, 1994; and references cited therein).<sup>a</sup> A problem with these early studies is, however, that the use of market concentration as an indicator of lack of market competition have been increasingly challenged in the industrial organization literature (see for example Boone, 2008; and Aghion *et al.*, 2005). More recent studies have explored alternative measures of competition. For example, Black and Brainerd (2004) use import penetration as an indicator of competition. They look at the differential effect of the generalised increase in import penetration in the United States between 1976 and 1993 on the gender wage gap between industries with different degrees of concentration at the beginning of the period. They unambiguously find that import penetration had a greater negative impact on the gender wage gap in previously concentrated industries, suggesting that foreign competition tends to reduce gender discrimination. The identification assumption here is that the growth of import penetration is likely to have increased competitive pressure more in previously sheltered industries. Other studies used deregulation of specific industries to identify changes in competitive conditions. In particular, several papers investigated deregulation in the US road transport industry on race and gender wage and employment differentials (Peoples and Saunders, 1993; Heywood and Peoples, 1994; Schwarz-Miller and Talley, 2000), finding unambiguously that deregulation reduced gaps. Identification in these studies is, however, essentially based on the date of the federal reform. As a consequence, it is possible that their results are driven by omitted variables with distinct time profile. Black and Strahan (2001) in their study of the effect of deregulation in the US banking industry, sort this problem out by using cross-state differences in the date of deregulation. They find that, although wages generally decreased after deregulation, the adjustment affected disproportionately men. In the aftermath of deregulation, the gender wage gap fell on average by 9 percentage points and the share of women in managerial positions increased.

There are also several US studies that try to identify the role of customers' preferences in eliciting discriminatory hiring practices of employers. Most of these studies use the race structure of local neighbourhoods where firms are located to infer the race composition of customers (*e.g.* Kenney and Wissoker, 1994; Stoll *et al.*, 2000) and usually find a negative impact of the concentration of whites in a neighbourhood on employment or hirings of blacks and hispanics, although not always significant. More compelling, Holzer and Ihlanfeldt (1998) use firm data on actual customers and find that a 10 percentage point fall in the share of white customers raises the probability of hiring blacks by about 20%, even controlling for the share of black applicants, while no significant effect is found on wages. There are also many case studies of specific industries such as professional sports (see Depken and Ford, 2006, and references cited therein) and fast-foods (Ihlanfeldt and Young, 1994). Nevertheless, due to the specificity of the studied industries, it is difficult to draw general conclusions from these case studies.

There are only few studies searching for indirect evidence on discrimination in other countries. Hellerstein and Neumark (1999) find no significant discrepancies between gender gaps in wages and productivities in Israeli data. Roed and Schone (2006) find that profitability is positively related to the share of women in Norwegian establishments whose managers declare them to be exposed to fierce competition. Conversely, no such a relationship is found for non-western immigrants. Winter-Ebmer (1995) finds no association between product market concentration and the gender wage gap in Austria but a negative association of the former with the range of job opportunities offered to women. Jolliffe and Campos (2005) note that, during the transition to a market economy, the Hungarian gender wage gap was halved and this pattern was entirely due to the fall in the component of the wage gap that is not explained by observed individual characteristics. They interpret this finding as showing the effect of deregulation on discrimination, but other explanations are also possible.

a) Two recent exceptions are Coleman (2002, 2004) who find no or even the opposite relationship between market concentration and the employment or wage gap.

*Cross-country analysis show that product market deregulation reduces gender gaps in employment and wages, thereby yielding evidence of discrimination in the OECD area*

Outside the United States, country-specific studies searching for indirect evidence on discrimination are scarce (see Box 3.3). Weichselbaumer and Winter-Ebmer (2007) is the only study providing cross-country evidence on the relationship between anti-competitive regulation and the gender wage gap. They use meta-data covering over 1 500 studies of the gender wage gap in several OECD and non-OECD countries and explore the relationship between the Fraser Institute’s Economic Freedom Index, which they take as a proxy for competition, and the component of the wage gap that is not accounted by observable characteristics.<sup>20</sup> They find that competition reduces the wage gap, although results for OECD countries are not always robust.<sup>21</sup>

For the purpose of this chapter, further international evidence on the impact of product market competition on the gender employment and wage gaps is estimated by extending the methodology used by Weichselbaumer and Winter-Ebmer (2007). In particular, two separate aggregate analyses of the impact of regulatory barriers in the product market and the gender employment and wage gap are undertaken (see Box 3.4 for the methodology). OECD aggregate indicators of anti-competitive product market regulation in a few non-manufacturing industries – utilities, transports and communications – are used to proxy the overall regulatory stance of a country in a given year, consistent with previous OECD work (*e.g.* Bassanini and Duval, 2006).

#### **Box 3.4. Model specification**

The following simple linear regression model is estimated for the aggregate gender employment gap:

$$EG_{it} = \alpha PMR_{it} + X_{it} \beta + \mu_i + \lambda_t + \delta_i T + \varepsilon_{it}$$

where *EG*, *PMR*, and *X* stand for the working-age population gender employment gap, product market regulation and a vector of control variables, respectively, while  $\mu$ ,  $\lambda$  and *T* stand for country *i* fixed effects, time *t* effects and (country-specific) time trends,  $\alpha$  and  $\beta$  are parameters to be estimated and  $\varepsilon$  is a standard error term. In the analysis of ratification of international anti-discrimination conventions (see Section 3), indexes of convention ratifications are added to the equation above. Depending on the specification, control variables include the share of services in GDP, union density, employment protection legislation, the degree of corporatism, the tax wedge, the average unemployment benefit replacement rate, various indicators of family policy, the output gap, import penetration, various indicators of human capital, the gender gap in labour force participation and the aggregate employment rate. The latter two are key control variables: the former represents labour supply factors and the latter proxies the effect of aggregate labour demand. Insofar as product market regulation is likely to affect aggregate demand, the coefficient of *PMR* might capture the effect of regulatory reforms on labour demand and cannot be interpreted as yielding evidence on discrimination. To sort this problem out, the model above is also estimated in two steps. First, the employment gap is regressed on the participation gap and the aggregate employment rate plus country and time effects and country-specific trends; second, the residual from the first step is then regressed on product market regulation, other controls and country and time effects and country-specific trends. The estimated effect of regulation can then be interpreted as its effect over and above its impact on aggregate demand. Only two-step estimates are reported here, although differences from standard, single-step, OLS estimates are minor.

The same specification as above is used in the analysis of the wage gap, except for the dependent variable. The latter is the set of country-year fixed effects from the estimation of a meta-regression specification on meta-data concerning the component of the wage gap that is not accounted by observable characteristics – the so-called unexplained wage residual. Data from Weichselbaumer and Winter Ebmer (2005 – kindly provided by the authors), matched with additional estimates of the unexplained wage-gap residual obtained for the purpose of this chapter in 13 European countries using ECHP data (see Annex 3.B), are used here. Fixed-effects are obtained from a

20. By so doing, they limit the analysis to papers providing at least one estimate of the unexplained residual using regression-based decomposition (see Annex 3.B) or dummy variables in a wage regression.
21. In particular, the estimated coefficient of competition becomes insignificant and even changes sign in specifications in which country fixed effects are included when the sample is restricted to OECD countries.

specification in which the wage residual is regressed on meta-variables including: *i*) variables concerning data selection; *ii*) variables capturing econometric and decomposition methods; and *iii*) variables specifying the type of controls included in the regressions from which unexplained wage gap residuals were obtained.

The aggregate analysis of the determinants of the employment gap is supplemented with an industry-level analysis. As regulatory indicators are available for few industries only at the available level of disaggregation, following Griffith, Harrison and Simpson (2006), average profitability, defined as the ratio of output to intermediate input, labour and capital costs, is used as a proxy for product market power (and therefore of lack of competition). The estimated model can be written as:

$$EG_{ijt} = \alpha P_{ijt} + X_{ijt} \beta + \mu_{it} + \eta_j + \varepsilon_{it}$$

where  $P$  stands for average profitability of industry  $j$  in country  $i$  at time  $t$ ,  $X$  for a vector of controls defined at the country, time and industry level, while  $\mu$  and  $\eta$  captures country-by-time and industry fixed effects, the former controlling for all aggregate factors including determinants of labour market participation. To control for the overall labour demand of the industry, all specifications include the logarithm of total employment in the industry and its interaction with the average degree of coverage of collective bargaining agreements. In a number of estimates, variables capturing the industry composition of the labour force by age, education, firm size and part-time status are included. In addition, industry-by-time effects are also included to control for industry-specific trends.<sup>a</sup> The results of this industry-level analysis are presented in Annex 3.B.

More details on the methodology used to estimate aggregate and industry-level equations as well as full results are available in Annex 3.B.

a) One problem with the use of average profitability indicators is that they might be endogenous. Various strategies are used to cope with this problem including estimating the impact on industry-specific regulation data on a restricted sample and using these indicators as instruments for profitability on the same reduced sample.

Anti-competitive product market regulation appears to be positively associated with the gender employment gap (Figure 3.6),<sup>22</sup> and in particular with the portion of the gap that it is not accounted for by gender differences in labour supply and aggregate labour demand.<sup>23</sup> Such a relationship appears to hold even when controls for the sectoral structure of demand and other institutions and policies – capturing inter-alia the demand-side effect of the bargaining power of insiders, family-related tax policy and family-friendly policies –<sup>24</sup> are included in the analysis (see Annex 3.B, for full results). Overall, it appears that between 7% and 9% of the cross-country/time-series variation of the gender employment gap in OECD countries can be explained by variation in regulatory barriers.<sup>25</sup> The large liberalisation reform effort

---

22. The regression analysis is performed on data concerning 21 OECD countries between 1975 and 2003 for Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, New Zealand, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States.

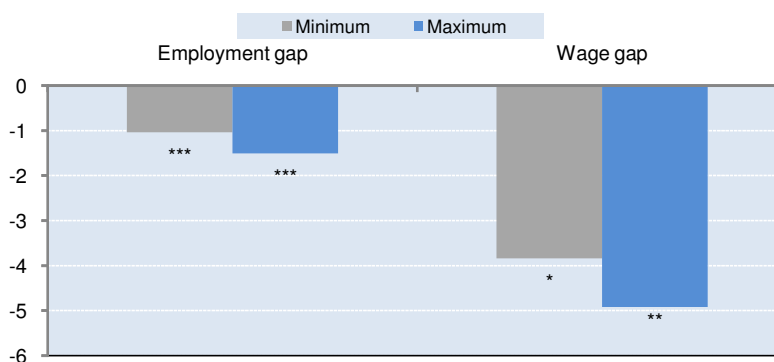
23. The aggregate employment rate is included to avoid that the estimated coefficient of regulation capture also the effect of regulatory reforms on aggregate demand, whose movements are likely to affect disproportionately disadvantaged groups such as women, thus not being interpretable as yielding evidence on discrimination. Note that this problem is unlikely to be relevant for industry-specific studies, such as those reviewed in Box 3.3.

24. As the indicator of product market regulation that is used here is based on regulation in non-manufacturing industries, one can expect that its estimated coefficient partially reflects this structural shift rather than its effect on discriminatory behaviours. For this reason, the service sector share is included in most regression models. In addition, deregulation in the product market, by reducing the size of rents, might reduce the bargaining power of insiders, thereby increasing opportunities for women who are more represented among outsiders. To control for this effect, most specifications include various labour market institutions, including trade union density, whose time path can proxy the evolution of insiders' strength (see also Annex 3.B, for more details).

undertaken by most OECD countries in the last thirty years accounts on average for about 10% of the narrowing of the employment gap. This figure can be considered a lower bound estimate of the share of the contribution of the reduction in the extent of discrimination to the narrowing of the employment gap, provided that other sources of discrimination (*e.g.* consumer-based or statistical discrimination) do not induce reverse discrimination against men, which seems rather unlikely. Moreover, the average OECD country can still gain significantly from further deregulation. Taking estimates at face value, if all countries liberalised their product markets to the level of the United Kingdom, the most deregulated country in 2003, the OECD average of gender employment gaps would fall by 1 to 1.5 percentage points from its 2003 level.

**Figure 3.6. Pro-competitive regulatory reforms in the product market lower the gender employment and wage gaps**

Estimated percentage-point effect of a 1.2 point fall in the anti-competitive regulation index, working-age population, 1975-2003



*Interpretation:* The chart shows that a 1.2 point fall in the index of anti-competitive product market regulation (corresponding to the difference between the OECD average and the least regulated country in 2003) would narrow the employment gap by between 0.8 and 1.3 percentage points and the wage gap by between 3.8 and 4.9 percentage points.

*Note:* The chart presents minimum and maximum point estimates obtained from the different specifications. For the wage gap, the sample is 1975-2001, and reported estimates are based on a sample that excludes three outliers.

\*, \*\*, \*\*\*: statistically significant at the 10%, 5%, 1% level, respectively.

*Source:* OECD estimates (see Annex 3.B, for detailed results).

As discussed above, it is important to check that, within the same period of analysis, deregulation did not have the opposite effect on employment and wages. In fact, if that were true, one could argue that liberalisation reforms simply shifted the equilibrium in the labour market without changing relative demand conditions across gender, which would be inconsistent with a relationship between competition and discrimination. A meta-analysis of the wage gap on a comparable sample of countries and years,<sup>26</sup>

25. These figures are obtained by looking at the range of variation of the gender employment gap predicted by the range of variation of the indicator of regulation. Not surprisingly, the estimate is relatively small as compared with about 85%-90% of such range explained by the gender gap in labour participation and the aggregate employment rate.

26. The meta-analysis is performed on a strongly unbalanced sample concerning 20 OECD countries between 1975 and 2001 (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, the Netherlands, Norway, New Zealand, Portugal, Spain, Sweden, Switzerland, the



however, suggests that the stringency of product market regulation does have a positive and significant effect on the gender wage gap (Figure 3.6), although point estimates should be interpreted with caution due to the limited sample size, which results in imprecise estimates (see Annex 3.B).<sup>27</sup> It appears that regulatory barriers to competition explain between 20% and 40% of the cross-country/time-series variation in the gender wage gap (and between 35% and 70% of the variation in the component that is not explained by easily observable characteristics). Taking the most reliable estimates – where main outliers have been excluded – at face value, one can conclude that if all countries deregulated their product markets to the level of the United Kingdom, the OECD average of the gender wage gap would fall by 4 to 5 percentage points.

The relationship between product market competition and labour market gaps that emerges in aggregate OECD data appears to be confirmed in industry-level data for 13 European countries.<sup>28</sup> Restricting the sample to countries and years where comparable indicators of sector-specific regulation can be defined for a sufficiently large number of industries (see Box 3.4 and Annex 3.B), it appears that deregulation in typically regulated industries – such as utilities, transport and communications – has been beneficial to women’s employment. In fact, taking the estimates at face value, about two thirds of the fall in the employment gap in these industries can be attributed to deregulation.<sup>29</sup> Moreover, with respect to their male counterparts, female employees appear to be scarcer in industries and countries where an indicator of profitability – the ratio of output to intermediate input, labour and capital costs, used as a rough proxy of market power and therefore of lack of competition – is higher. Profitability appears to explain between 3.8% and 6.4% of the variation of the employment gap across industries and countries as well as over time.<sup>30</sup>

Overall, available direct and indirect evidence suggests that discrimination has been playing an important role in shaping labour market gender and ethnic disparities in OECD countries in the past thirty years. Moreover, this evidence shows that pro-competitive deregulation in the product market is likely to dampen discrimination and that all OECD countries can reduce discrimination further by enhancing their reform effort in this field.

---

United Kingdom, the United States). To increase sample size, the EPL indicator has been set at its 1982 values for years preceding that date.

27. The sample contains a maximum of 188 country-by-year observations.
28. The largest sample covers 16 industries in Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain and Sweden from 1992 to 2002. The sample is limited by availability of industry-level gender gaps and profitability indicators.
29. If one looks at the range of variation of employment gaps that is explained by regulatory indicators, a much smaller figure is found : only 4% of the variation across industries, countries and over time is explained by regulatory indicators (9% if the comparison is limited to utilities, transport and communications where indicators vary across countries and over time). This is not surprising since the range of variation of employment gaps in the sample is much greater than the corresponding variation in aggregate data, due mainly to large cross-industry differences in the share of women in employment. Given these differences, it can be argued that gender differences in the logarithm of employment are a more appropriate dependent variable. A sensitivity analysis, however, shows that results are not affected by changing the dependent variable.
30. This result is confirmed by instrumental variable estimates where regulatory indicators are used as an instrument for profitability.

*Deregulation alone might not suffice, therefore specific anti-discrimination legislation is necessary*

These findings do not imply, however, that market deregulation can eliminate labour market discrimination by gender or ethnic origin. First, while certain types of discrimination are affected by product market competition, others are not and will remain in place.<sup>31</sup> Second, imperfections in other markets, notably the labour market, are likely to make taste-based discrimination persist (see Box 3.1 above). Third, while pro-competitive regulatory reforms can improve competitive conditions in a market, this does not imply that all inefficient firms will be eliminated from the market, as simple textbook economics would imply. In real-world markets, the most efficient firms gain market shares when the degree of competition increases, but they rarely take the whole market (see *e.g.* Boone, 2008). In fact, in European countries in the post-SMP period, the relationship between profitability and the gender employment gap was no weaker in manufacturing than in non-manufacturing industries (see Annex 3.B), even though the degree of stringency of regulation and its change was unambiguously smaller in the former. Thus, specific anti-discrimination legislation may have an important role to play.

### **3. Anti-discrimination laws across OECD countries**

All OECD countries have integrated anti-discrimination provisions into their legal framework. But in many cases, legal measures aimed at protecting individuals against discrimination in the labour market have proved to be particularly difficult to enforce. Consequently, most governments have implemented comprehensive strategies intended to raise public awareness of discrimination, but also public awareness of the laws prohibiting discrimination and individual's rights as a victim of discrimination. Currently, in a number of countries, legal instruments are supplemented by an institutional framework that seeks to establish more effective enforcement mechanisms (see Annex Table 3.A2.1).

#### **3.1. Raising public awareness**

Legal rules are not self-enforcing. In all OECD countries, enforcement of anti-discrimination laws depends mainly on the action of individuals who feel discriminated against. They are the actors mobilising the law (Havinga, 2002; Niessen, 2003).

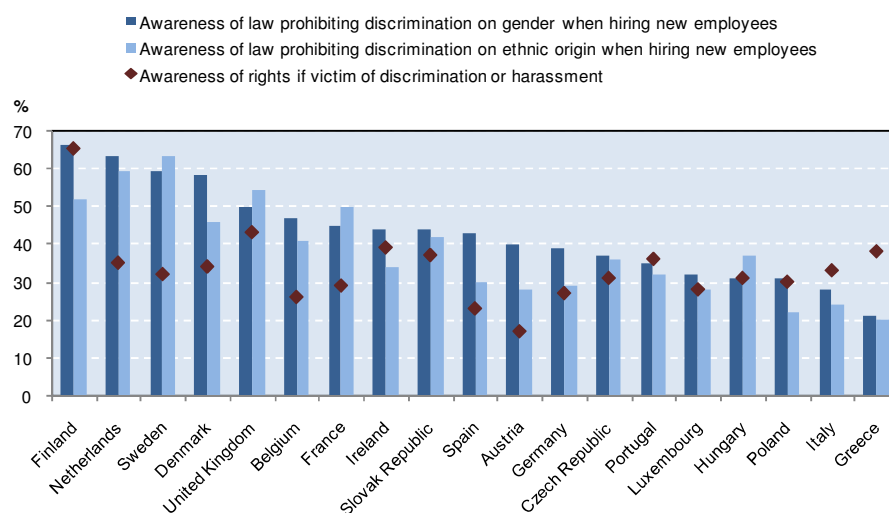
*Lack of public awareness may impair on the enforcement of legal rules in a number of countries...*

At the very least, workers should know that they have a legal right to equal treatment, so as to enforce their rights. Running campaigns to inform individuals of their legal rights is thus crucial, and this is indeed part of the actual workload of national equality bodies, in all countries where such bodies exist (Table 3.2). But the evidence suggests that public opinion is often ill-informed about such rights. With the notable exceptions of Finland, the Netherlands, Sweden, Denmark and the United Kingdom, less than half of the population of European countries where such information is available knows that discriminating on the basis of gender or ethnic origin when hiring new employees is unlawful (Figure 3.7). In addition, public awareness of anti-discrimination provisions concerning ethnic origins tends to be less than for gender. This may, however, simply reflect the fact that the former targets fewer people than the latter. Public knowledge about general rights of discriminated persons is even more limited: on average, only one third of European Union citizens claim to know their rights should they be a victim of discrimination (European Commission, 2007b).

---

31. It is even possible that statistical discrimination could increase as a result of deregulation, as firms might react to enhanced competition by increasing selection and screening behaviours when hiring (see Autor, 2001). However, greater competition is perhaps more likely to increase the value of information gathering and therefore decrease statistical discrimination.

**Figure 3.7. Public awareness about legal anti-discrimination provisions**



*Note:* The bars correspond to the percentage share of persons answering "Yes" to the question (QA12) "Please tell me whether, in your opinion, in your country there is a law which prohibits the following types of discrimination when hiring new employees" for the cases of discrimination on the basis of gender or ethnic origin, respectively. The symbol corresponds to the share of persons answering "Yes" to the question (QA14) "Do you know your rights if you are the victim of discrimination or harassment?".

*Source:* European Commission (2007b).

It is also crucial that employers are well-informed about the legal rules and they should be provided with tailored and targeted support to help them improve their performance on equality. Most national equality bodies issue codes of good practices or other guidance documents for employers (Table 3.2). However, this is done in a less systematic way and often with a lower priority than information campaigns targeted at potential victims of discrimination. In Greece (as regards ethnic minorities), Italy, Poland and Portugal, national equality bodies do not provide employers with codes of good practices.

Still, effective enforcement of legal rules largely relies upon employers' knowledge and understanding of the legal framework. And there are some indications that also in this area margins of progress may be substantial. For instance, based on a telephone survey, Havinga (2002) suggests that in many cases, the Dutch equal treatment legislation did not give rise to a re-assessment of equal treatment in personnel management: only one-third of the organisations surveyed reported that management had discussed the matter, notably the proportion of men and women or the position of ethnic minorities. In fact, the survey shows that while most personnel managers know that equal treatment laws exist in the Netherlands, their knowledge about the actual content of the legislation is rather limited. Awareness of legal provisions is particularly limited in small firms, which consequently tend to pay little attention to unequal treatment and adaptation of internal procedures as a result of the legislation.

According to the British Arbitration, Conciliatory and Advisory Service (ACAS), the situation in the United Kingdom appears to be quite similar. Based on its practical experience of equality and diversity in the workplace, ACAS indeed notes that, to date, the understanding of diversity and the implementation of ethnic and gender mainstreaming remains the domain of larger organisations with a department of Human Resources (ACAS, 2006a). Small and medium-sized firms are statistically less likely to deal with a tribunal claim for discrimination than larger organisations and, therefore, less likely to develop any detailed expertise of the issue. And even in large firms, personnel specialists also struggle with the influx of new legislation. The legal framework is seen by many as overly-complicated and difficult to navigate. In this

respect, Phillips *et al.* (2007) underline that the the legal framework in the United Kingdom has developed in a piecemeal and fragmented way, with provisions in many different Acts and Regulations. This contributes to make it confusing for employers (and individuals), and a starting point for creating a better framework for achieving equality could be simpler law, namely a single Equality Act. Likewise, Malheiros (2007) stresses that in Portugal, the multitude of laws and Decree-laws makes it hard for people who are affected by discrimination and even for lawyers and judges to understand which norm actually applies to the case in hand. In fact, this is an area where most countries could usefully take action (see Table 3.2). This could be of particular relevance for countries such as the Czech Republic, Denmark, Finland, Greece, Mexico, Poland, Portugal and Spain, where the institutional framework surrounding the legal rules is rather complex – promotion and enforcement responsibilities being split between several bodies – or not yet operational (as in Spain and the Czech Republic), and thus not in a good position to be able to provide employers (and/or workers) with a clear and synthetic picture of the overall legal framework.

**Table 3.2. Public awareness of discrimination issues and public access to the anti-discrimination framework<sup>a</sup>**

	Measures aimed at raising public awareness, conducted by equal treatment bodies or other specialised bodies <sup>b</sup>				Public access to the anti-discrimination framework	
	Publication of statistics on discrimination	Information campaigns to change public opinion	Publication of codes of good practice for employers	Information campaigns to inform the public of their legal rights	Complexity of the legal framework <sup>c</sup>	Complexity of the institutional framework <sup>d</sup>
<b>Australia (FL)</b>	Yes (high)	Yes (medium)	Yes (medium)	Yes (high)	Medium	Low
<b>Austria (FL)</b>	Yes (low)	Yes (high)	Yes (also done by trade unions)	Yes (high)	Low	Medium
<b>Belgium (FL)</b>	Yes (gender: high) (ethnicity: medium)	Yes (gender: medium) (ethnicity: high)	Yes (gender: low) (ethnicity: medium)	Yes (gender: medium) (ethnicity: high)	Medium	Low
<b>Canada (FL)</b>	Yes (high)	Yes (low)	Yes (medium)	Yes (medium)	Low	Low
<b>Czech Republic</b>	No	No	No	No	High	No EB
<b>Denmark</b>	Yes	Yes	Yes	Yes	High	High
<b>Finland</b>	Yes (gender: low) (ethnicity: medium)	Yes (low)	Yes (gender: high) (ethnicity: low)	Yes (low)	High	High
<b>France</b>	Yes (medium)	Yes (high)	Yes (medium)	Yes (high)	High	Low
<b>Germany</b>	Yes (low)	Yes (medium)	Yes (high)	Yes (high)	Low	Low
<b>Greece</b>	Gender: yes (medium) Ethnicity: no	Yes (gender: high) (ethnicity: medium)	Gender: yes Ethnicity: no	Yes (gender: high) (ethnicity: medium)	Medium	High
<b>Italy</b>	No	Yes (high)	No	Yes (high)	Medium	Low
<b>Japan<sup>e</sup></b> (gender only)	Yes (high)	Yes (high)	Yes (high)	Yes (high)	Medium	Low
<b>Korea<sup>e</sup></b>	Yes	Yes	Yes	Yes	Medium/high	Medium
<b>Mexico</b>	Yes (high)	Yes (high)	Yes (high)	Yes (high)	High	High
<b>Netherlands<sup>e</sup></b>	Yes (medium)	Not explicitly (low)	Not explicitly (medium)	Not explicitly (low)	Low	Low
<b>Norway</b>	Yes	Yes	Yes	Yes	Medium	Low
<b>Poland</b>	Yes (low)	Yes (gender: high) (ethnicity: low)	No	Yes (gender: high) (ethnicity: low)	Medium/high	High
<b>Portugal</b>	Yes	Yes	No	Yes	High	Medium/high
<b>Spain<sup>e</sup></b> (gender only)	No	No	No	No	High	EB not yet operational
<b>Sweden</b>	Yes (low)	Yes (low)	Yes (medium)	Yes (high)	Medium	Low
<b>Switzerland<sup>e</sup></b> (gender only)	Yes (high)	Yes (medium)	Yes (high)	Yes (medium)	Low	Medium
<b>United Kingdom</b>	Yes	Yes	Yes	Yes	Medium	Medium
<b>United States (FL)</b>	Yes (medium)	No	Publication of guidance documents	Yes (high)	Low	Low

FL: information reported in the above table refers to Federal Laws; EB: equality body.

a) Whenever no distinction is made between gender and ethnic grounds, answers cover both.

b) Annotations in parentheses refer to the level of priority attributed by the body in charge of implementing the specified task. High, medium and low, respectively, mean above, close to and below-average importance of the specified task in the actual overall workload of the corresponding body.

c) High, medium and low, respectively, refer to a situation where the core legal framework to ban discrimination in the labour market is built: on both specific legislation and general laws or codes (be they labour, civil or penal codes, employment acts or constitutional laws); on a combination of anti-discrimination laws covering specific areas (e.g. equal pay, working condition, etc.) or grounds (gender, ethnicity); on a single, comprehensive anti-discrimination law (covering all grounds).

d) Low, medium and high, respectively, refer to a situation where the responsibilities attached to the promotion and enforcement of anti-discrimination policies are held by: a single body, two bodies and more than two bodies.

e) Country notes:

*Japan*: there is no specific anti-discrimination legislation covering racial/ethnic minorities. For this reason, discrimination on ethnic or racial grounds is not covered in the analysis conducted for the purpose of this chapter, although some legal provisions exist that in principle allow workers to bring a discrimination case before the courts.

*Korea*: complexity of the institutional framework: While there is a single equality body, the latter is not really specialised in discrimination issues. Rather, the National Human Rights Commission aims at securing human rights in general, which tends to make its role on discrimination cases per se less visible (at least compared to a situation where there is a unique equality body dealing with discrimination cases only).

*Netherlands*: equal Treatment bodies have no explicit role on information campaigns, publication of statistics or code of good practices for employers, but the government does have these goals and tries to reach them actively.

*Spain*: there is no specific anti-discrimination legislation covering racial/ethnic minorities. For this reason, discrimination on ethnic or racial grounds is not covered in the analysis conducted for the purpose of this chapter, although some legal provisions exist that in principle allow workers to bring a discrimination case before the courts.

*Switzerland*: there is no specific anti-discrimination legislation covering racial/ethnic minorities. For this reason, discrimination on ethnic or racial grounds is not covered in the analysis conducted for the purpose of this chapter, although some legal provisions exist that in principle allow workers to bring a discrimination case before the courts. Moreover, the Federal Commission against Racism and the Service for Combating Racism may offer guidance and counselling to victims of discrimination. More specific equality bodies can be found in a small number of cantons.

*Source*: See OECD (2008c).

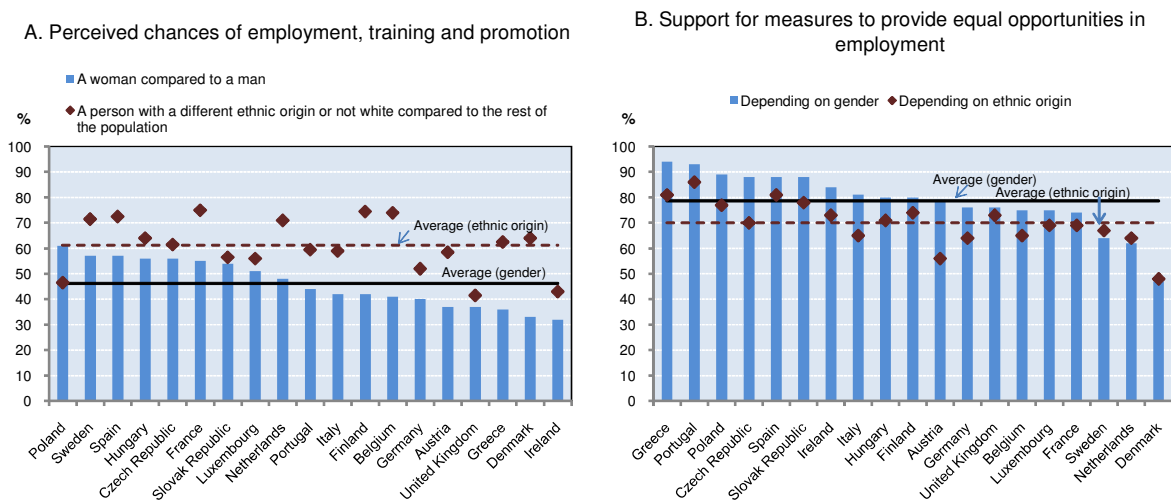
*... although the social acceptance of the principle of equal treatment seems well established*

The general effects of the legislation may be indirect and even a vague knowledge of legal rules may help change people's behaviour and contribute to the social acceptance of the principle of equal treatment and the idea that discrimination should not be allowed (Havinga, 2002; Phillips *et al.*, 2007). Likewise, discrimination cases and their court outcomes, even if there are very few, might be an important vehicle of cultural change, if they are well enough publicised.

In most countries, national equality bodies disseminate information and statistics that help raise public awareness of discrimination, in general, and of its concrete manifestation in the workplace, and run information campaigns to change public opinion (Table 3.2). In addition, as noted by Phillips *et al.*, (2007), supplying data on the composition of the local population (*i.e.* ethnicity, gender, age, qualifications and skills, employment by group, etc.) may give employers the means of asking and answering questions about their own performance. But in this respect, most European countries are confronted by a paradox as regards statistics related to ethnic minorities. On the one hand, collecting and using data considered sensitive, such as concerning racial or ethnic origins, are subject to particular restrictions, in part because the use of such data could entail the risk of discriminatory practices (see also OECD, 2007c). On the other hand, this prevents a comprehensive assessment of the situation, which in turn is likely to impair the effectiveness of equality policies, as the progress made and the actions remaining to be taken cannot be clearly identified by the relevant authorities, citizens and individual employers.

Overall, the idea that unequal treatment may arise at the workplace is relatively widespread among the population and there is strong public support for corrective measures (Figure 3.8). On average over the 19 European countries where such information is available, almost half of the population states that a woman would be less likely than a man, with equivalent qualifications or diplomas, to get a job, be accepted for training or be promoted. When it comes to ethnic minorities, this proportion rises to 60%. And in both cases, the adoption of specific measures to provide equal opportunities in the field of employment is supported by a large majority of public opinion (except in Denmark). While discrimination against ethnic minorities is seen as being more prevalent than unequal treatment on the basis of gender (in all countries except in Finland), public support for corrective measures on the basis of ethnic origin is significantly lower – by 10 percentage points on average – than for policies to address gender disparities. This might reflect some failure in communication actions, as underlined above, and/or the difference in size between the two targeted populations. It can also explain why legislation is sometimes more favourable to the rights of victims in the case of discrimination on the ground of gender than on the ground of ethnic origin (see below).

**Figure 3.8. Public awareness about discrimination in the workplace and support for equality policies in selected European countries**



a) Share of persons answering "Less likely" to the question (Q7) "Would you say that, with equivalent qualifications or diplomas, the following people would be less likely, as likely or more likely than others to get a job, be accepted for training or be promoted". For "woman compared to man" and for "persons of different ethnic origin or not white compared to the rest of the population", respectively, 5% and 3% of respondents answered "More likely".

b) Share of persons answering "In favour" to the question (Q9) "Would you be in favour of, or opposed to, specific measures being adopted to provide equal opportunities for everyone in the field of employment?" Specific measures for people depending on "gender" and "ethnic origin", respectively.

Source: European Commission (2007b).

### 3.2. Worker incentives to bring a case before courts

For legal rules to be effective, individuals should take action to enforce their rights. To encourage this, both the legal and institutional framework should provide them with the right incentives. At the very least, it should be possible for victims of discrimination to obtain redress and compensatory damages from the courts.

*Bringing a discrimination case before the courts is a costly process...*

In this respect, the burden of proof required to support a discrimination claim before the courts is of central importance. The issue is not straightforward: on the one hand, if the obstacles to bringing evidence are so great that an action before courts is doomed to failure, individual legal rights are not really enforceable in practice; on the other hand, it should not be possible to bring a case before courts merely on the basis of gender or ethnic origin each time a treatment is felt to be unfair, otherwise the overall framework would be unsustainable.

Following the European directives passed in the early 2000s, virtually all European countries have lowered the burden of proof for the plaintiff in discrimination cases – the so-called "shift burden of proof" (Table 3.3). Basically, the plaintiff has to provide proofs of differential treatment, and prima facie evidence of the link between the latter and the protected ground (e.g. gender or ethnic origin). In other words, the plaintiff is not required to prove discriminatory intents or practices per se, but has to present facts from which a connection between the differential treatment and the protected ground can be directly or indirectly presumed. In this way, the burden of proof is shifted to the employer, who has to prove that the

differential treatment was disconnected from any discriminatory intents or practices. There are strong rationales for this adjustment of the burden of proof. Indeed, proving that the motivation underlying a difference in treatment is not discriminatory, but entirely caused by legitimate factors, should be relatively straightforward for the employer, while being extremely difficult for a complainant (Freedman, 2002). The evidence necessary for proving motivation is likely to be in the possession of the respondent rather than the complainant, and therefore a court might reasonably expect full and cogent explanations about why a particular person is, or is not appointed or promoted, disciplined or dismissed, etc. These are all matters which are firmly within the knowledge and control of the employer organisation and the managers and staff who took the particular decisions (Rayner, 2007). However, in the absence of further legal guidance or intuitional support, even prima facie evidence may be difficult to gather for a complainant (see Box 3.5).



### **Box 3.5. More legal guidance or support in gathering evidence of discrimination would be useful**

In most countries, there is no clear legal guidance on what could constitute an element of proof or *prima facie* evidence of discrimination, and no clear legal support on how to gather such evidence (see OECD, 2008c). In this respect, the British questionnaire procedure is an interesting exception. A complainant can under the British anti-discrimination legislation ask an alleged discriminator for answers to specific questions set out in a questionnaire format. First, information received from the employer in response to the questionnaire can aid a decision whether or not to bring the case before the Employment Tribunal (ET). Second, in the event of an ET proceeding, the information, statistics and documents gathered from the questionnaire procedure can be used as evidence and may influence the ET's final decision. If it appears to a tribunal that the respondent deliberately and without reasonable excuse omitted to reply to the questionnaire or that the reply is evasive or equivocal, the ET can draw adverse inferences from that reluctance to co-operate. This key principle is clearly set out in the anti-discrimination legislation itself. The effective use of questionnaire procedures plays an important part in many discrimination claims. This is a method to apply pressure to the respondent due to the rules about responding correctly to the request and may lead to an early settlement (Lewis, 2008).

Situational tests and statistical evidence are other instruments that can be used to establish proofs or at least *prima facie* evidence of discrimination before the courts. While strongly advocated by experts in the anti-discrimination field (see for instance, Niessen, 2003), their effective use is still rather limited in a number of countries. Situational tests (see Box 3.2) may be especially useful in case of discriminatory hiring practices, where most often, the absence of clearly identified comparators makes it particularly difficult to gather evidence of discrimination. In most countries, situational tests are admissible before the courts, or at least not prohibited or restricted by law, but rarely used in practice (see OECD, 2008c). In fact, the evaluation of the admissibility of situational tests may be difficult due to the risks of abuse or manipulation which they may give rise to, and would require some legal guidance that at present does not really exist. For instance, the relevance of any situational test depends crucially on the exact comparability of the potentially discriminated workers and their comparators, in terms of both curriculum vitae and behavioural attitudes during the test. Thus, to have a legal value, situational tests would need to be closely monitored by legal authorities or other relevant bodies (De Schutter, 2003). Likewise, statistical evidence may be crucial for proving or establishing facts from which indirect discrimination can be inferred. Indirect discrimination indeed refers to a situation where the use of an apparently neutral provision, criterion or practice (which cannot be objectively justified by a legitimate aim) puts some individuals, on the basis of their sex or ethnic origin, at a particular disadvantage compared with other persons. Complainants thus need to establish the adverse impact of the above-mentioned provision, criterion or practice on a *group*, and statistical evidence may be particularly relevant in that case. But when it comes to racial or ethnic discrimination, the use of this kind of evidence is rather restricted in most European countries, by legal rules themselves. As a result, with the notable exceptions of Denmark, the Netherlands, Sweden and the United Kingdom, there are no national data concerning racial or ethnic origins of the population.

**Table 3.3. Worker incentives to bring a case before courts<sup>a</sup>**

	Elements of proof to be provided by the plaintiff <sup>b</sup>	Institutional (free) support provided to the plaintiff			Redress and compensation		Protection against victimisation <sup>e</sup>	
		Legal guidance and counselling <sup>c</sup>	Investigation <sup>d</sup>	Legal representation <sup>c</sup>	Reinstatement/redress with back pay	Additional monetary compensation	Plaintiff	Witnesses
<b>Australia</b> (FL)	Proof	EB, U, NGO	EB	U, NGO	Case-by-case basis	Yes, no clear legal guidance. In recent case law, more than AUD 10 000.	Yes	Yes
<b>Austria</b> <sup>f</sup> (FL)	Strong presumption	EB, U, NGO	EB	NGO	Yes, without alternative option	Small minimum amounts set by law, no cap	Yes	Yes
<b>Belgium</b> (FL)	Presumption	EB, U, NGO	Gender: no Ethnicity: EB	EB, U, NGO	Yes	Max 3 to 6 month's salary	Yes	Yes
<b>Canada</b> (FL)	Proof	EB, U, NGO	EB	U, NGO	Case-by-case basis	Max CAD 20 000 (plus CAD 20 000 in some cases)	Limited	Limited
<b>Czech Republic</b>	Strong presumption	U, NGO	Labour inspectorate	U, NGO	Yes	Yes, no clear legal guidance.	Limited	No
<b>Denmark</b> <sup>f</sup>	Gender: presumption Ethnicity: strong presumption	EB, U	EB	Gender: EB, U Ethnicity: U	Gender: Yes Ethnicity: No	Yes, usually between DKK 10 000 and DKK 100 000	Limited	Limited
<b>Finland</b> <sup>f</sup>	Presumption	EB, U, NGO	Gender: EB Ethnicity: Labour inspectorate	U, NGO	No	Gender: min EUR 3 000, mainly no cap Ethnicity: max EUR 15 000	Gender: yes Ethnicity: limited	Gender: yes Ethnicity: limited
<b>France</b>	Presumption	EB, U, NGO	None	U, NGO	Yes	Yes, no clear legal guidance	Limited	Limited
<b>Germany</b> <sup>f</sup>	Presumption	EB, U, NGO	None	U, NGO	Yes	Yes, limited legal guidance	Yes	Yes
<b>Greece</b>	Presumption	EB, U, NGO	Labour inspectorate	U, NGO	Yes	Yes, no clear legal guidance	Yes	Yes
<b>Italy</b> <sup>f</sup>	Gender: strong presumption Ethnicity: proof	EB, U, NGO	Gender: No Ethnicity: EB	Gender: EB Ethnicity: none	Yes, when possible	Yes, no clear guidance	Gender: no Ethnicity: limited	No
<b>Japan</b> <sup>f</sup> (gender only)	Proof	EB	EB	None	Case-by-case basis	Yes, no clear legal guidance	Yes	No
<b>Korea</b> <sup>f</sup>	Gender: presumption Ethnicity: proof	EB, U, NGO	EB	U, NGO	Yes	Not in all cases, no clear legal guidance	Gender: yes Ethnicity: limited	
<b>Mexico</b> <sup>f</sup>	Strong presumption	Public Labour Defender, EB, U, NGO	Labour inspectorate, EB	Public Labour Defender, EB, U, NGO	Yes	None	Limited	Limited
<b>Netherlands</b> <sup>f</sup>	Presumption	EB, U, NGO	EB	U, NGO	Yes	Not in all cases, no clear legal guidance	Limited	Limited
<b>Norway</b>	Presumption	EB, U, NGO	EB	U, NGO	Case-by-case basis	Yes, no clear legal guidance	Yes	Yes
<b>Poland</b>	Presumption	EB, U, NGO	Labour inspectorate	U, NGO	Yes	Yes, at least monthly minimum wage	Limited	Limited

<b>Portugal</b>	Presumption	U, NGO	Labour inspectorate, mainly	U, NGO	Yes	Yes, no clear legal guidance	Yes	Yes
<b>Spain<sup>1</sup></b> (gender only)	Strong presumption	U, NGO	Labour inspectorate	U, NGO	Yes, without alternative option	Yes, no clear legal guidance	Yes	No
<b>Sweden</b>	Presumption	EB, U, NGO	EB	EB, U, NGO	Yes	6 to 32 month's salary in lieu of reinstatement €6,000 (average) for psychological injury	Yes	Yes
<b>Switzerland</b> (gender only)	Presumption	EB, U, NGO	EB (with limited powers)	U, NGO	In some cases	Max 3 to 6 month's salary in lieu of reinstatement	Limited	Limited
<b>United Kingdom</b>	Presumption	EB, U, NGO	Provision of "legal" instruments (e.g. questionnaires)	EB (rarely), U, NGO	Case-by-case basis	In 2005/06 (ET), Gender: average of GBP 10 807 (median: GBP 5 546) Ethnicity: average of GBP 30 361 (median: GBP 6 640)	Yes	Yes
<b>United States</b> (FL)	Proof	EB, U, NGO	EB	EB, U, NGO	Case-by-case basis	USD 50 000 max to USD 300 000 max, depending on firm size	Yes	Yes

FL: information reported in the above table refers to Federal Laws.

a) Whenever no distinction is made between gender and ethnic grounds, answers cover both.

b) (Strong) presumption of discrimination and proof of discrimination, respectively, refer to a situation where the employee has to introduce his/her claim before court by presenting: facts establishing disparate treatment and from which a (strong) presumption of discrimination can be inferred; and facts that prove discrimination.

c) EB, U and NGO, respectively, mean that legal assistance and counselling and/or legal representation can be provided by: the equality body, unions and any non-governmental associations or public interest bodies that advocate for the elimination of discrimination.

d) Investigation procedures conducted by equality (or other relevant) bodies in order to gather prima facie evidence or proof of discrimination.

e) "Limited" protection against victimisation/retaliation refers to: cases where the claimant employee, or any employees providing evidence or participating as a witness in a proceeding against discrimination, are protected against wrongful discharge only; or cases where the standard of proof as regards victimisation is more demanding than for "simple" discrimination.

f) Country notes:

*Austria:* elements of proof to be provided by the plaintiff: The amended Equal Treatment Act lowers the burden of proof for the plaintiff without completely switching it over to the respondent, when the plaintiff established facts from which it may be presumed that there has been direct or indirect discrimination. The law states that the respondent has to prove that "it is more likely that a different motive – documented by facts established by the respondent – was the crucial factor in the case or that there has been a legal ground of justification". Additional monetary compensation: minimum of 1 month salary if the job applicant would have been awarded the position, had the selection not be discriminatory; income differential for at least 3 months if the employee would have been promoted, had the selection not be discriminatory. There is an amendment to the law in the parliament which intends higher compensation.

*Denmark:* elements of proof to be provided by the plaintiff: Although anti-discrimination laws appear to provide for a shift of the burden of the proof in the case of facts from which discrimination can be presumed, case law on ethnic discrimination cases shows that written statements from the respondent might not suffice to shift it in practice.

*Finland:* additional monetary compensation – gender: in cases concerning employee recruitment the maximum compensation is €15,000.

*Germany:* legal representation: Unions and NGOs can legally represent a plaintiff only in proceedings where the law does not explicitly require a professional lawyer. NGOs are subject to certain requirements.

*Italy:* elements of proof to be provided by the plaintiff: For gender: the legislation refers to well-founded evidence to shift the burden of the proof. In the case of ethnicity, standard rules for civil disputes apply. Legal representation: Ethnicity: according to the Immigration

Law, discrimination cases do not require that the plaintiff is assisted by a professional lawyer. Victimization: It is mentioned in the law only as regards ethnicity and only as an aggravating element when evaluating damages.

*Japan*: institutional (free) support provided to the plaintiff: the EB is not directly engaged in discrimination cases brought by workers.

*Korea*: monetary compensation: as regards gender, the anti-discrimination law does not explicitly provide for remedies such as reinstatement or monetary compensation, but the Labour Standards Act provides for them. And there are many judicial practices and court rulings regarding dismissals; as regards ethnicity, no clear legal guidance in the anti-discrimination legislation, and there are no anti-discrimination provision in the Labour Standards Act protecting racial or ethnic minorities.

*Mexico*: legal assistance and representation: As part of the general framework for labour dispute resolution, all workers have the right to receive free legal assistance from the Federal Public Labour Defender's Office, when needing help to resolve labour disputes, including disputes caused by on-the-job discrimination based on ethnic or national origin, sex, social status, health, religion, political opinions or affiliation, sexual preference, or marital status.

*Netherlands*: monetary compensation: The equal treatment legislation hardly mentions any sanctions and remedies, except in case of discriminatory dismissal. Thus, victims have to know which sanctions normal civil law and administrative law contains.

*Spain*: elements of proof to be provided by the plaintiff: The legislation refers to well-founded evidence. The Constitutional Court has been establishing case law on the burden of proof. In order to use the rule of distribution for the burden of proof, it is necessary that the actor accredit "the existence of an indication that generates a reasonable suspicion, appearance or presumption in favour of similar affirmation; it is necessary on the part of the actor to contribute "realistic proof" (STC 207/2001); and in another judgment (STC 308/2000) it indicates the "requirement for a principle of proof revealing the existence of a general discriminatory panorama or of facts that the vehement suspicion appears of discrimination ...".

*Source*: See OECD (2008c).

National equality bodies also play a key role in lowering the threshold of a discrimination case (Niessen and Cormack, 2004). In virtually all countries, plaintiffs may receive free legal guidance and counselling from either national equality bodies, NGOs, trade unions (usually provided to members only) or other relevant bodies (Table 3.3). In most countries, national equality bodies are empowered to investigate discrimination claims and have the legal authority to compel people (and in particular, the employer) to provide all of information it requires to investigate the claim. In this respect, they play a very specific role compared with NGOs and trade unions that usually do not have this investigative power. Investigation procedures are likely to be decisive in providing proofs or evidence that will enable a *prima facie* case for discrimination to be constructed. However, whether this investigative power is effectively binding for employers and potential witnesses remains unclear in practice (see OECD, 2008c). For instance, the extent to which an employer's failure to provide the requested information can be used to draw inferences on discrimination if the case is brought before the courts is rather unclear in many countries, and only few countries report that noncompliance is sanctioned with fines (namely, Australia, Canada, Korea and Norway). Strikingly, in virtually all countries where the burden of proof entirely rests on the plaintiff, equality bodies tend to be empowered with a relatively strong investigative power: in Australia and Canada, anti-discrimination laws clearly specify fines for failure to comply with requests for information or document (in Australia, prison sentences for providing false or misleading information are also provided for), and in the United States, the federal equality body has a *subpoena* power to compel enforcement of a request for information. Thus, establishing a discrimination case before courts may not be more difficult in these countries than in countries with less stringent systems of proof, but where the equality body has more limited investigative powers (O' Hare, 2001).

In the Czech Republic, Finland (as regards racial discrimination cases), Mexico, Poland, Portugal and Spain, investigative procedures are mainly conducted by labour inspectorates, which also have strong powers. This, however, means that there is no one-stop shop where claimants can access information, lodge a complaint, and receive support for gathering the requested evidence to enable a discrimination case to be brought before the courts. Thus, for the overall framework to be effective, labour inspectorates and equality bodies (or other relevant bodies) need to be well coordinated and to operate in close collaboration. In practice, this may be not always the case. For instance, Malheiros (2007) suggests that in Portugal, the main practical difficulties in enforcing legislation relate to the lack of coordination between the different bodies involved in discrimination cases. Obtaining evidence on discriminatory acts is quite difficult and the

procedures tend to be very protracted, thus creating a gap between legislation and its practical implementation, with very few cases brought before the courts.

Equality bodies are generally not empowered to provide plaintiffs with legal representation (Table 3.3). And in countries where they have such a power (Mexico, Sweden, the United Kingdom and the United States as well as, as regards gender discrimination cases only, Belgium, Denmark and Italy), legal representation is not provided in a systematic way. In the United Kingdom for instance, the Equality and Human Rights Commission will take legal action, on behalf of individuals, where there are strategic opportunities to push the boundaries of the law, that is where there are chances to create legal precedents or to clarify and improve the law. Similarly, in the United States, the Equal Employment Opportunity Commission litigates on behalf of the public interest, which in practice provides legal representation to claimants, but in a limited number of cases. Overall, the first aim of free legal representation provided by equality bodies, NGOs or trade unions is often to serve the public interest, and in most private, individual cases, lodging a discrimination claim before the courts remains an expensive procedure.<sup>32</sup>

*... while potential benefits remain uncertain for individual victims of discrimination*

While costs are likely to be very high, benefits are uncertain in many cases: legal guidelines covering compensations are often not clearly specified in anti-discrimination laws (Table 3.3). As a result, for most countries under review, it is not possible to provide a single indication of monetary compensations awarded by the courts in discrimination cases, neither in terms of floors or caps, nor in terms of average or median amounts (see OECD, 2008c). In a number of cases, monetary compensations are defined through normal civil, administrative or penal laws, or in the labour code. To evaluate the costs and benefits of taking a legal action, victims of discrimination have to understand the provisions of these various laws and codes, a difficult task that is likely to restrain them from filing a claim (Holmaat, 2007; Malheiros, 2007). Overall, compensatory damages (established by law or case law), both well-identified and potentially substantial, only exist in a few countries: Australia, Canada, Denmark, Finland, Sweden, the United Kingdom and the United States. Such provisions may have a sizeable impact on workers' incentives to bring a discrimination case before the courts. For instance, Donohue and Siegelman (2005) show that in the United States, the Civil Rights Act of 1991, which introduced additional statutory provisions for compensatory damages (for psychological distress) and more frequent access to jury trials, has generated more lawsuits and larger awards, even though the underlying phenomenon of workplace discrimination may have actually been declining.

Although reinstatement or redress with back pay is possible in virtually all countries, whether such an option may constitute an effective remedy is not obvious. Bringing a discrimination claim before the courts is likely to deteriorate the employment relationship, so that the latter can hardly continue. In Austria for instance, where in cases of unlawful dismissal reinstatement is ordered without the option to accept the termination and claim non-pecuniary damages, Schindlauer (2007) stresses that, as many victims refuse to go back to a discriminatory employer, there is, in practice, neither effective remedies nor sanctions for such discriminatory acts.<sup>33</sup>

*The risk of retaliation has to be addressed*

From being a victim of discrimination one may also become a victim of retaliation for having filed a complaint, which may constitute a serious barrier in enforcing anti-discrimination legislation. And

- 
32. In a number of countries, however, there exist simplified procedures for conflict resolutions that do not require the presence of a lawyer (see Section 3.4).
  33. There is an amendment to the law in Parliament which intends, in case of unlawful dismissal, to make it possible for the plaintiff to choose between reinstatement and compensation.

employer victimisation in discrimination cases is not uncommon. In the United States, for instance, retaliation claims accounted for about 30% of all discrimination charges received by the Equal Employment Opportunity Commission in 2007 (EEOC, 2008). To take another example, Havinga (2002) reports, from a telephone survey conducted in the Netherlands, that according to the complainants, 60% of the employers may react negatively to a discrimination claim. More than half of the employees who filed a discrimination complaint had changed jobs in the meantime and 60% of these changes were related to the complaint. About one-third of the complainants still working with their employer did experience negative consequences in their job. Furthermore, the Dutch Equal Treatment Commission itself points out that key witnesses regularly refuse to testify for fear of negative repercussions, thus unintentionally denying the plaintiff the full protection of equal treatment and non-discrimination law (CGB, 2004).

In virtually all countries, legal provisions protecting individuals from victimisation have been introduced in anti-discrimination laws (Table 3.3). In most cases, these provisions also cover witnesses and other employees who may give evidence or documents in connection with any proceedings against discrimination. Still, the perspective of possible employer retaliation may remain dissuasive. First, as a general matter of fact, gathering evidence that would enable a victimisation case before the courts may be difficult, and second, for victims of discrimination, this may lead to protracted legal procedures that they cannot always afford. As a minimum requirement, therefore, it is important that victimisation complaints receive the same favourable treatment which discrimination complaints are entitled to, as regards standard of proof and legal proceedings, rather than the treatment normally reserved to standard civil disputes.

### **3.3. *Employer incentives to comply with anti-discrimination legislation and follow an equality policy***

Taking a legal action can be a costly, complex, time-consuming and represents an adversarial process for victims of discrimination in the workplace. Anti-discrimination laws generally will have more impact if the enforcement is not exclusively dependent on the initiative of individuals deprived of their rights. Enforcement by specific agencies can thus play an important role. In this respect, Liggett (1969) shows for instance that in the United States, before the enactment of Title VII of the Civil Rights Act (the federal anti-discrimination legislation) in 1964, the establishment of so-called fair employment practices commissions (FEPC) helped improve the labour market situation of Black workers in states where such commissions were empowered to conduct formal investigations and follow-up reviews. In states where FEPCs had only purely advisory functions, and even in states where FEPCs could enforce their orders through the courts but did not have the legislative support or administrative resources to carry out investigation and reviews, exclusion practices were more persistent.

In most countries, national equality bodies (or other relevant bodies) are empowered to conduct formal investigations, on their *own* initiative and behalf, either randomly or in companies and organisations where there is evidence of discrimination, and to take legal actions when deemed necessary (Table 3.4). While not directly supporting current individual victims of discrimination, such actions may raise the profile of equality issues, establish the value of eliminating discrimination and change people's behaviour, thus indirectly helping all potential victims of discrimination. However, to have an impact, this investigative activity needs to be associated with effective and proportionate sanctions against discriminatory employers (Table 3.4). Publicity of discrimination cases may play a key role in this respect, and such sanctions are available in most countries. Likewise, administrative sanctions, such as withdrawal of public subsidies or other benefits, cancellation of public contracts and temporary ineligibility to compete for public contracts, reinforce the view that the society as a whole, and first and foremost, public institutions, should ban discriminatory practices and promote the principle of equal treatment. But such administrative sanctions are found in only a few countries: Austria, Italy (as regards gender discrimination

cases only),<sup>34</sup> Portugal, Spain, Switzerland and the United States. Other available sanctions are fines or prison sentences. They are likely to be less effective, since they often are of a penal nature, and thus only enforceable through penal procedures with highly restrictive standards of proofs. Only Greece, Mexico, Portugal and Spain have highly dissuasive administrative fines. Finally, the overall procedure is likely to be more effective, or at least less time-consuming, when administrative sanctions can be imposed directly by equality bodies (or equivalent bodies) themselves, as in Finland (as regards gender discrimination cases only), France, Norway, Portugal and the United States.

**Table 3.4. Employer incentives to comply with anti-discrimination legislation and follow an equality policy<sup>a</sup>**

	Is the EB empowered to take legal action on its own initiative? <sup>b</sup>	Sanctions in case of non-compliance				Affirmative and positive action	
		Publicity <sup>c</sup>	Administrative, civil or penal fines	Other civil or administrative sanctions	Prison sentences	Allowed	Incentives
<b>Australia (FL)</b>	No	Yes	Penal AUD 10 000 max	None	Yes (3 months max)	Yes	Legal requirements, delivery of labels. Financial support (ethnicity only)
<b>Austria (FL)</b>	No	No	Penal, rare Low	Withdrawal of federal benefits	None	Yes	Delivery of labels, financial support
<b>Belgium (FL)</b>	Yes (gender: low, ethnicity: high)	Yes	Gender: none Ethnicity: penal, low	None	Gender: none Ethnicity: 1 to 12 months	Yes	Delivery of labels, financial support
<b>Canada<sup>d</sup> (FL)</b>	Yes (high)	No	None	None	None	Yes	None
<b>Czech Republic</b>	Employment offices and labour inspectorates	No	Administrative EUR 31 900 max	None	None	Yes	None
<b>Denmark<sup>d</sup></b>	No	No	Penal, approx. DKK 1 000, for discriminatory job ads	None	None	No, in general	None
<b>Finland</b>	Gender: EB Ethnicity: labour inspectorate	No	Penal	Gender: EB empowered to imposed fines	Yes (6 months max)	Yes	Gender: legal requirements, delivery of labels
<b>France</b>	Yes (low)	Yes	Penal, EUR 45 000 max	EB empowered to imposed fines	Yes (3 years max)	Yes	Delivery of labels
<b>Germany<sup>d</sup></b>	No	Yes	Administrative and penal, rare	None	None	Yes	Counselling
<b>Greece</b>	Gender only: labour inspectorate (high)	Gender: in some cases Ethnicity: no	Administrative, EUR 1 000-30 000 Gender: no cap for civil and penal sanctions	Full civil protection	Yes (6 months min)	Yes	Gender: delivery of labels, financial support
<b>Italy</b>	Yes (low)	Yes	Gender: administrative, low, never applied Ethnicity: no	Gender: withdrawal of state benefits, never applied Ethnicity: no	None	Gender: yes Ethnicity: no	Gender: public subsidies
<b>Japan<sup>d</sup> (gender only)</b>	Yes (high)	Yes, in some cases	Penal, in some cases (JPY 300 000 max)	None	Yes, in some cases (6 months max)	Yes	Delivery of labels, counselling and other assistance

34. In Italy, however, these sanctions are envisaged only for the most serious breach of the prohibition to discriminate and, in practice, have never been applied to date.

<b>Korea<sup>d</sup></b>	No	Yes	Penal gender: max 5 to KRW 30 million	None	Yes (gender: 5 years max)	Yes	Delivery of labels, administrative and financial support
<b>Mexico</b>	Yes (high)	Yes	Labour law, 3 to 315 times the daily minimum wage	None	Yes (3 days to one year)	Yes	Delivery of labels, financial support
<b>Netherlands</b>	Yes (low)	Yes (EB only)	Penal, EUR 6 700 max	None	Yes (max of 2 or 6 months)	Yes	Counselling and other assistance
<b>Norway</b>	Yes	No	Administrative	EB empowered to impose administrative fines	Gender: no Ethnicity: yes (3 years max)	Yes	None
<b>Poland</b>	Yes	No	Penal Vary between EUR 300 and EUR 200 000 max	None	Yes (3 years max)	Yes	Gender: delivery of labels and financial support
<b>Portugal<sup>d</sup></b>	No	Yes	Administrative. Clearly specified in the Labour Code, vary from EUR 1 780 to EUR 53 400, according to the degree of fault, seriousness of the offence and employer turnover.	Ethnicity: EB empowered to order the removal of benefits granted by public bodies or services, and the removal of the right to participate in trade fairs and public markets.	None	Yes	Gender: delivery of labels
<b>Spain<sup>d</sup> (gender only)</b>	No	Yes	Administrative. Vary according to the degree of fault from EUR 3 000 to EUR 90 000.	Possible removal of tax relief, subsidies and any benefits in connexion with employment programmes.	yes (6 months to 2 years)	Yes	Requirement of gender equality plan in large companies (with numerical goals), delivery of labels, financial incentives
<b>Sweden<sup>d</sup></b>	Yes (low)	No	None	None	None	Yes	Legal requirements
<b>Switzerland (gender only)</b>	No	Yes	None	Possible debarment from receiving Federal Government contracts	None	Yes	Financial support
<b>United Kingdom</b>	Yes	Yes	None	None	None	Yes	
<b>United States<sup>d</sup> (FL)</b>	Yes (medium)	Yes	None	Cancellation of and debarment from receiving Government contracts Termination, denial, or discontinuance of Federal financial assistance	None	Yes	Legal requirements for public contractors, "Awards" for best practices

FL: information reported in the above table refers to Federal Laws; EB: equality bodies.

a) Whenever no distinction is made between gender and ethnic grounds, answers cover both.

b) That is, the body in question can take legal action against companies or organisations that apply discriminatory practices, even if no specific victim is referred to (in which case the consent of a victim is not required). Annotations in parentheses refer to the level of priority attributed by the body in charge of implementing the specified task. High, medium and low, respectively, mean above, close to and below-average importance of the specified task in the actual overall workload of the corresponding body.

c) Publicity means that courts (or other relevant bodies) can order the nominative publication/publicity of a discrimination case, and/or send a notice outside the firm in question (media, trade unions, etc.).

d) Country notes:

Canada: *Fines* – Remedial legislation as opposed to penal. There is, however, a penalty provision, a fine not exceeding CAD 50 000, in case of victimisation/retaliation as well as for a person obstructing an investigator or a member or panel of the Tribunal in carrying out their functions. *Positive and affirmative action*: there are two acts regulating affirmative/positive action, the federal Employment



Equity Act that applies to the federal public sector and to federally-regulated private sector companies, and the Quebec Act respecting equal access to employment in public bodies that applies to the Quebec public sector only. These two Acts require employers to make regular public reports on employment composition and to take positive action to promote employment of disadvantaged groups. They cover only about 10% of Canadian workers, however.

Denmark: *Positive actions* – Positive actions allowed only in projects with public authorization. Gender preferential treatment is allowed in the case of training if that gender is under-represented.

Germany: *Publicity* – Due to privacy rules, publicity is likely to be limited to official court documents (MIPEX, 2007). *Incentives*: most of the activity related to incentives for the private sector is limited to counselling firms on how to comply with requirement of the anti-discrimination law.

Japan: *Publicity* – In the event that an employer is in violation of any of the provisions contained in this Law regarding the prohibition to discriminate and the Minister of Health, Labour and Welfare has given a recommendation, but the employer has not complied with it, the Minister of Health, Labour and Welfare may make a public announcement to that effect.

Korea: *Prison sentence* – gender: imprisonment of five years or less or a penalty of KRW 30 million or less in case of violation of the equal wage provision (for work of equal value in the same business). *Affirmative and positive actions* – gender: Affirmative action (employment improvement measures) is generally allowed, and government-invested institutions, subsidiary organisations of government, and companies with 500 workers or more are *required* to implement affirmative action. National and local governments can provide administrative and financial incentives to firms with good records in affirmative action.

Portugal: *Other civil or administrative sanctions* – In addition, the High Commissioner for Immigration and Ethnic Minorities (the EB) may also apply the following ancillary sanctions: publication of the decision; public admonition of the perpetrators of discriminatory practices; confiscation of property; prohibition of the exercise of a profession or activity which involves a public capacity or depends on authorisation or official approval by public authorities; compulsory closing of premises owned by the perpetrators; suspension of licences and other permits.

Spain: *Other civil or administrative sanctions* – In case of direct or indirect discrimination on the grounds of sex, these sanctions may be replaced by the preparation and application of an equality plan in the company, if so determined by the competent labour authority at the request of the company and after an official report issued by the Social Security and Employment Inspection Service. Should the equality plan not be prepared or applied or should it be carried out in manifest breach of the terms laid down in the ruling of the labour authority, on the proposal of the Social Security and Employment Inspection Service, the said authority will remove the effect of the substitution of the penalties in question.

Sweden: *Affirmative and positive action* – Employers are obliged under penalty of a fine to work for diversity and to prevent discrimination on grounds of gender as well as ethnicity through targeted and proactive measures. The ombudsmen against discrimination will supervise how the employers fulfil this obligation and have the power to enforce the work by bringing the case before a board that can decide whether the employer has done enough or not. When it comes to gender, some actions are mandatory. The employer must, for instance, every year examine the salaries of the employees from a gender perspective in order to ensure equal pay for equal work.

United States: *Is the EB empowered to take legal action on its own initiative?* – EEOC (Equal Employment Opportunity Commission) takes legal representation in about 40% of charges as to which the EEOC has found reasonable cause to find discrimination and following unsuccessful conciliation of the charge. EEOC litigates on behalf of the public interest, which in effect provides legal representation to claimants. *Affirmative and positive action*: no mandatory quotas, but goals and timetables.

Source: See OECD (2008c).

In addition to this coercive approach, all countries allow employers to take positive actions and provide them with incentives to do so, mainly in the form of labels publicising company good practices (Table 3.4). While in some countries (Australia, Finland, Norway, Spain and the United States), employers are legally required to implement specific and well-defined positive measures, Phillips *et al.* (2007) underline that in many cases, the fear of contravening the existing equality laws restrains employers from taking positive actions. First and foremost, they would need to receive clearer legal guidance and counselling. However, this kind of support is available only in a few countries, such as Germany, Japan and the Netherlands. Finally, recognising that implementing positive measures may have a cost, a number of governments provide employers with financial support.

More generally, the downside of anti-discrimination legislations is that some provisions may discourage employers from hiring disadvantaged groups in the first place. Affirmative and positive action policies can provide appropriate incentives to prevent this. For instance, the fact that employers' obligations as regards maternity leave – which may have a cost, at least in the short run – tend to have a detrimental impact on the recruitment of women of child-bearing age is well documented. In other words, where cost is involved employers tend to feel they have a legitimate reason for discrimination (ACAS, 2006a; Donohue, 2005). In this respect, the Spanish government has implemented an interesting measure:

firms do not have to pay any employers' social contributions when hiring an unemployed person, on a temporary contract, to replace an employee on maternity or adoption leave, or any leave during pregnancy or breastfeeding. It is noteworthy however, that while positive and affirmative action policies can constitute a valuable complement to anti-discrimination laws, they may themselves result in distortions, disincentive effects or call into doubt the merit of the targeted population (see Fryer and Loury, 2005). This would deserve an in-depth analysis that goes beyond the scope of this chapter, which primarily focuses on the legal aspects of equal treatment policies.

### **3.4. *Alternative resolution mechanisms: mediation and conciliation procedures***

Individual victims of discrimination face strong barriers to enforce their legal rights by bringing their case before the courts, in particular when they wish to continue working with their current employer. As underlined by ACAS in the United Kingdom, once a claim has been lodged, it can be very difficult to repair the employment relationship because of the adversarial nature of the litigation process. Even where the parties agree to settle before the actual hearing, this will often be on the basis of a termination of the employment relationship and compensation because of the damage that has already been done (ACAS, 2006b). In fact, while many of the potential benefits of pursuing discrimination cases are collective, many of the costs of pursuing them are individual (Burstein, 1989). Consequently, most national equality bodies also offer what is described as "mediation" at an early stage, preferably before any legal claim has been made (Table 3.5).

For both parties involved in a discrimination dispute, mediation presents several advantages (Keppler, 2003):

- First, it offers the likelihood that the employment discrimination complaint might be resolved faster and cheaper. Mediation procedures take on average between two and eight months in countries where such information is available (Australia, Canada, France, Greece, Japan, Switzerland, United Kingdom and United States, see OECD, 2008c) and are free for both parties since they do not require legal representation by a private lawyer. Besides, effective mediation procedures can also achieve considerable savings to the public purse. In the United Kingdom for instance, the high resolution rate of labour disputes by ACAS considerably reduces potential hearing days at Employment Tribunals (75% of potential hearing days are saved in this way). In addition, the cost per case settled or withdrawn through ACAS is GBP 393, while the cost per case heard at an Employment Tribunal is about GBP 2 000 (ACAS, 2006b).
- Second, the mediation's non-adversarial setting not only increases the probability of compromise, but also reduces the risk of irreparably damaging the employment relationship. Indeed, in virtually all countries, mediation takes place on a voluntary basis, is assisted by a third neutral party and offers the parties confidentiality. By playing the role of an unbiased advisor, the mediator can help the parties re-evaluate unrealistic assumptions and thus bridge the gap between the parties' initial positions, while the confidentiality afforded by mediation allows the parties to make the admissions and concessions necessary to reach a compromise solution. Since a mediator is not a decision maker, any decision is left to the parties, increasing the parties' acceptance and overall satisfaction with the outcome and providing the basis for rebuilding a fractured employment relationship.

The effectiveness of mediated settlements is reduced in countries where they are not legally binding, such as Belgium, Germany, Greece, the Netherlands and Portugal (Table 3.5). For victims of discrimination, this renders mediation much less attractive. In some countries, participation is not established on a voluntary basis and/or the equality body does not act as a fully neutral third party. This is, for instance, the case in Austria, Finland, Norway or in the Netherlands, where national equality bodies act

as a semi-judicial body empowered to give an opinion on a discrimination claim, seeking to secure the parties' voluntary compliance with it. This is also the case in Canada and the United States when it comes to the so-called conciliation procedures, where both participation is mandatory and the equality body seeks redress on the behalf of the claimant.<sup>35</sup> These procedures thus lie in between mediation and court proceedings: while the complaint may still be resolved faster and cheaper, they offer less guarantees as regards the possible continuation of the employment relationship.

Available evaluations suggest that mediation procedures offer a valuable alternative for discrimination dispute resolutions. The Canadian Human Rights Commission began offering mediation services in 1998, on a pilot-project basis, in order to evaluate the effectiveness of the programme (CHRC, 2000). The two-year pilot project came to an end in the fall of 2000. During this time, mediation was offered to the parties in some 500 complaints. The participation rate in the programme, *i.e.* the proportion of complaints in which both parties agreed to participate, was 60%. And settlements were reached in 56% of cases. Evaluations showed that the majority of complainants and respondents felt that mediation had been worthwhile whether or not a settlement was reached. Mediation is now widely used by the Canadian Human Rights Commission: it represented 40% of all cases dealt with in 2006. Most of these settlements were reached with the assistance of a Commission mediator or conciliator. In a small number of cases, the parties settled the matter on their own (CHRC, 2006). The mediation programme available in the United States was also recently evaluated (McDermott *et al.*, 2000). And here again, results are encouraging. The majority of the participants felt that the mediator understood their needs (87%) and helped to clarify their needs (82%). Most participants (85%) also felt that the mediator played a very useful role in the development of options for the resolution of the dispute and a majority (59%) were satisfied with the results of mediation. Overall, about 60% of the participants resolved their claims through the mediation programme. And among those who failed, about 30% nevertheless recognised that progress was made in mediation toward the resolution of their claim.

**Table 3.5. Mediation and conciliation procedures<sup>a</sup>**

	Existence of an institutional framework for mediation/conciliation	General characteristics of the mediation/conciliation procedure			Status of the agreement reached by the parties	
		Voluntary process	Intervention of, and guidance from, a third neutral party	Confidentiality	Legally binding	Enforcement secured by the relevant body
<b>Australia (FL)</b>	Yes	Yes	Yes	Yes	Yes	No
<b>Austria (FL)</b>	Not explicitly	The EB is empowered to give an opinion and seeks to secure the parties' voluntary compliance with it.			Yes	No
<b>Belgium (FL)</b>	Yes	Yes	Yes	Yes	No	No
<b>Canada<sup>b</sup> (FL)</b>	Yes	Mediation: yes Conciliation: no	Yes	Yes	Yes	Yes
<b>Czech Republic</b>	No	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Denmark<sup>b</sup></b>	Yes	Gender: The EB can assist parties in finding a settlement through mediation  Ethnicity: yes      Ethnicity: yes      Ethnicity: yes			Yes	No
<b>Finland</b>	Gender: not explicitly Ethnicity: no	Gender: the EB is empowered to give an opinion and seeks to secure the parties' voluntary compliance with it. If there is no voluntary compliance, the EB can enforce its decision with the threat of a penalty.			Gender: EB decisions can only be appealed to the tribunal.	Yes
<b>France</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Germany</b>	Yes	Yes	Yes	Yes	No	No
<b>Greece<sup>b</sup></b>	Yes	Yes	Yes	Yes	No	No

35. More precisely, in Canada, if the Canadian Human Rights Commission chooses to order conciliation, participation by the claimant and the respondent is mandatory; and if both parties come to a settlement, the Commission can enforce the terms of that settlement (usually at the request of the claimant).

<b>Italy</b>	Yes	Yes	Yes	Partly	Yes	No
<b>Japan</b> (gender only)	Yes	Yes	Yes	Yes	Yes	No
<b>Korea</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Mexico</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Netherlands</b>	Not explicitly	The EB is empowered to give an opinion and shall seek to secure the parties' voluntary compliance with it.			No	No
<b>Norway<sup>b</sup></b>	Not explicitly	The EB is empowered to give an opinion and shall seek to secure the parties' voluntary compliance with it. If there is no voluntary compliance, the EB is empowered to make administrative decisions.			EB decisions can only be appealed to the tribunal.	Yes
<b>Poland</b>	No	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Portugal</b>	Gender: no Ethnicity: yes	Ethnicity: yes	Ethnicity: yes	No	No	No
<b>Spain</b> (gender only)	No	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Sweden</b>	Yes	Yes	Yes (EB non neutral)	No	Yes	Yes
<b>Switzerland</b> (gender only)	Yes	Yes	Yes	Yes	Yes	No
<b>United Kingdom</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>United States<sup>b</sup></b> (FL)	Yes	Mediation: yes Conciliation: no	Mediation: yes Conciliation: no	Yes	Yes	Yes

FL: information reported in the above table refers to Federal Laws; EB: equality bodies.

n.a.: not applicable.

a) Whenever no distinction is made between gender and ethnic grounds, answers cover both.

Belgium: intervention of and guidance from a third neutral party. Ethnicity: the equality body is not a neutral party since it can bring cases before the courts.

b) Country notes:

*Canada*: mediation and conciliation refer to two distinct procedures. The main difference is that mediation is voluntary while conciliation is mandatory. The Commission encourages use of mediation early in the complaint process, although it is available at any stage up to Tribunal hearings. Conciliation generally takes place after an investigation of the facts, before a case is referred to the Tribunal. However, the Commission can order conciliation at an earlier stage. The roles of the conciliator and the mediator are quite similar. But, unlike mediators, conciliators give direct feedback on the strengths and weaknesses of arguments, opinions and proposals.

*Denmark* : the EB for gender discrimination complaints (Gender Equality Board), in comparative law terms, lies in between a conciliation organisation and a tribunal with, in addition, investigative power. Without acting as a mediator, it can assist parties reaching a settlement agreement. If mediation fails, it has the authority to make administrative decisions, which may be appealed to the Tribunal.

*Greece*: confidentiality: The settlement process followed by the Labour Inspectorate is confidential but the plaintiff may use the mediation conclusions in court.

*Italy*: the mediation process is regulated by the labour code, the code for civil proceedings and similar laws for disputes with the public administration. EBs can, however, act as mediators.

*Norway*: the EB, in comparative law terms, lies in between a conciliation organisation and a tribunal with, in addition, investigative power. The Ombud has the authority to make administrative decisions, which may be appealed to the Tribunal. The Ombud may give an opinion as to whether a matter is in contravention of anti-discrimination provisions contained in the legislation. The Ombud shall seek to secure the parties' voluntary compliance with this opinion. If a voluntary arrangement cannot be reached, the Ombud may bring the case before the Tribunal. In addition, if the parties do not voluntarily comply with the opinion of the Ombud and if waiting for an administrative decision by the Tribunal will cause inconvenience or have a harmful effect, the Ombud may make administrative decisions (that may be appealed to the Tribunal).

*United States*: EEOC (Equal Employment Opportunity Commission) encourages use of mediation early in the complaint process, although it is available at any stage up to Tribunal hearings. Conciliation generally takes place after an investigation of the facts, before a case is referred to the Tribunal. EEOC operates as a neutral party during mediation, but seeks remedial action on behalf of the claimant during conciliation. OFCCP (Office of Federal Contract Compliance Program) conciliates directly with the contractor as a party to secure relief on behalf of the victims. If the contractor declines to participate or the conciliation is otherwise unsuccessful, OFCCP may refer the matter to the Department's Office of the Solicitor. The Office of the Solicitor may file an administrative complaint.

Source: See OECD (2008c).

As noted by O’Cinneide (2002), concerns were initially expressed that mediation would allow individuals to achieve personal remedies without securing overall systemic change in the behaviour that led to their complaint. Results to date have, however, shown that mediated settlements can result in broader remedies, such as anti-discrimination training, a review of staff structures and pay scales. Nevertheless, the possibility exists that extensive use of mediation could reduce overall enforcement, by focusing on individual remedies at the expense of systemic ones and preventing the establishment in case-law of clear precedent. More generally, mediation should probably be seen as an alternative to, but never as a replacement of, effective enforcement through the legal system. Replacing meaningful enforcement with conciliation and mediation could remove the sting of the legislation: mediation will always work better against the background threat of litigation.

### 3.5. *How effective are these anti-discrimination frameworks?*

Evaluations of national legislative efforts to ban discrimination are scarce. Having a long-standing experience in policy to ban discrimination compared to most other OECD countries, the United States is probably the only country where there are enough pieces of evidence to draw some conclusions on the impact of anti-discrimination legislation on race and gender differentials in labour market performance (Annex Table 3.A2.2; and for comprehensive surveys, see Donohue and Heckman, 1991; Altonji and Blank, 1999; and Donohue, 2005):

- First, available empirical evidence shows that laws barring discrimination helped to improve the relative labour market situation of ethnic minorities, in terms of both earnings and employment. And while their impact on gender differentials is less documented, there also is some evidence that these laws contributed to reduce gender wage gaps and helped women to get jobs in male dominated occupations.
- Second, these effects materialised over time, through direct and indirect channels, as enforcement capacity and ability increased and public opinion changed. Thus, evaluating their magnitude is not an easy task and, to date, there is no strong consensus on this important issue (see Donohue and Heckman, 1991; Altonji and Blank, 1999).
- Third, anti-discrimination provisions may also have side-effects on the populations they are intended to protect and need to be carefully designed. For instance, some evaluations suggest that early State legislation, which introduced gender equal pay provisions without additional employment protection (*i.e.* without nondiscrimination provisions regarding hiring and dismissals), widened gender employment gaps. And even when discriminatory hiring practices are prohibited by law, strong on-the-job protections (*e.g.* regarding pay and dismissal) may still restrain some employers from hiring protected workers in the first place (see Oyer and Schaefer, 2002).

Cross-country evaluations are even scarcer. Indeed, no cross-country comparable time-series of the degree of stringency of anti-discrimination regulations is available. To cope with this lacuna, Weichselbaumer and Winter-Ebmer (2007) use ratifications of international conventions on discrimination – ILO’s Conventions on Equal Remuneration for Men and Women Workers for Work of Equal Value and on Discrimination in Respect of Employment and Occupation and the UN’s Convention on the Elimination of All Forms of Discrimination against Women – as proxies for domestic anti-discrimination laws,<sup>36</sup> and find a robust negative impact of this variable on the gender wage gap in their meta-analysis concerning OECD and non-OECD countries.

---

36. This proxy is clearly very rough, not least because certain early adopters of stringent regulations always refused to sign international conventions.

For the purpose of this chapter, the analysis of Weichselbaumer and Winter-Ebmer (2007) has been replicated on OECD countries only and further extended to gender employment gaps, using the same methodology employed above for the analysis of product market regulation (see Box 3.4). Two indexes of ratifications of anti-discrimination conventions are developed: a qualitative index that takes value one if at least one convention is ratified and not denounced; and a quantitative index that counts the number of conventions that are ratified and not denounced, and allows for non-integer scores in the case of reservations concerning labour market aspects of a convention (see Annex 3.A1). The econometric estimates show that both indexes are negatively and significantly associated to the gender employment gap in international data (Table 3.6, Panel A), and in particular with the portion of the gap that it is not accounted for by gender differences in labour supply and aggregate labour demand.<sup>37</sup> Taken at face value, ratification of all three anti-discrimination conventions is associated with a reduction in the gender employment gap between 0.5 and 1.3 percentage points.<sup>38</sup> While these figures are relatively small, they probably reflect the roughness of the proxy used.<sup>39</sup> Similar results emerge in the case of the gender wage gap (Table 3.6, Panel B) where, however, as in the analysis of the impact of product market regulation, point estimates are larger but also less precise (see Annex 3.B, for detailed results).<sup>40</sup> Overall, available evidence confirms that anti-discrimination legislation can have a significant impact on labour market disparities.

- 
37. The analysis of the association between convention ratifications and the employment gap is performed on two unbalanced samples: an extended sample covering all countries and years for which data are available – including 28 countries from 1960 to 2003 (all OECD countries except Iceland and Luxembourg) – and a more restricted sample – 21 countries from 1975 to 2003 as in Section 2.3 (see above for the list of countries) – where product market regulation indicators are available and a larger list of controls can be included. However, since most OECD countries had already ratified at least one convention by 1975, the analysis of the association of the qualitative index with the employment gap is not repeated in the restricted sample. For the same reason, due to the small number of country-by-time points before 1975 for which wage data are available, the analysis of wage gaps and the qualitative index is not undertaken.
38. Granger-causality tests suggest that this association is likely to reflect a causal impact of the adoption of anti-discrimination laws on the gender employment gap (see Annex 3.B).
39. Notice that the apparent greater estimated effect per convention of the qualitative index might be due to the likely lower noise to signal ratio of this index with respect to the quantitative one.
40. The most reliable estimates (excluding outliers) are nonetheless in the range of those obtained by Weichselbaumer and Winter-Ebmer (2007).

**Table 3.6. Ratification of anti-discrimination conventions is associated with a lower gender employment and wage gaps<sup>a</sup>**

<b>Panel A. Effects of ratification indexes on the gender employment gap (in percentage), working-age population<sup>b</sup></b>							
	Period 1960-2003				Period 1975-2003		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Anti-discrimination conventions (qualitative index)	-1.15*** [6.80]	-1.11*** [6.74]	-1.17*** [6.93]	-1.19*** [6.96]			
Anti-discrimination conventions (quantitative index)	-0.18* [1.96]	-0.16* [1.77]	-0.18** [2.00]	-0.20** [2.12]	-0.41* [1.92]	-0.44** [2.06]	-0.44* [1.84]
Observations	971	971	953	953	436	436	414

<b>Panel B. Effects of ratification indexes on the logarithm of the gender wage gap (in percentage), 1975-2001<sup>c</sup></b>						
	No control for outliers			Excluding outliers		
	(1)	(2)	(3)	(4)	(5)	(6)
Anti-discrimination conventions (quantitative index)						
	-0.071** [2.19]	-0.065** [2.02]	-0.070** [2.13]	-0.050** [2.05]	-0.044* [1.82]	-0.047* [1.94]
Observations	188	188	188	185	185	185

*Note:*

*Interpretation:* the table shows that i) the ratification of at least one anti-discrimination convention is estimated to reduce the gender employment gap by 1.1-1.2 percentage points (Panel A); and ii) the ratification of all three conventions is estimated to narrow the gap by 0.5-1.3 percentage points (Panel A); and iii) the ratification of all three conventions is estimated to narrow the gender wage gap by 1.3-2.1 percentage points (Panel B).

a) Each cell refers to a different specification. The qualitative index takes value 1 when at least one international convention on discrimination has been ratified and not denounced. The quantitative index varies between 0 and 3, depending on the number of ratified conventions that have not been denounced (adjustments are made for ratifications with reservations).

b) All specifications control for the gender labour participation gap and total employment rate, include country dummies, time dummies and country-specific time-trends and, except for those in column (1), include controls for ratification of conventions banning female night and underground work. Specifications in columns (3), (4), (5), (6) and (7) also include the logarithm of import penetration. Specifications in column (4) include a control for collective bargaining conventions. Specifications in columns (5), (6) and (7) include product market regulation, the share of services in GDP and, except in column (5), union density. Specifications in column (7) include controls for EPL, tax wedge for couples, average benefit replacement rate and a dummy for high corporatism.

c) The dependent variable is the unexplained residual reported in the different studies included in the meta-analysis. Observations refer to the number of country-by-year couples. All specifications control for meta-variables and include country dummies, time dummies and country-specific time-trends. All specifications include product market regulation. Equations (2), (3), (5) and (6) also include EPL. In addition, equations (3) and (6) include the (log) gender employment gap and controls for ratification of conventions banning female night and underground work.

Robust t statistics in brackets: \*, \*\*, \*\*\*: statistically significant at the 10%, 5%, 1% level, respectively.

*Source:* OECD estimates (see Annex 3.B, for detailed results).

## Conclusion

Available evidence suggests that gender and racial discrimination in the labour market is still significant in a number of OECD countries. The chapter mainly focuses on coercive legal approaches, as a tool for policy-makers to fight discrimination. It provides some evidence that such approaches can help improve the labour market situation of women and ethnic minorities. Importantly, the merit of anti-discrimination laws resides not only in their capacity to repress unwanted behaviours and compensate victims, but also in their capacity to induce cultural change and redefine socially acceptable practices.

Anti-discrimination legislation is, however, only one possible tool to combat discrimination and more research is needed on positive action and incentive schemes that can elicit virtuous behaviour. In addition, the chapter shows that increased competitive pressure on the product market has contributed to reduce employment and wage gaps. In this context, by proceeding further along the route of regulatory reforms, OECD member countries are likely to not only to strengthen productivity and growth but also to reduce discrimination and disparities in the labour market.

The ways in which the institutional framework interacts with discriminatory behaviour in shaping their effect on employment and wage gaps deserves, however, further exploration. For instance, minimum wage legislation *de facto* reduces the scope for unequal wage treatment based on discrimination, but may reinforce discriminatory hiring practices. Likewise, employment protection legislation restrains employers from adopting discriminatory approaches as regards firings, but may have the opposite effect on the hiring process. To take another example, in “insider-outsiders models” discriminated groups will tend to fare less well in the labour market since discrimination is likely to place them in an outsider position: thus, they will face the same barriers to employment as any other outsider, in addition to the specific barriers they face in relation to discriminatory employment practices *per se*. More generally, discrimination might interact with policies designed to increase labour supply. In fact, by affecting labour market returns, discriminatory practices will discourage labour market participation. But, anticipation of differential returns from educational choices could also influence individual incentives to invest in education and training, the choice of field of study and, later on, the choice of industries and occupations. These interaction mechanisms are potentially important in shaping the overall consequences of employer discriminatory behaviours. A deeper analysis of such interactions may contribute to a better understanding of the factors underlying the observed wage and employment gaps, which in turn, may have important implications for the design of an effective strategy to mobilise human resources from under-represented groups.



**ANNEX 3.A1  
DATA SOURCES AND DEFINITION**

**Employment and wage data in Section 1**

Employment rates: Unless otherwise specified, employment data come from the OECD database on Labour Force Statistics. Employment rates by educational attainment are taken from *Education at a Glance – OECD Indicators* (OECD, 2007). When necessary (Figure 3.2) adjustments were made to correct for minor discrepancies between the total employment rate according to the OECD databases on Education at a Glance and on Labour Force Statistics.

**Table 3.A1.1. Wage data (except for Figure 3.4)**

	Sources
European countries	Unless otherwise specified, data are estimated by the OECD using the European Community Household Panel (ECHP). Hourly wages refer to gross monthly earnings in the main job divided by 52/12 and then by usual weekly hours of work for employees working for at least 15 hours a week. Overtime pay and hours are included.
Australia	Data are derived from the August 2000 Labour Force Survey and the supplementary survey "Employee Earnings, Benefits and Trade Union Membership". Average gross hourly wages are calculated using total weekly earnings divided by actual hours worked.
Canada	Hourly wages are estimated using the Cross National Equivalent File (CNEF). Earnings are gross annual labour earnings divided by annual hours worked.
Korea	Hourly wages are estimated using the Korean Labor and Income Panel Study, wave 4 (2001). For employees paid by the hour, they refer to gross hourly earnings. For employees paid daily, weekly or monthly, hourly earnings are estimated as gross weekly earnings (daily earnings are multiplied by five and monthly are divided by 52/12) divided by average weekly hours of work.
New Zealand	Data are from the New Zealand Income Survey which is run annually as a supplement to the Household Labour Force Survey in the June quarter. Data refer to the June 2001 quarter. Information on earnings includes actual and usual wages and salaries (including ordinary time, overtime and other income) for the main job and up to two other jobs. The earnings measure used in the tables is average usual hourly earnings from all wage and salary jobs.
Sweden	The data were provided by Statistics Sweden based on the <i>Statistics Yearbook of Salaries and Wages</i> (2000). The data come from five different sources, three of which pertain to the public sector and cover the entire population; the other two sources are based on enterprise sample surveys covering the private sector. The wages are gross wages and include agreed bonuses but exclude overtime and profit-sharing. In the public sector the hourly wages were calculated by dividing the monthly wage by 165, the average worked hours per month. In the private sector the hourly wages were calculated by dividing the total wage by contractual worked hours (overtime hours are excluded).
Switzerland	Hourly wages were calculated by the Swiss Statistical Office based on the 2001 Enquête de la Population Active by dividing gross annual earnings by 52 and then by usual weekly hours of work.
United States	Hourly wages are estimated using the March Outgoing Group of the Current Population Survey (CPS). Earnings are gross annual labour earnings divided by annual hours worked. Average estimated wage gaps can be biased by the fact that wage data in the CPS are top coded. This problem does not apply to median wage gaps.

**Table 3.A1.2. Data for Figure 3.4  
Employment and wage gaps between “white” and “non-white” groups in Canada,  
the United Kingdom and the United States**

	<b>Employment data</b>	<b>Wage data</b>
Canada	Data are limited to the private sector and estimated using the Cross National Equivalent File (CNEF).	Earnings are gross annual labour earnings in the private sector divided by annual hours worked and are estimated using the same source as for employment.
United Kingdom	Data are limited to the private sector and estimated using the Quarterly Labour Survey, September to November 2005. The educational attainment of foreign-born individuals, not being comparable to native-born, is set to missing.	Earnings are average gross hourly pay for employees in the private sector and are estimated using the same source as for employment
United States	Data are limited to the private sector and estimated using the Current Population Survey (CPS).	Hourly wages are estimated using the March Outgoing Group of the Current Population Survey (CPS). Earnings are gross annual labour earnings divided by annual hours worked.

**Details on definitions and sources for regressions in Section 2**

**Table 3.A1.3. Aggregate variables**

	<b>Definitions</b>	<b>Sources</b>
Aggregate employment rate	Employed workers as share of the working-age population (15-64 age group), in %. Data adjustment: While the primary source is the OECD database on Labour Force Statistics, Annual Labour Force Statistics – which tend to be available over longer time periods – were also used in some cases to extrapolate employment rates backwards (under the assumption of similar percentage changes in unemployment and employment rates in both sources). Missing observations are obtained by linear interpolation when possible.	OECD database on Labour Force Statistics; OECD, Annual Labour Force Statistics.
Group-specific employment rates	Employed workers as a share of the corresponding population group, in percentage.	OECD database on Labour Force Statistics.
Wage gaps	Unexplained wage gap residuals from regression-based decompositions. The primary source is the meta-dataset of Weichselbaumer and Winter-Ebmer (2005), kindly provided by the authors. Additional estimates for 13 European countries using ECHP data, by applying the Oaxaca-Blinder decomposition and using estimated male regression coefficients to identify returns to characteristics in the absence of discrimination. For each country and year, the logarithm of hourly wages of prime-age wage and salary male workers in the private sector, working at least 15 hours per week at the time of the survey, is regressed on a quadratic in potential experience, three levels of educational attainment, five categories of firm size, a dummy for previous unemployment experience (plus a dummy for missing values as regards to previous unemployment experience), a dummy for part-time status, regional dummies and a spline in tenure (over the ranges 0-1 year, 1-3 years, 3-6 years, 6-9 years and 9-15 years), plus a dummy for tenure greater than 15 years and a dummy for non-reported tenure values.	Weichselbaumer and Winter-Ebmer (2005); OECD calculations from the European Community Household Panel (ECHP)
Meta control variables	Meta control variables are defined as in the preferred specification of Weichselbaumer and Winter-Ebmer (2005). They concern data selection variables, econometric and decomposition methods and the type of controls included in the regressions from which unexplained wage gap residuals were obtained.	Weichselbaumer and Winter-Ebmer (2005); OECD calculations from the European Community Household Panel (ECHP)
Product market regulation	OECD summary indicator of regulatory impediments to product market competition in seven non-manufacturing industries. The data cover regulations and market conditions in seven energy and service industries: gas, electricity, post, telecommunications (mobile and fixed services), passenger air transport, railways (passenger and freight services) and road freight. Detailed indicators exist also at the one-digit ISIC Rev. 3	Conway <i>et al.</i> (2006)

	classification for three industries (energy, transports and communications).	
Quantitative index of anti-discrimination convention ratifications	Number of conventions that are ratified and not denounced by a country at a given date, among ILO's Convention on Equal Remuneration for Men and Women Workers for Work of Equal Value (ILO C100), ILO's Convention on Discrimination in Respect of Employment and Occupation (ILO C111) and the UN's Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). <i>Data adjustment:</i> in the case of the CEDAW, 1/3 of unit is subtracted for reservation to Art. 11(1b), and 1/6 of unit is subtracted for each reservation to Art. 11(1c), Art. 11(1d) and Art. 11(2). The qualitative index is a dichotomous variable taking value 1 if at least one of the conventions is ratified and not denounced.	ILOLEX, <a href="http://www.ilo.org/ilolex/english/docs/declprint.htm">www.ilo.org/ilolex/english/docs/declprint.htm</a> CEDAW, <a href="http://www.un.org/womenwatch/daw/cedaw/status.htm">www.un.org/womenwatch/daw/cedaw/status.htm</a> .
Qualitative index of anti-discrimination convention ratifications	Dichotomous variable taking value 1 if at least one of the following conventions is ratified and not denounced: ILO's Convention on Equal Remuneration for Men and Women Workers for Work of Equal Value (C100), ILO's Convention on Discrimination in Respect of Employment and Occupation (C111) and the UN's Convention on the Elimination of All Forms of Discrimination against Women (CEDAW).	ILOLEX, <a href="http://www.ilo.org/ilolex/english/docs/declprint.htm">www.ilo.org/ilolex/english/docs/declprint.htm</a> CEDAW, <a href="http://www.un.org/womenwatch/daw/cedaw/status.htm">www.un.org/womenwatch/daw/cedaw/status.htm</a> .
Index of work-ban convention ratifications	Number of conventions that are ratified and not denounced by a country at a given date, among ILO's Conventions on the Employment of Women on Underground Work in Mines of all Kinds (C45) and Night Work of Women Employed in Industry (C89).	ILOLEX, <a href="http://www.ilo.org/ilolex/english/newatframeE.htm">www.ilo.org/ilolex/english/newatframeE.htm</a> .
Index of collective bargaining convention ratifications	Number of conventions that are ratified and not denounced by a country at a given date, among ILO's Conventions on Freedom of Association and Protection of the Right to Organise (C87) and the Application of the Principles of the Right to Organise and to Bargain Collectively (C98).	ILOLEX, <a href="http://www.ilo.org/ilolex/english/docs/declprint.htm">www.ilo.org/ilolex/english/docs/declprint.htm</a> .
Union density	Trade union density rate, <i>i.e.</i> the share of workers affiliated to a trade union, in percentage.	Bassanini and Duval (2006)
Union coverage	Collective bargaining coverage rate, <i>i.e.</i> the share of workers covered by a collective agreement, in percentage.	Bassanini and Duval (2006)
Degree of corporatism	Indicator of the degree of centralisation/co-ordination of the wage bargaining processes, which takes values 1 for decentralised and uncoordinated processes, and 2 and 3 for intermediate and high degrees of centralisation/co-ordination, respectively. The "high corporatism" dummy variable frequently used in this paper takes value 1 when bargaining is centralised or coordinated and zero otherwise.	Bassanini and Duval (2006)
EPL index	OECD summary indicator of the stringency of employment protection legislation incorporating both regular contracts and temporary work. <i>Data adjustment:</i> in the aggregate wage gap regressions, this indicator is assumed to be constant at its 1982 value between 1975 and 1982.	OECD (2004)
Labour tax wedge	Tax wedge between the labour cost to the employer and the corresponding net take-home pay of the employee for a single-earner couple with two children earning 100% of APW earnings. The tax wedge expresses the sum of personal income tax and all social security contributions as a percentage of total labour cost.	Bassanini and Duval (2006)
Average unemployment benefit replacement rate	Average unemployment benefit replacement rate across two income situations (100% and 67% of APW earnings), three family situations (single, with dependent spouse, with spouse in work) and three different unemployment durations (first year, second and third years, and fourth and fifth years of unemployment).	Bassanini and Duval (2006)
Weeks of unpaid parental leave	Maximum number of leave weeks that can be taken by a mother for the birth of a first child as maternity leave, parental leave and childcare leave. Focus is on the most generous provisions that can be obtained, even though these may not apply to all women depending on their employment history or income. Only leave provided under national legislation is used (variations in schemes by region, province, länder, or canton are not included).	Bassanini and Duval (2006)
Tax incentives for part-time work	Increase in household disposable income between a situation where the husband earns the entire household income (133% of average production worker earnings) and a situation where husband and wife share earnings (100% and 33% of average production worker earnings respectively) for a couple with two children. Denoting the first scenario by A and the second by B, the calculation is: Tax incentive to part-time = $(\text{Household net income}_A - \text{Household net income}_B) / \text{Household net income}_A$	Bassanini and Duval (2006)

Relative marginal tax rates on second earners	Ratio of the marginal tax rate on the second earner to the tax wedge for a single-earner couple with two children earning 100% of APW earnings (see definition of the "labour tax wedge" above). The marginal tax rate on the second earner is in turn defined as the share of the wife's earnings which goes into paying additional household taxes: $\text{Tax 2}^{\text{nd}} \text{ earner} = 1 - (\text{Household net income}_B - \text{Household net income}_A) / (\text{Household gross income}_B - \text{Household gross income}_A)$ , where A denotes the situation in which the wife does not earn any income and B denotes the situation in which the wife's gross earnings are X% of APW. Two different tax rates are calculated, depending on whether the wife is assumed to work full-time (X = 67%) or part-time (X = 33%). In all cases it is assumed that the husband earns 100% of APW and that the couple has two children. The difference between gross and net income includes income taxes, employee's social security contribution, and universal cash benefits. Means-tested benefits based on household income are not included (apart from some child benefits that vary with income) due to lack of time-series information. However, such benefits are usually less relevant at levels of household income above 100% of APW. <i>Data adjustments:</i> as this series began after 1980 for some countries, missing data prior to the first observation were replaced with the value of the variable in the first year it was available.	Bassanini and Duval (2006).
Family cash benefits	Increase in household disposable income from child benefits (including tax allowances) for a single-earner couple earning 100% of APW earnings. It is calculated as follows: $\text{Child benefits} = (\text{Household net income}_B - \text{Household net income}_A) / \text{Household net income}_A$ , where A denotes a household earning 100% of APW without children, and B denotes a household earning 100% of APW with two children.	Bassanini and Duval (2006).
Female (male) education	Number of years of education of the female population aged 25 and over.	Bassanini and Duval (2006)
Average years of education	Number of years of education of the population aged 25 and over.	Arnold, Bassanini and Scarpetta (2007)
Output gap	OECD measure of the gap between actual and potential output as a percentage of potential output.	Bassanini and Duval (2006)
Service sector share	Share of G to Q industries' nominal value-added (ISIC Rev. 3 classification) in the GDP.	OECD, STAN database.
Network industries share	Share of the nominal value-added of industries E and I (energy, transport and communications, ISIC Rev. 3 classification) in total GDP. These industries are those for which product market regulation indicators are defined.	OECD, STAN database.

APW: average production worker.

**Table 3.A1.4. Industry-level variables**

	Definitions	Sources
Profitability indicator	Ratio of industry output to intermediate input, labour and capital costs. <i>Data adjustments:</i> Capital stock is constructed by perpetual inventory method for countries where it is not provided in national accounts at a sufficiently disaggregated level. However, since reconstructed capital stocks are available only in volume terms, in practice nominal capital stocks are obtained by dividing them by value added in volume terms and pre-multiplying them by nominal value added from STAN. In the calculation of the cost of capital, following Griffith <i>et al.</i> (2006), it is assumed that capital flows freely across borders so that all countries face a world interest rate, for which the US long-term interest rate (from Bassanini and Duval, 2006) is used.	All data come from the OECD STAN database, except for data use to compute capital costs that come from ECO/CPE/WP1 (2008)4.
Employment	Number of wage and salary employees	OECD STAN database
Gender employment gap	<i>Definition:</i> Ratio of the male-female difference in the number of wage and salary employees aged 25-54 years and the number of male wage and salary employees aged 25-54 years.	European Labour Force Survey
Share of employees aged between 45 and 54 years	Ratio between the number of wage and salary employees aged 45-54 years and the number of wage and salary employees aged 25-54 years.	European Labour Force Survey
Share of employees with more than upper secondary education	Ratio between the number of wage and salary employees aged 25-54 years with more than upper secondary education and the number of wage and salary employees aged 25-54 years.	European Labour Force Survey

Share of part-time employees	Ratio between the number of wage and salary employees aged 25-54 years working less than 30 hours a week and the number of wage and salary employees aged 25-54 years.	European Labour Force Survey
Share of employees with more than upper secondary education	Ratio between the number of wage and salary employees aged 25-54 years working in firms with 10 employees or less and the number of wage and salary employees aged 25-54 years.	European Labour Force Survey

*Note:* all variables coming from the European Labour Force Survey refer to employees working at least 15 hours a week and living in the same country.

**ANNEX 3.A2  
SUPPLEMENTARY TABLES**

**Table 3.A2.1. National legal and institutional framework to fight labour market discrimination on gender and ethnic grounds<sup>a</sup>**

	Main national anti-discrimination laws	Main bodies contributing to the promotion and enforcement of anti-discrimination policies
<b>Australia<sup>d</sup></b> (federal laws)	Sex Discrimination Act (enacted in 1984) Racial Discrimination Act (enacted in 1975)	Human Rights and Equal Opportunity Commission (Human Rights and Equal Opportunity Commission Act, enacted in 1986)
<b>Austria<sup>b</sup></b> (federal laws)	Equal Treatment Act (enacted in 1979, last amended in 2005), for private sector	Ombud for Equal Treatment Commission for Equal Treatment (independent body) (Act on the Equal Treatment Commission and the Equal Treatment Office, enacted in 2004)
<b>Belgium<sup>b</sup></b> (federal laws)	Law of 10 May 2007 Combating Discrimination between Women and Men Law of 10 May 2007, amending Law of 30 July 1981 Criminalising Certain Acts Inspired by Racism and Xenophobia	Centre for Equal Opportunities and Opposition to Racism (1993) Institute for Equality between Women and Men (2003)
<b>Canada<sup>b</sup></b> (federal laws)	Canadian Human Rights Act (enacted in 1977)	Canadian Human Rights Commission (established in 1978)
<b>Czech Republic<sup>b</sup></b>	Charter of the Fundamental Rights and Freedoms (Sec. 14) Law N°435/2004 Coll. on Employment (Sec. 4, Para. 1,2,9, and Sec. 12, Para 1a) Law N°218/2002 Coll. on Official Service in State Administration and on Remuneration of these Official and Other Employees (Sec. 80, Para. 1)	No specialised bodies in charge of discrimination issues Employment Offices and Labour Inspectorates are relevant for some enforcement aspects.
<b>Denmark</b>	Act on Prohibition of Discrimination on the Labour Market (enacted 2005). Act on Equal Treatment (enacted in 2006), first time similar act passed, 1978. Act on Equal Pay (enacted in 2006), first time passed, 1976. Gender Equality Act (enacted in 2002)	<i>Gender only:</i> Centre for Information on Women and Gender (KVINFO, since 1964); Gender Equality Board (since 2002). <i>Ethnicity only:</i> Danish Institute for Human Rights (DIHR), since 2002; Complaints Committee for Ethnic Equal Treatment (since 2003).
<b>Finland</b>	Act on Equality between Women and Men (609/1986, last amended in 2005) Non-Discrimination Act (21/2004, enacted in 2004) Provincial Act on Prevention of Discrimination in the province of Åland (66/2005).	<i>Gender only:</i> the Ombudsman for Equality and the Equality Board (established in 1987); Council for Gender Equality (established in 1972) <i>Ethnicity only:</i> Ombudsman for Minorities (established in 2001). Occupational safety and health inspectorate (established in 1972).
<b>France</b>	Law Combating Discrimination (enacted in 2001) Law on Equal Opportunities (grounds: race and religion, enacted in 2006) Labour, Civil and Penal Codes	High Authority Combating Discrimination and Promoting Equality, HALDE (Law creating the specialised body, enacted in 2004)
<b>Germany</b>	Act on Equal Treatment/Anti-discrimination (enacted in 2006) Protection Against Dismissal Act	Federal Anti-discrimination Office (established in 2006)
<b>Greece</b>	Act 3488/2006, on the "Application of the principle of equal treatment of men and women regarding access to employment, vocational training and professional advancement, and working terms and conditions and other relevant provisions". Act 3304/2005 respecting the "Application of the principle of equal treatment irrespective of racial or national extraction, religious or other beliefs, disability, age or sexual orientation".	Greek Ombudsman (public sector only, established in 1997) Labour Inspectorate Body (private sector only, established in 1954) <i>Gender only:</i> General Secretariat for Equality of the Ministry of the Interior, Public Administration and Decentralization; Regional Committees for Equality (since 1985); and Research Centre on Equality Matters, legal entity under private law supervised by the General Secretariat for Equality (since 1994). <i>Ethnicity only:</i> Economic and Social Council of Greece (founded in 1994, established by the Constitution of Greece in 2001)

<b>Italy</b>	Gender: Legislative decree n. 198/2006 (amending previous laws). Ethnicity: Legislative decree n.215/2003 and Legislative decree n.286/1998 (Immigration law). Statute of Workers (both gender and ethnicity), regulating dismissals, since 1970.	<i>Gender only</i> : Network of Equality Advisors (since 2000). <i>Ethnicity only</i> : National Office Against Racial Discriminations (since 2004).
<b>Japan</b>	<i>Gender only</i> : Equal Employment Opportunity Law (enacted in 1986, amended in 1999 and 2007) and Labour Standards Law (Art. 4)	<i>Gender only</i> : Equal Employment Office of the Prefectural Labour Bureau (Ministry of Health, Labour and Welfare) and Equal Employment Opportunity Conciliation Commission established at each Prefectural Labour Bureau
<b>Korea</b>	Equal employment Act (enacted in 1987, revised in 1989, 1999 and 2005) National Human Rights Commission Act (enacted in 2001) As for ethnic/racial discrimination, there is no specific law beyond the NHRCA that aims at securing human rights in general.	National Human Rights Commission (established in 2001). Not really specialised in discrimination issues. Rather, this commission aims at securing human rights in general.
<b>Mexico</b>	Constitution (Art. 1 as amended in 2001) Federal Law for the Prevention and Elimination of Discrimination (enacted in 2003) Federal Labour Law	National Council for the Prevention of Discrimination (established in 2004) Labour Inspectorate Federal Public Labour's Defender Office Conciliation and Arbitration Board
<b>Netherlands</b>	General Equal Treatment Act (enacted in 1994, last amended in 2004)	Equal Treatment Commission (established in 1994)
<b>Norway</b>	Gender Equality Act (enacted in 1978, last major amendment in 2005) Anti Discrimination Act (2006)	Equality and Anti-Discrimination Ombud (established in 2006)
<b>Poland</b>	Labour Code (as amended in 2001 and 2003) Act of 20 April 2004 on the Promotion of Employment and Labour Market Institutions. (also important: Act on National Labour Inspectorate)	Ministry of Labour and Social Policy- Department of Women, Family and Counteracting Discrimination (January 2005) National Labour Inspectorate Commissioner for Civil Rights Protection
<b>Portugal</b>	Labour Code, Law 99/2003 (all grounds) Labour Relation Act, Law 35/2004 regulating Law 99/2003 (all grounds) Law 18/2004 on Racial and Ethnic Origin Discrimination (amended in 2005)	<i>Gender</i> : Commission for Citizenship and Gender Equality (established in 2007, prior Commission for Equality and Women's Rights, 1992, and Commission for Women's Status, around 1975); Commission for Equality in Labour and Employment (established in 1999) <i>Ethnicity</i> : Commission for Equality and Against Racial Discrimination (established in 1999), presided by the High Commissariat for Immigration and Ethnic Minorities All grounds: General Labour Inspectorate
<b>Spain</b>	Law 3/2007 for Effective Equality Between Men and Women Law 62/2003 on fiscal, administrative and social measures (Title II, Chapter III, including ethnic ground) Workers' Statute (law 8/1980, Royal Decree 1/1995); Law on Employment (56/2003); Law on Labour procedures (Royal Decree 2/1995); Law on Procedure in Industrial Disputes Royal Decree 7/1995); Law on Infringements and Penalties in the Social Sphere (Royal Decree 5/2000);	Social Security and Employment Inspection Service. Women's Participation Council (established by Law 3/2007): <i>not yet operational</i> Council for the promotion of equal treatment of all persons without discrimination on the grounds of racial or ethnic origin (established by Law 62/2003): <i>not yet operational</i>
<b>Sweden</b>	Equal Opportunities Act (enacted in 1991/92, gender ground only) Measures to Counteract Ethnic Discrimination in Working Life Act (enacted in 1999)	Equal Opportunities Ombudsman (established in 1980) Ombudsman against ethnic discrimination (established in 1986)
<b>Switzerland</b>	Federal Act on Gender Equality (enacted in 1995) (also: Swiss Code of Obligations) No specific Law as regards discrimination based on ethnic or racial grounds.	Federal Office for Equality between Women and Men Federal Office for Equality between Women and Men. Conciliation Offices (Commissions) at the cantonal level

<b>United Kingdom<sup>b</sup></b>	Sex Discrimination Act (enacted in 1975, last amended in 2005) Equal Pay Act (enacted in 1970, last amended in 2005, gender only) Race Relations Act (enacted in 1976, last amended in 2003)	Equality and Human Rights Commission (established in 2007) Arbitration, Conciliatory and Advisory Service (established in 1975)
<b>United States<sup>b</sup></b> (federal laws)	Title VII of the Civil Rights Act (enacted in 1964) Federal Executive Order 11246 Section 188 of the Workforce Investment Act of 1998	Equal Employment Opportunity Commission (established in 1965) Office of Federal Contract Compliance Programs (charged with enforcing Executive Order 11246, established in 1965)

a) Whenever no distinction is made between gender and ethnic grounds, answers cover both of them.

b) Country notes:

*Australia:* Australia is a federal state and in addition to the federal framework, each State and Territory of Australia has anti-discrimination legislation and an equal opportunity or anti-discrimination board and/or tribunal. However, once a complaint of unlawful discrimination is dealt with in one jurisdiction, it cannot be considered in another. More precisely: a person cannot make a complaint of discrimination with HREOC under federal legislation after they have made a complaint, instituted a proceeding or taken any other action under an analogous State or Territory law about the same events. This operates to prevent complainants 'double dipping' by making the same complaint in multiple jurisdictions and seeking multiple remedies for the same complaint.

*Austria:* employment of federal civil servants and employees is covered by the Federal Equal Treatment Act (enacted in 1993, last amended in 2004).

*Belgium:* the Federal State is responsible for regulating employment contracts and general rules of civil and criminal law. To the extent it takes the form of such rules, anti-discrimination legislation will therefore normally be dealt with at federal level. However, since these residual competences of the Federal State may not be exercised in order to intrude upon areas which are reserved to the Regions or Communities, they may not affect, in particular, the exclusive competence of the Regions and Communities to define the status of their personnel (public bodies and personnel of the governments); the exclusive competence of the Communities to define the status of schoolteachers and other personnel in the educational sector; or the exclusive competence of the Communities in the field of disability policy. All the federal entities – the Flemish Community/Region, the Region of Brussels-Capital, the Walloon Region, the French-speaking Community and the German-speaking Community – have taken various initiatives in the above mentioned areas, but the general rules are nevertheless laid down at federal level. (De Schutter, 2007).

*Canada:* main federal anti-discrimination law (federal jurisdiction). Canada is a federation and, under its Constitution, legislative and executive powers are conferred on two levels of government, which are each sovereign in their respective spheres. As a rule, labour law falls under the jurisdiction of the provinces and territories, except for certain sectors that belong to the federal jurisdiction. These sectors include the federal public service, the banking sector, the transportation sector and telecommunications. As a result, about 1.1 million of the roughly 15 million Canadian workers are covered by federal labour legislation, and the rest – roughly 93% – come under provincial and territorial jurisdiction, which each has their own labour and anti-discrimination laws and regimes. However, laws similar to the CHRA exist in all ten provinces and three territories. As a result, anti-discrimination provisions as established in the CHRA are fairly representative of the overall Canadian situation.

*Czech Republic:* legislation in force in 2007. An anti-discrimination law, implementing the EU Directives, is currently under preparation.

*Switzerland:* no specific equality bodies in charge of issues related to discrimination at the workplace against racial or ethnic minorities. However, the Federal Commission against Racism and the Service for Combating Racism may offer guidance and counselling to victims of discrimination. In addition, more specific equality bodies can be found in a small number of cantons.

*United Kingdom:* from 1 October 2007, the Commission for Equality and Human Rights (Equality and Human Rights Commission) takes on the role and functions of the Commission for Racial Equality (CRE), the Disability Rights Commission (DRC) and the Equal Opportunities Commission (EOC), with new responsibilities for sexual orientation, age, religion and belief, and human rights. The Arbitration, Conciliatory and Advisory Service is an independent service which impartially helps employers and employees to resolve disputes at work, through a formal procedure (form COT3), so that a hearing is not necessary. Typically, an ACAS conciliation officer's first involvement with a dispute will come after the complaint has already been made to the ET, although ACAS officers may be consulted earlier for advice with a view to achieving a resolution of the dispute. In addition, since the introduction of the Dispute Resolution Regulations which came into force on 1 October 2004, there are new compulsory procedures that all employers and employees must use in attempting to resolve issues of grievances (such as discrimination claims), disciplinary action and dismissal where a grievance is formalised. The purpose of their introduction was to encourage employment disputes to be resolved internally without the need for costly and time consuming employment tribunal claims.

*United States:* each of the 50 states, the District of Columbia, and Puerto Rico have separate laws addressing many of these same matters. Two states, Alabama and Mississippi, do not have EEO statutes covering gender or ethnicity. In addition, many counties, cities, and other local jurisdictions have laws or ordinances that prohibit gender and ethnicity discrimination. Some of these laws are similar to the federal law and some are different. Moreover, even where the laws are similar, state and local courts may interpret them differently from their federal counterpart.



**Table 3.A2.2. Selected studies estimating the impact of anti-discrimination laws in the United States**

	<b>Laws and identification strategy</b>	<b>Grounds, areas of concern and data</b>	<b>Estimation results</b>
Beller (1982)	Title VII of the 1964 Civil Rights Act Estimations rely on a legal variable defined as the expected costs of violating the law, which depend on the probability of apprehension for violating Title VII and the probability of paying a penalty if found violating it.	Gender, earnings and employment. CPS data, 1967, 1971 and 1974.	Title VII narrowed the sex differential in earnings by about 7 percentage points, and the sex differential in the probability of being employed in a male occupation by about 6 percentage points. The law's effect took time to materialise: it was stronger over the 1971-74 period than over 1967-71. (note: when the Civil Rights Act was strengthened in 1972, the EEOC was given the authority to initiate litigation on its own – until 1972, the EEOC was limited to merely a passive role)
Leonard (1984)	Title VII of the 1964 Civil Rights Act Estimations rely on a legal variable defined as the number of Title VII class action suits.	Ethnicity, employment. 555 state by two-digit SIC industry cells within manufacturing, with observations in both 1966 and 1978.	Over the 1966-78 period, Title VII litigation increased the share of black workers in total manufacturing employment by 3.4% (by 2.9% for black men and by 13% for black women) and the share of black workers in professional and managerial employment by 31.6%.
Chay (1998)	Equal Employment Opportunity Act of 1972, which extended Title VII coverage to employers with 15-24 employees (while leaving unaffected the civil rights protection for employees of larger firms).	Ethnicity, earnings and employment. CPS data aggregated into industry-by-region cells, 1973-79.	Over the 1973-79 period, black employment shares grew 0.5-1.1 points more per year and the black-white earnings gap narrowed, on average, 0.11-0.18 log points more at newly covered than at previously covered employers after the federal mandate.
Hahn <i>et al.</i> (1999)	Title VII of the 1964 Civil Rights Act The estimation methodology takes advantage of the fact that firms with fewer than 15 employees are not covered under the law.	Ethnicity, earnings. National Youth Longitudinal Survey, 1979-1993.	For two years in the panel used (1987 and 1991), Title VII coverage has a statistically significant positive effect on the employment of black and Hispanic workers. The magnitude of the estimated effects varies from 3 to 11% (depending on estimation methodologies and specifications), meaning that minorities' share of employment is 3-11 percentage points higher in firms covered under Title VII than in smaller firms not covered under the law.
Neumark and Stock (2006)	Gender anti-discrimination laws in force before the enactment of Title VII, primarily concerning equal pay without employment protection provisions. Racial anti-discrimination laws in force before the enactment of Title VII, prohibiting discrimination in hiring, dismissals, terms of employment, etc. The estimation methodology takes advantage of variation across states and time in the introduction of anti-discrimination law.	Gender, earnings and employment. CPS data, 1940-60.  Ethnicity, earnings and employment. CPS data, 1940-60 (men)	Equal pay laws decreased (by 2-6%) the relative employment of women. This effect was immediate and persistent over time. They also had a positive effect on relative earnings, which took time to materialise (about six years, the relative earnings growing by 0.34-0.26% per year after an immediate decrease following the enactment of state laws).  Anti-discrimination laws increased the relative earnings of black workers. This effect took time to materialise: relative earnings grew by 0.28% per year following the passage of state laws barring racial discrimination. These laws had no impact on the relative employment of black workers.

EEOC: Equal Employment Opportunity Commission.

**ANNEX 3.B**  
**CROSS-COUNTRY REGRESSION ANALYSIS OF GENDER GAPS**  
**METHODOLOGY AND DETAILED RESULTS**

**Regression-based decompositions of gender and ethnic wage gaps**

Possible sources of pay inequality between gender or ethnic groups are differences in human capital endowments and productivity-relevant characteristics (*e.g.* age, education and employment experience, but also less easily observed individual characteristics such as work motivation and effort) and differences in pay, “all other things equal”. In particular, differences in pay “all other things equal” reflect pay discrimination. Regression-based decomposition analysis tries to identify the different components of the wage gap between two groups using the method devised by Oaxaca (1973) and Blinder (1973).

The objective of the Oaxaca-Blinder decomposition of the wage gap is to identify the contribution of observed endowments and productive characteristics. To do this, one needs to know how much the labour market “pays” for such endowments and characteristics. Different approaches exist in the literature on how to estimate these remuneration rates. The original approach suggested by Oaxaca and Blinder is to use as a benchmark a wage regression estimated on one group (possibly the largest or the least likely to be affected by selectivity into employment and/or discrimination – *e.g.* men in the case of the gender wage gap). The estimated coefficients from the benchmark regression can be interpreted as the market price for the observed characteristics that would apply to both men and women *in the absence of discrimination*. The product of these coefficients and the average gender gaps in the corresponding variables leads to a simple decomposition of the differential between average hourly wages into a part due to gaps in observed characteristics and an unexplained residual. The latter reflects gender differences in unobserved characteristics and/or discriminatory wage-setting practices that are unrelated to individual productive characteristics. Formally, this decomposition can be written as:

$$\Delta \log \bar{W}_i = \Delta \bar{X}_i \beta_i + \Delta \bar{\varepsilon}_i,$$

where  $i$  indexes the unit of analysis (country and time or country, industry and time),  $\bar{\cdot}$  and  $\Delta$  refer to country/time (or country/industry/time) averages and gaps between men and women, respectively,  $W$  stands for gross hourly wages,  $X$  for the matrix of observable endowments and characteristics,  $\beta$  for the vector of estimated coefficients from the benchmark regressions and  $\varepsilon$  for the computed residuals from these regression coefficients (that is, the difference between actual and predicted values, the latter computed using the estimated coefficients from the estimated wage regression for the benchmark group).

Variations on this approach have been developed in the literature (see *e.g.* Altonji and Blank, 1999, Weichselbaumer and Winter-Ebmer, 2007, for references). Most of them concern the choice of benchmark equations and methods to use a weighted average of equations of both groups as benchmark. A few of them can provide additional light on geographical or time differences in the unexplained residual. In particular in the Juhn-Murphy-Pierce decomposition (Juhn *et al.* 1991), the difference between average unexplained residuals can be further decomposed under the extreme hypothesis that it can be entirely ascribed to differences in unobserved productive characteristics and in their remuneration. In this case,

geographical or time differences in remuneration rates for unobserved characteristics are estimated by assuming that they are fully reflected by differences between residual distributions of the benchmark group (that is assuming, in the case of the gender wage gap, that greater residual male wage dispersion reflects steeper returns to marketable characteristics). Then geographical or time differences in gaps in unobservable characteristics are obtained by subtraction. This approach is used by Blau and Kahn to underscore the role of institutions affecting the dispersion of wages in shaping the gender wage gap (see *e.g.* Blau and Kahn, 1996, 2000). However, it rules out discrimination by assumption.

## **Model specification for the analyses of the gender employment and wage gaps**

### ***Employment***

#### *Aggregate analysis*

The following simple linear regression model is estimated for the aggregate gender employment gap:

$$EG_{it} = \alpha PMR_{it} + X_{it}\beta + \mu_i + \lambda_t + \delta_i T + \varepsilon_{it}$$

where  $EG$ ,  $PMR$ , and  $X$  stand for the working-age population gender employment gap, product market regulation and a vector of control variables, respectively, while  $\mu$ ,  $\lambda$  and  $T$  stand for country  $i$  fixed effects, time  $t$  effects and (country-specific) time trends (that are included to control for the marked downward trend in both the employment gap and regulation),  $\alpha$  and  $\beta$  are parameters to be estimated and  $\varepsilon$  is a standard error term. In contrast to section 3.1, the analysis focuses here on the whole working-age population rather than prime-age workers only to maximise the length of time series. In certain specifications, import penetration is used as an alternative indicator of competition or as an additional control variable. In the analysis of ratification of international anti-discrimination conventions, qualitative or quantitative indexes of convention ratifications are added to the equation above (see below).

The gender gap in labour force participation and the aggregate employment rate are two key control variables that are systematically included in the specifications (except in sensitivity analyses that replicate results with no controls but fixed effects and trends), the former representing labour supply factors and the latter proxying the effect of aggregate labour demand (whose movements are likely to affect disproportionately groups that are at the margins of the labour market). Both of them are endogenous and the interpretation of their coefficient might be problematic. In particular, the coefficient of the participation gap might be overestimated to the extent that third factors might co-determine participation and employment gaps. For instance, lower opportunities for women in high-skilled/high-pay jobs (consistent with correspondence tests, see main text) could simultaneously reduce female employment and participation. However, as a first approximation, this might be regarded as a relatively minor problem insofar as it will leave a smaller share of the employment gap to be explained by other factors and, thus, will probably lead to an underestimate of the coefficients of these factors, including product market regulation. Conversely, even in an equation where total employment is included, insofar as product market regulation is likely to affect aggregate demand, its coefficient will probably capture the effect of regulatory reforms on labour demand and cannot be interpreted as yielding evidence on discrimination. To sort this problem out, the model above is estimated in two steps. First, the employment gap is regressed on the participation gap and the aggregate employment rate plus country and time effects and country-specific trends; second, the residual from the first step is then regressed on product market regulation, other controls and country and time effects and country-specific trends. The estimated effect of regulation can then be interpreted as its effect over and above its impact on aggregate demand. Only two-step estimates are reported, although differences from standard, single-step, OLS estimates are minor. Following Black and Lynch (2001) among others, first-step estimates are obtained on the largest possible sample, in order to maximise their efficiency, even though, depending on the specification, the second-step samples tend to be

smaller (however, the same results concerning product market regulation are obtained when the same sample is used for both the first and the second step).

Two other groups of controls deserve attention. First, structural shifts towards service sectors have modified labour demand, possibly increasing opportunities for women. As the indicator of product market regulation that is used here is based on regulation in non-manufacturing industries, one can expect that its estimated coefficient partially reflects this structural shift rather than its effect on discriminatory behaviours. For this reason, the service sector share – or, alternatively, the share of industries for which regulatory indicators are constructed – is included in most regression models. Second, deregulation in the product market, by reducing the size of rents, might reduce the bargaining power of insiders, thereby increasing opportunities for women who, being newcomers in the labour market, are more represented among outsiders. To control for this effect, a few of the equations include trade union density, whose time path can proxy the evolution of insiders' strength. In addition, most models include an interaction between the aggregate employment rate and the average degree of coverage of collective bargaining agreements over the sample period, which is expected to attract a negative sign since the effect of aggregate demand on the employment of disadvantaged groups is likely to be greater, the greater the bargaining power of insiders.

The regression analysis of the impact of product market regulation on the employment rate is performed on data concerning 21 OECD countries between 1975 and 2003 for Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, New Zealand, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States. Following OECD (2004, Chapter 2) and Bassanini and Duval (2006), in both the aggregate employment and wage gap analyses, observations for Germany, Finland and Sweden in 1991-1992 are excluded from the sample and additional country-specific dummies for the post-1992 period for these countries are included in order to capture the German reunification, the impact on the Finnish economy of the fall of the Soviet Union and the Swedish housing and banking crisis.

#### *Industry-level analysis*

The role of competitive pressures in shaping gender employment gaps is analysed also on the basis of industry-level data for 13 European countries and 16 manufacturing and non-manufacturing industries from 1992 to 2002. As regulatory indicators are available for 3 industries only at the available level of disaggregation (STAN standard classification, corresponding to 2 letters of the ISIC Rev.3 classification), it was not possible to replicate meaningfully the aggregate model using data on these three industries (see below). By contrast, following Griffith, Harrison and Simpson (2006), average profitability, defined as the ratio of output to intermediate input, labour and capital costs, is used here as a proxy for product market power (and therefore of lack of competition). Boone (2000) shows that this measure of (lack of) competition is preferable to most other commonly-used measures. It is more theoretically robust, particularly than those based on market concentration and market shares: it can be shown to be equivalent to the measure proposed by Roeger (1995), and is equivalent to the price-cost margin or mark-up under the assumption of constant returns to scale.

The estimated model can be written as:

$$EG_{ijt} = \alpha P_{ijt} + X_{ijt} \beta + \mu_{it} + \eta_j + \varepsilon_{it}$$

where  $P$  stands for average profitability of industry  $j$  in country  $i$  at time  $t$ ,  $X$  for a vector of controls defined at the country, time and industry level, while  $\mu$  and  $\eta$  captures country-by-time and industry fixed effects, the former controlling for all aggregate factors including determinants of labour market participation. To control for the overall labour demand of the industry, all specifications include the

logarithm of total employment in the industry and its interaction with the average degree of coverage of collective bargaining agreements. For the same reasons as above, equations are also estimated in two steps. First, the employment gap is regressed on all controls and fixed effects; second, the residual from the first step is regressed on profitability and fixed effects. Again, only the two-step estimates are reported. In contrast with the aggregate analysis, the employment gap is defined here simply as the difference between male and female prime-age employees as a percentage of male prime-age employment. In a number of estimates, industry-by-time effects are also included to control for industry-specific trends.

One problem with the use of average profitability indicators is that they might be endogenous. First, the time path of average price-cost margins might, in some rare cases, not reflect the dynamics of competition (Boone, 2008). Second, the empirical measure of profitability used is very crude. In both these cases, measurement error is likely to bias estimates towards zero. Third, the empirical measure, due to the way it is computed, might reflect investment in intangibles, such as expenditure in research & development (R&D) activities and training. Yet, R&D intensity and training in European countries have increased the most in non-manufacturing industries (OECD, 2007, Bassanini and Brunello, 2007) where also the greatest contraction of the employment gap was observed; therefore, one can expect a negative correlation between the accumulation of intangible capital and the gender employment gap. In all these three cases, the coefficient of profitability is likely to be downward biased or underestimate the effect of competition, making it therefore more difficult to find evidence of taste-based discrimination. Fourth, mark-ups appear to have a countercyclical behaviour. Whether this makes estimates based on profitability measures more informative or, conversely, induces a bias depends on whether the countercyclical patterns are due to the fact that competition increases in upturns for reasons unrelated to regulation, as the literature seems to suggest, or reflects other factors (see Oliveira Martins and Scarpetta, 2002, and the literature cited therein). Fifth and more problematic, if firms statistically discriminate on the basis of true stereotypes, one would expect prejudiced firms to make greater profits, and this would bias upwards the estimated coefficient of profitability, due to reverse causality.

While downward biases are a minor problem – they simply make it more difficult to establish evidence of discrimination when discrimination is present – upward biases are a matter of concern. To sort this problem out, one could look at regulatory reforms in the 3 industries for which data are available for all countries and years. However, the sample size would be very small in this case, and country-by-time dummies would sweep away the effect of a large number of reforms that are quasi-simultaneous in all the three industries. For this reason, and given that our data are limited to European countries, the alternative strategy suggested by Bassanini and Brunello (2007) is followed here – the latter takes advantage of the fact that nation-wide aspects of regulation are controlled for in specifications including country-by-time effects. The sample is restricted to a time period sufficiently remote from the implementation of the European Single Market Programme (SMP) in 1992 (starting in 1994 in countries that were EU members when the SMP came into action and in 1995 in countries that were EFTA members at that time). It is then further restricted to non-manufacturing industries for which regulation data are available and manufacturing industries where, as a first approximation, no change in industry-specific anti-competitive regulation can be assumed in the post-SMP period (yielding a total of 11 industries). Then the equation above is re-estimated using industry-specific regulation data, set to be equal to an arbitrary constant in manufacturing. It can be argued, however, that, although intra-European trade barriers were lifted by the implementation of the SMP, trade barriers still exist with respect to non-European countries. A further refinement of this strategy consists in exploiting the fact that EU trade policy is common to all EU member countries. The sample is therefore further reduced to EU members only (thus excluding Norway), for which there is no cross-country variation in sector-specific trade barriers, and equations are re-estimated by including industry-by-time dummies, that control for any trade barrier that varies only across industries and

over time.<sup>41</sup> Furthermore, in a sensitivity analysis on the same reduced sample, the equation above is re-estimated using an instrumental-variables approach where regulatory indicators are used as an instrument for profitability.

### **Wage**

For the wage gap analysis, Weichselbaumer and Winter Ebmer's meta-data (kindly provided by the authors) are matched with additional estimates of the unexplained wage-gap residual obtained for the purpose of this chapter in 13 European countries using ECHP data (see below). The resulting matched meta-dataset is restricted to OECD countries – that is to 1024 separate estimates of the wage gap in 20 OECD countries between 1975 and 2001. It is then analysed with the instruments of metadata, using a two-stage analysis. In a first stage the wage residual is regressed on meta-variables plus country-by-time fixed effects. The included meta-variables follow the preferred specification of Weichselbaumer and Winter Ebmer (2005) and are of essentially three categories: *i*) variables concerning data selection; *ii*) variables capturing econometric and decomposition methods; and *iii*) variables specifying the type of controls included in the regressions from which unexplained wage gap residuals were obtained. The objective of these meta-covariates is to make residual wage gaps comparable independently of methods, selection criteria and specifications. First-stage estimates of country-by-time effects represent therefore estimates of wage residuals that are comparable across countries and over time. Following Weichselbaumer and Winter Ebmer (2005), probability weights equal to the inverse of the number of estimates per country and year provided by each study are assigned to each observation. In a second stage, these estimated effects are regressed on policy covariates, weighting observations on the basis of first-stage variances of country-by-time effects. The second-stage specification takes the form:

$$W_{it} = \alpha PMR_{it} + X_{it}\beta + \mu_i + \lambda_t + \delta_i T + \varepsilon_{it}$$

where  $W$  represents first-stage country-by-time effects, while other symbols are as above. Controls include the logarithm of the relative employment rate and labour market institutions that could also capture wage dispersion (unfortunately OECD time series on wage dispersion are too patchy to be matched with wage residual data). In the analysis of ratification of international conventions, the quantitative index of convention ratifications only is included – since by 1975, the first year of the sample, most OECD countries had already ratified at least one ILO convention on discrimination, the qualitative index shows too little time variation to be used in the analysis. The final second-stage sample is strongly unbalanced with a total size of 188 observations. The use of a two-step estimation strategy is a major difference from Weichselbaumer and Winter Ebmer (2007), who estimate everything in one step. The reason to choose it here is that half of the studies in the sample concerning OECD countries are based on US data. As a consequence, with single-stage estimates, results will be driven by one single country. This is not the case in their paper since their sample also contains non-OECD countries.

Unexplained wage-gap residuals from ECHP data are obtained by applying the Oaxaca-Blinder decomposition (see above), using estimated male regression coefficients to identify returns to characteristics in the absence of discrimination. For each country and year, the logarithm of hourly wages of prime-age wage and salary male workers in the private sector, working at least 15 hours per week at the time of the survey, are regressed on a quadratic in potential experience, 3 levels of educational attainment,

---

41. It is important to observe here that, particularly in specifications where the sample is further restricted to EU countries only, most of the remaining regulatory changes affecting manufacturing industries – that is administrative regulation that is common to all industries in a country and tariff and non-tariff barriers that are industry-specific but common to all countries – are controlled for by country-by-time and industry-by-time dummies. In other words, in manufacturing, the correlation between profitability and employment gap should be interpreted as over and above the effect of these regulations.

five categories of firm size, a dummy for previous unemployment experience (plus a dummy for missing values as regards to previous unemployment experience), a dummy for part-time status, regional dummies and a spline in tenure (over the ranges 0-1 year, 1-3 years, 3-6 years, 6-9 years and 9-15 years), plus a dummy for tenure greater than 15 years and a dummy for non-reported tenure values.

The meta-analysis is performed on a strongly unbalanced sample concerning 20 OECD countries between 1975 and 2001 (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, the Netherlands, Norway, New Zealand, Portugal, Spain, Sweden, Switzerland, the United Kingdom, the United States). Since most OECD countries had already ratified at least one convention by 1975, due to the small number of country-by-time points before 1975 for which wage data are available, an analysis of wage gaps and the qualitative index of anti-discrimination convention ratification is not undertaken, in contrast with what done for the employment gap. The second-stage sample contains a maximum of 188 country-by-year observations. Due to the small sample size, results from this wage gap analysis must be taken with caution. To improve the reliability of estimates, a standard procedure to eliminate large outliers was used. First, the dependent variable was regressed on a time trend only and, within this “neutral” specification, outliers (that is observations with excessive deviation from a common time trend) were identified using the asymptotic Welsch-Kuh distance cutoff and the covariance ratio cutoff (see Chatterji and Hadi, 1988). Then second-stage specifications corresponding to the equation above were re-estimated excluding these outliers. This correction has a noteworthy impact on the coefficient of product market regulation.

### **Detailed estimation results**

Results on the aggregate effect of product market regulation are presented in Table 3.B.1. Industry-level results are presented in Table 3.B.2. Aggregate estimates are robust to a series of sensitivity exercises: *i*) estimating the specifications in first-differences ; *ii*) excluding time trends from the specifications ; *iii*) including the logarithm of import penetration as an additional covariate or as an alternative to regulatory indicators (the latter permitted to expand sample size to 28 countries) ; *iv*) excluding the labour market participation gap and total employment rate from the specifications, either altogether or one by one; *v*) including the gender gap in educational attainment (from Bassanini and Duval, 2006) ; *vi*) including the logarithm of average years of education (from Arnold, Bassanini and Scarpetta, 2007) ; *vii*) substituting the share of industries covered by the regulatory indicators for the share of total services ; and *viii*) including the output gap in the specifications. Main results are also robust to alternative specifications of the dependent variable such as the absolute gender difference in employment rates and the gender gap in non-employment rates. These results are not reported in Table 1, but are available from the Secretariat on request.

The analysis of the association between convention ratifications and the employment gap is performed on two unbalanced samples: an extended sample covering all countries and years for which data are available – including 28 countries from 1960 to 2003 (all OECD countries except Iceland and Luxembourg) – and a more restricted sample – 21 countries from 1975 to 2003 as above – where product market regulation indicators are available and a larger list of controls can be included. However, since most OECD countries had already ratified at least one convention by 1975, the analysis of the association of the qualitative index with the employment gap is not repeated in the restricted sample. Results from these experiments are presented in Table 3.B.3.

The dates of ratification of international conventions are potentially endogenous variables. In particular, countries might ratify anti-discrimination conventions when female presence in the labour market becomes important, so that *i*) women can lobby for the adoption of anti-discrimination legislation and *ii*) anti-discrimination legislation, being *de facto* less binding, attracts less opposition. As this is essentially a problem of reverse causality, Granger causality tests are performed to check that there is no

reverse causality bias. Performed on the 1960-2003 sample, they show evidence that indexes of convention ratifications Granger-cause the employment gap and, conversely, are not Granger-caused by it at conventional significance levels. These results are not reported in Table 3.B.3 but are available from the Secretariat on request.

Results from wage gap equations are presented in Table 3.B.4 and Table 3.B.5. To increase sample size, the EPL indicator has been set at its 1982 values for years preceding that date. Due to the small sample size, additional institutional variables included in the specification corresponding to the fourth and eight columns of Table 1 are not included in specifications in Tables 3.B.4 and 3.B.5.

The effect of product market regulation on the wage gap is robust to the inclusion of the employment gap (see Table 3.B.4). The reverse is also true: if the weighted average of available unexplained wage-gap residuals from different studies, corrected by meta control variables – that is the dependent variable used in the second stage of wage-gap equations presented in Table 4, is included in the employment gap equations, the estimated effect of regulation increases slightly, remaining significant at the 1% level. The estimated coefficient of the wage gap variable appears to be negatively sloped, as expected, although being generally insignificant.



Table 3.B.1 **Determinants of the gender employment gap**

Working-age population, 1975-2003

	No interactions				Including the interaction between collective bargaining coverage and total employment rate			
<b>First-stage estimates</b>								
Total employment rate (in percent)	-0.10*** [3.69]				-0.09*** [3.14]			
Gender gap in labour participation rates (in percent)	0.91*** [40.39]				0.91*** [38.80]			
Interaction between collective bargaining coverage and total employment rate					-0.01*** [4.10]			
Observations	698				664			
R-squared	0.997				0.997			
<b>Second stage estimates</b>								
<b>Product market regulation</b>	<b>1.09***</b> <b>[7.01]</b>	<b>0.87***</b> <b>[4.42]</b>	<b>0.87***</b> <b>[4.03]</b>	<b>1.06***</b> <b>[3.88]</b>	<b>1.14***</b> <b>[7.60]</b>	<b>0.94***</b> <b>[4.90]</b>	<b>0.97***</b> <b>[4.66]</b>	<b>1.26***</b> <b>[4.82]</b>
Share of services in GDP		-12.73*** [3.41]	-15.30*** [3.76]	-25.72*** [4.17]		-13.50*** [3.34]	-14.56*** [3.62]	-24.96*** [4.12]
Union density		0.06** [2.23]	0.08*** [2.69]	-0.02 [0.27]		0.06** [2.14]	0.08** [2.55]	-0.03 [0.44]
EPL index			-0.01 [0.02]	0.31 [0.69]			-0.03 [0.09]	0.41 [0.92]
High corporatism dummy			-0.61 [1.39]	0.94 [1.19]			-0.73* [1.67]	1.28* [1.72]
Tax wedge (couples)			-0.04* [1.7]	0.06 [0.94]			-0.04* [1.89]	0.07 [1.03]
Average benefit replacement rate			-0.00 [0.12]	0.10** [2.38]			0.00 [0.18]	0.11*** [2.61]
Leave weeks				-0.00 [0.70]				-0.00 [0.75]
Relative marginal tax rate on the second earner				1.55** [2.45]				1.29** [2.08]
Tax incentives to work part-time				0.10 [1.47]				0.10 [1.47]
Family cash benefits				-0.18** [2.03]				-0.14* [1.67]
Observations	602	436	414	244	573	414	414	244
R-squared	0.198	0.377	0.393	0.585	0.209	0.362	0.376	0.598
Country dummies	yes				yes			
Time dummies	yes				yes			
Country-specific time trends	yes				yes			

Notes: In the first stage the dependent variable is the gender employment gap (in percentages) in the working-age population and specifications include variables indicated in the top panel plus country dummies, time dummies and country-specific time trends. In the second stage, the residual from the first stage is regressed on variables in the bottom panel plus country dummies, time dummies and country-specific time trends. Product market regulation theoretically varies between 0 and 6 from the least to the most regulated. Observations and R-squared statistics at the bottom of each panel refer to either the first stage (top panel) or the second stage (bottom panel). First-stage estimates are based on the largest possible sample including the same countries, which implies that: a) observations are not the same in the two stages; and b) several second-stage estimates share the same first stage. In interactions, variables are defined as deviations from the sample mean, to preserve comparability of coefficients of non-interacted variables. Robust t statistics in brackets. \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Source: OECD estimates.

Table 3.B.2 The effect of competition and regulation on industry-level gender employment gaps

Prime-age workers, 1992-2002

Second stage estimates	Largest sample		Reduced sample				Reduced sample (excluding Norway)	
	Profitability	30.99*** [3.05]	31.81*** [2.73]	19.64** [2.47]		22.82*** [2.84]		16.84* [1.837]
Product market regulation				2.10*** [2.73]		1.89** [2.11]		3.16*** [3.71]
Basic controls	yes	yes	yes	yes	yes	yes	yes	yes
Extended controls	no	yes	no	no	yes	yes	yes	yes
Country by year dummies	yes	yes	yes	yes	yes	yes	yes	yes
Industry dummies	yes	yes	yes	yes	yes	yes	yes	yes
Industry by year dummies	no	yes	no	no	yes	yes	yes	yes
Observations	1,828	1,670	1,053	1,166	998	1,089	921	1,012
R-squared (second-stage)	0.02	0.02	0.11	0.10	0.11	0.11	0.12	0.13
Difference in the impact of profitability between manufacturing and non-manufacturing	2.54 [0.11]	3.25 [2.57]	-0.60 [0.03]	..	5.37 [0.21]	..	43.63 [1.61]	..

Notes: In the first stage, the dependent variable is the gender wage and salary employment gap (in percentages) in the population aged between 25 and 54 years. In the second stage, the residual from the first stage is regressed on variables presented in the table plus country dummies, time dummies and country-specific time trends. Profitability is defined as the ratio of output to intermediate input, labour and capital costs, and varies between .94 and 1.79 in the sample. Product market regulation varies between 0 and 6 from the least to the most regulated. Basic controls are the logarithm of total employment in the industry and its interaction with the average coverage of collective agreements. Extended controls include: the share of employees aged between 45 and 54 years, the share of employees with more than upper secondary education, the share of part-time employees and the share of employees working in firms with 10 employees or less. Observations and R-squared statistics refer to the second stage. The largest sample is an unbalanced sample including 8 manufacturing and 8 non-manufacturing industries in Norway and pre-enlargement EU countries, excluding Greece, Luxembourg and Sweden, from 1992 to 2002. The reduced sample is an unbalanced sample including 8 manufacturing and 3 non-manufacturing industries in the same countries from 1994 to 2002, except for Austria, Finland and Norway, where the sample is further restricted to 1995-2002. The last line of the table reports for each column, the coefficient difference between manufacturing and non-manufacturing for variants of the same specifications in which the coefficient of profitability is allowed to vary across groups of industries. This test is not available for specifications with regulatory indicators since the latter are set equal to an arbitrary constant in manufacturing. Robust t statistics in brackets. \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

*Interpretation:* The table shows that a 1 point fall in anti-competitive regulation (almost corresponding to the difference between the OECD average and the least regulated country in 2002) would decrease the employment gap by between 0.9 and 1.9 percentage points. Similarly, a 0.04 increase in profitability (corresponding to the average increase in profitability between 1992 and 2002 in the sample) would increase the gender employment gap by between 0.7 and 1.3 percentage points.

Source: OECD estimates.



Table 3.B.4 **Determinants of the logarithm of the gender wage gap**

Meta-analysis of the unexplained wage gap residual, 1975-2001

	No control for outliers				Excluding outliers			
<b>Second stage estimates</b>								
Product market regulation	<b>0.059**</b> [2.52]	<b>0.066***</b> [2.79]	<b>0.068***</b> [2.85]	<b>0.056**</b> [2.11]	<b>0.032*</b> [1.82]	<b>0.038**</b> [2.18]	<b>0.041**</b> [2.27]	<b>0.034*</b> [1.70]
EPL index		-0.072* [1.78]	-0.070* [1.74]	-0.076* [1.81]		-0.064** [2.15]	-0.063** [2.10]	-0.060* [1.93]
Log gender employment gap			-0.233 [0.67]	-0.345 [0.72]			-0.199 [0.78]	-0.452 [1.25]
Average benefit replacement rate				-0.001 [0.44]				0 [0.07]
High corporatism dummy				0.014 [0.28]				0.025 [0.67]
Tax wedge (couples)				0.001 [0.22]				0.002 [0.65]
Union density				0 [0.11]				0 [0.10]
Country dummies	yes	yes	yes	yes	yes	yes	yes	yes
Time dummies	yes	yes	yes	yes	yes	yes	yes	yes
Country-specific time trends	yes	yes	yes	yes	yes	yes	yes	yes
Observations	188	188	188	180	185	185	185	177
R-squared	0.735	0.742	0.743	0.739	0.79	0.798	0.799	0.782

Notes: In the first stage the dependent variable is the unexplained residual of gender wage gap obtained in various studies through regression-based decompositions and co-variables includes country-year fixed effects plus meta-variables capturing regression and decomposition methods, selection criteria and specifications (in first-stage regressions, probability weights equal to the inverse of the number of estimates per country and year provided by each study are assigned to each observation). In the second stage, the country-year fixed effects from the first stage are regressed on the variables in the bottom panel plus country dummies, time dummies and country-specific time trends (observations are weighted by the inverse of their first-stage variances). Product market regulation theoretically varies between 0 and 6 from the least to the most regulated. Observations and R-squared statistics refer to the second stage. 3 outliers have been identified applying the asymptotic Welsch-Kuh distance cut-off and the covariance ratio cut-off to a regression of the second-stage dependent variable on a linear trend. Robust t statistics in brackets. \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Source: OECD estimates.

Table 3.B.5 **Ratification of anti-discrimination conventions and the gender wage gap**  
 Meta-analysis of the unexplained wage gap residual, 1975-2001

	No control for outliers			Excluding outliers		
<b>Second stage estimates</b>						
Anti-discrimination conventions (quantitative index)	-0.071** [2.19]	-0.065** [2.02]	-0.070** [2.13]	-0.050** [2.05]	-0.044* [1.82]	-0.047* [1.94]
Work ban conventions			0.014 [0.54]			0.010 [0.52]
Product market regulation	0.066*** [2.81]	0.071*** [3.03]	0.072*** [2.94]	0.037** [2.10]	0.042** [2.39]	0.043** [2.36]
EPL index		-0.063 [1.57]	-0.062 [1.53]		-0.057* [1.94]	-0.056* [1.88]
Log gender employment gap			-0.276 [0.78]			-0.228 [0.87]
Country dummies	yes	yes	yes	yes	yes	yes
Time dummies	yes	yes	yes	yes	yes	yes
Country-specific time trends	yes	yes	yes	yes	yes	yes
Observations	188	188	188	185	185	185
R-squared	0.745	0.75	0.753	0.797	0.803	0.805

Note: See Table 3.B.4. Robust t statistics in brackets. \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

Source: OECD estimates.

## ANNEX 3.C SUPPLEMENTARY FIGURES

Figure 3.C.1 Average gender wage gap and employment rate gap for prime age, by education, 2001

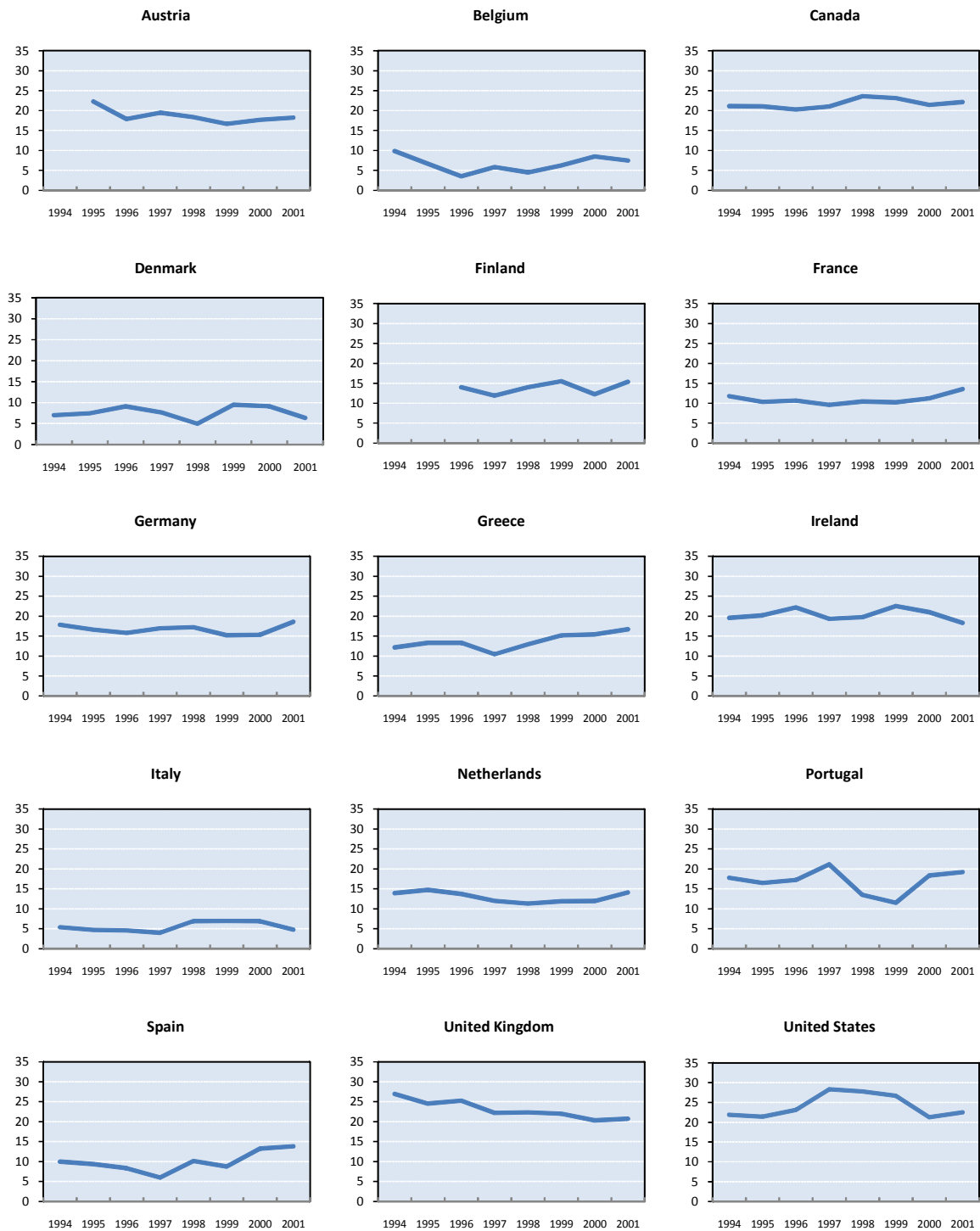


*Note:* Data refer to 2000 for Sweden.

*Source:* See below.

Figure 3.C.2. Trends in median gender wage gaps for prime age workers, 1994-2001

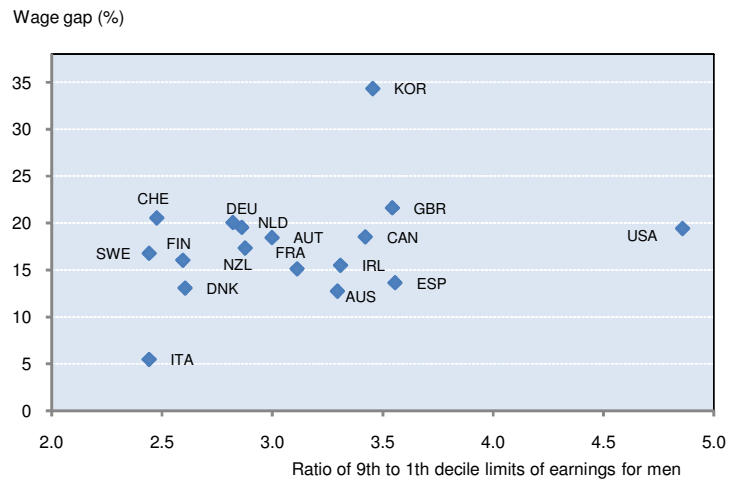
Percentages



Source: See below.

Figure 3.C.3 Wage dispersion and the average gender wage gap

Gender wage gaps and ratio of 9th to 1th decile for men in 2001<sup>a</sup>



a) For earnings dispersion, data refer to 2004 for Australia, 2002 for France, Spain and Switzerland, 2000 for Ireland, 1996 for Italy and 1999 for Korea.

Source: Earnings dispersion: OECD database on Earnings Distribution; Wage gap: see below.



## BIBLIOGRAPHY

- ACAS (2006a), “Back to Basics. ACAS’ Experience of Equality and Diversity in the Workplace”, ACAS Policy Discussion Paper No. 5, Advisory, Conciliation and Arbitration Service, London, November.
- ACAS (2006b), “New Rules, New Challenges: ACAS’ Role in the Employment Tribunal System”, ACAS Policy Discussion Paper No. 3, Advisory, Conciliation and Arbitration Service, London, April.
- Aghion P, *et al.* (2005) Competition and Innovation: An Inverted U Relationship, *Quarterly Journal of Economics*, Vol. 117, pp. 701-772.
- Aigner, D.J. and G.G. Cain (1977), “Statistical Theories of Discrimination in Labor Markets”, *Industrial and Labor Relations Review*, Vol. 30, No. 2, pp. 175-187.
- Allasino, E. *et al.* (2004), “Labour Market Discrimination against Migrant Workers in Italy”, ILO International Migration Paper No. 67, ILO, Geneva.
- Altonji, J. and R. Blank (1999), “Race and Gender in the Labor Market”, in C. Ashenfelter and D. Card (eds.), *Handbook of Labor Economics*, Vol. 3C, Amsterdam: North-Holland.
- Altonji, J. and C. Pierret (2001), “Employer Learning and Statistical Discrimination”, *Quarterly Journal of Economics*, Vol. 116, pp. 313-350.
- Amadiou, J.-F. (2004), “Enquête Testing sur CV”, Adia/Paris I, Observatoire des discriminations.
- Amadiou, J.-F. (2005), “Discriminations à l’embauche: De l’envoi du CV à l’entretien”, Adia/Paris I, Observatoire des discriminations.
- Amadiou, J.-F. (2007), “Synthèse du test du recrutement réalisé à la demande de la HALDE”, Adia/Paris I, Observatoire des discriminations.
- Arnold, J., A. Bassanini and S. Scarpetta (2007), Solow or Lucas, “Testing growth models using panel data from OECD countries”, *OECD Economics Department Working Paper* No. 582.
- Arriijn, P. *et al.* (1998), “Discrimination in Access to Employment on Grounds of Foreign Origin: The Case of Belgium”, ILO International Migration Paper No. 23, ILO, Geneva.
- Arrow, K.J. (1973), “The Theory of Discrimination”, in O.C. Ashenfelter and A. Rees (eds.), *Discrimination in Labor Markets*, Princeton University Press, Princeton.
- Ashenfelter, O. and T. Hannan (1986), “Sex Discrimination and Product Market Competition: The Case of the Banking Industry”, *Quarterly Journal of Economics*, Vol. 101, pp. 149-173.
- Åslund, O. and O. Nordström Skans (2007), “Do Anonymous Job Application Procedures Level the Playing Field?”, IFAU Working Paper No. 2007:31, Institute for Labour Market Policy Evaluation, Sweden.
- Autor, D. (2001), “Why Do Temporary Help Firms Provide Free General Skills?”, *Quarterly Journal of Economics*, Vol. 116, No. 4, pp. 1409-1448.

- Bassanini, A., and G. Brunello (2007), “Barriers to Entry, Deregulation and Workplace Training”, *IZA Discussion Paper* No. 2746.
- Bassanini, A., and R. Duval (2006), “Employment Patterns in OECD Countries: Reassessing the Role of Policies and Institutions”, *OECD Social, Employment and Migration Working Paper* No. 35.
- Bayard, K. *et al.* (2003), “New Evidence on Sex Segregation and Sex Differences in Wages from Matched Employee-Employer Data”, *Journal of Labor Economics*, Vol. 21, No. 4, pp. 887-922.
- Becker, G.S. (1957, 1971 – 2<sup>nd</sup> edition), *The Economics of Discrimination*, University of Chicago Press, Chicago and London.
- Beller, A. (1982), “The Impact of Equal Opportunity Policy on Sex Differentials in Earnings and Employment”, *American Economic Review*, Vol. 72, No. 2, pp. 171-175.
- Bendick, M. (1998), “Adding Testing to the Nation’s Portfolio of Information on Employment Discrimination”, in M. Fix and M.A. Turner (eds.), *A National Report Card on Discrimination in America: The Role of Testing*, The Urban Institute, Washington, D.C.
- Bertrand, M. and S. Mullainathan (2004), “Are Emily and Greg More Employable Than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination”, *American Economic Review*, Vol. 95, No. 1, pp. 991-1013.
- Bettio, F. (2002), “The Pros and Cons of Occupational Gender Segregation in Europe”, *Canadian Public Policy*, Vol. 28, pp. S65-S84.
- Black, D. (1995), “Discrimination in an Equilibrium Search Model”, *Journal of Labor Economics*, Vol. 13, No. 2, pp. 309-334.
- Black, S.E. and E. Brainerd (2004), “Importing Equality? The Effects of Globalization on Gender Discrimination”, *Industrial and Labor Relations Review*, Vol. 57, No. 4, pp. 540-559.
- Black, S.E. and P. Strahan (2001), “The Division of Spoils: Rent Sharing and Discrimination in a Regulated Industry”, *American Economic Review*, Vol. 91, No. 4, pp. 814-831.
- Black, S.E., and L. Lynch (2001), “How to Compete: The Impact of Workplace Practices and Information Technology on Productivity”, *Review of Economics and Statistics*, Vol. 83(3), pp. 434-445.
- Black, S.E., P.J. Devereux and K.G. Salvanes (2005), “Why the Apple Doesn't Fall Far: Understanding Intergenerational Transmission of Human Capital”, *American Economic Review*, Vol. 95, No. 1, pp. 437-449.
- Blank, R. (2005), “Tracing the Economic Impact of Cumulative Discrimination”, *American Economic Review*, Vol. 95, No. 2, pp. 99-103.
- Blau, F.D. and L.M. Kahn (1996), “International Differences in Male Wage Inequality: Institutions versus Market Forces”, *Journal of Political Economy*, Vol. 104, pp. 791-837.
- Blau, F.D. and L.M. Kahn (2000), “Gender Differences in Pay”, *Journal of Economic Perspectives*, Vol. 14, No. 4, pp. 75-99.

- Blau, F.D. and L.M. Kahn (2003), "Understanding International Differences in the Gender Pay Gap", *Journal of Labor Economics*, Vol. 21, No. 1, pp. 106-144.
- Blau, F.D. and L.M. Kahn (2007), "The Gender Pay Gap", *The Economists' Voice*, Vol. 4, No. 4, Article 5, available at [www.bepress.com/ev/vol4/iss4/art5](http://www.bepress.com/ev/vol4/iss4/art5)
- Blinder, A.S. (1973), Wage discrimination: Reduced form and structural estimates, *Journal of Human Resources*, Vol. 8(4), 436-55.
- Boone, J. (2000), Competition, *CEPR Discussion Paper No. 2636*.
- Boone, J. (2008), "A New Way to Measure Competition", *Economic Journal*, forthcoming.
- Bovenberg, L. (2007), "Comments to Weichselbaumer and Winter-Ebmer", *Economic Policy*, Vol. 22, pp. 274-278.
- Bovenkerk, F. *et al.* (1994), "Discrimination against Migrant Workers and Ethnic Minorities in Access to Employment in the Netherlands", ILO International Migration Paper No. 4, ILO, Geneva.
- Bowles, S., H. Gintis and M. Osborne (2001), "The Determinants of Earnings: A Behavioural Approach", *Journal of Economic Literature*, Vol. 39, pp. 1137-1176.
- Burstein, P. (1989), "Attacking Sex Discrimination in the Labor Market: A Study in Law and Politics", *Social Forces*, Vol. 67, pp. 641-665.
- Carlsson, M. (2007), "Sex Discrimination and Segregation in the Swedish Labour Market: A Field Experiment", unpublished manuscript, Kalmar University College, Sweden.
- Carlsson, M. and D.-O. Rooth (2007), "Evidence of Ethnic Discrimination in the Swedish Labor Market Using Experimental Data", *Labour Economics*, Vol. 14, pp. 716-729.
- Cediey, E. and F. Foroni (2007), "Les Discriminations à raison de 'l'origine' dans les embauches en France: Une enquête nationale par tests de discrimination selon la méthode du BIT", ILO, Geneva.
- CGB (2004), "Commentary of the Netherlands' Equal Treatment Commission on the Fifteenth and Sixteenth Periodic Report of the Kingdom of the Netherlands on the Implementation of the CERD", Commissie Gelijke Behandeling, Utrecht, available at [www.cgb.nl/\\_media/downloadables/advies%202004%2002%20\(EN\).pdf](http://www.cgb.nl/_media/downloadables/advies%202004%2002%20(EN).pdf)
- Chay, K. (1998), "The Impact of Federal Civil Rights Policy on Black Economic Progress: Evidence from the Equal Employment Opportunity Act of 1972", *Industrial and Labor Relations Review*, Vol. 51, No. 4, pp. 608-632.
- Chevalier, A. (2007), "Education, Occupation and Career Expectations: Determinants of the Gender Pay Gap for UK Graduates", *Oxford Bulletin of Economics and Statistics*, Vol. 69, No. 6, pp. 819-842.
- CHRC (2000), *Annual Report*, Canadian Human Rights Commission, available at [www.chrc-ccdp.ca/publications/2000\\_ar/page16-en.asp](http://www.chrc-ccdp.ca/publications/2000_ar/page16-en.asp)
- CHRC (2006), *Annual Report*, Canadian Human Rights Commission, available at [www.chrc-ccdp.ca/pdf/ar\\_2006\\_ra\\_en.pdf](http://www.chrc-ccdp.ca/pdf/ar_2006_ra_en.pdf)

- Coleman, M.G. (2002), "Contesting the Magic of the Marketplace: Black Employment and Business Concentration in the Urban Context", *Urban Studies*, Vol. 39, pp. 1793-1818.
- Coleman, M.G. (2004), "Racial Discrimination in the Workplace: Does Market Structure Make a Difference?", *Industrial Relations*, Vol. 43, No. 3, pp. 660-689.
- Conway, P. *et al.* (2006), "Regulation, Competition, and Productivity Convergence", OECD Economics Department Working Paper No. 509, OECD, Paris.
- Currie, J. and E. Moretti (2003), "Mother's Education And The Intergenerational Transmission of Human Capital: Evidence from College Openings", *Quarterly Journal of Economics*, Vol. 118, No. 4, pp. 1495-1532.
- Datta Gupta, N. and D.S. Rothstein (2005), "The Impact of Worker and Establishment-level Characteristics on Male-female Wage Differentials: Evidence from Danish Matched Employee-employer Data", *Labour*, Vol. 19, No. 1, pp. 1-34.
- De Prada, A.M. *et al.* (1996), "Labour Market Discrimination against Migrant Workers in Spain", ILO International Migration Paper No. 9, ILO, Geneva.
- De Schutter, O. (2003), "Methods of Proof in the Context of combating Discrimination", in J. Cormack (eds), *Proving Discrimination, the Dynamic Implementation of EU Antidiscrimination Law: the Role of Specialised Bodies*, Equinet, Brussels.
- Depken, C.A. and J.M. Ford (2006), "Customer-based Discrimination against Major League Baseball Players: Additional Evidence from All-star Ballots", *Journal of Socio-Economics*, Vol. 35, pp. 1061-1077.
- Donohue, J. (2005), "The Law and Economics of Antidiscrimination Law", Yale Law School, John M. Olin Center for Studies in Law, Economics, and Public Policy, Working Paper No. 290.
- Donohue, J. and J. Heckman (1991), "Continuous Versus Episodic Change: The Impact of Civil Rights Policy on the Economic Status of Blacks", *Journal of Economic Literature*, Vol. 29, No. 4, pp. 1603-1643.
- Donohue, J. and P. Siegelman (2005), "The Evolution of Employment Discrimination Law in the 1990s: A Preliminary Empirical Investigation", in L. Nielsen and R. Nelson (eds.), *Handbook of Employment Discrimination*, Springer, Dordrecht.
- Duguet, E. *et al.* (2007), "Les jeunes français issus de l'immigration font-ils l'objet d'une discrimination à l'embauche? Une évaluation expérimentale sur la région Ile de France", EPEE Working Paper No. 07-09, Université d'Evry.
- EEOC (2008), "Charge Statistics FY 1997 Through FY 2007", US Equal Employment Opportunity Commission, available at [www.eeoc.gov/stats/charges.html](http://www.eeoc.gov/stats/charges.html)
- Eriksson, S. and J. Lagerström (2007), "Detecting Discrimination in the Hiring Process: Evidence from an Internet-based Search Channel", IFAU Working Paper No. 2007:19, Institute for Labour Market Policy Evaluation, Sweden.
- Esmail, A. and S. Everington (1993), "Racial Discrimination against Doctors from Ethnic Minorities", *British Medical Journal*, Vol. 306, pp. 691-692.

- Esmail, A. and S. Everington (1997), "Asian Doctors Are still Being Discriminated Against", *British Medical Journal*, Vol. 314, p. 1619.
- European Commission (2007a), "Tackling the Pay Gap between Women and Men", Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions.
- European Commission (2007b), *Discrimination in the European Union*, Special Eurobarometer 263, Wave 65.4.
- Firth, M. (1981), "Racial Discrimination in the British Labour Market", *Industrial and Labor Relations Review*, Vol. 34, pp. 265-272.
- Freedman, S. (2002), *Discrimination Law*, Oxford University Press, Oxford.
- Fryer, R. and G. Loury (2005), "Affirmative Action and Its Mythology", *Journal of Economic Perspectives*, Vol. 19, No. 3, pp. 1-15.
- Goldberg, A. et al. (1995), "Labour Market Discrimination against Foreign Workers in Germany", ILO International Migration Paper, No. 7, ILO, Geneva.
- Goldin, C. and C. Rouse (2000), "Orchestrating Impartiality: The Impact of 'Blind' Auditions on Female Musicians", *American Economic Review*, Vol. 90, No. 4, pp. 715-741.
- Griffith, R., R. Harrison and H. Simpson (2006), "Product market reform and innovation in the EU", *CEPR Discussion Paper* No. 5849.
- Groshen, E. (1991), "The Structure of the Female/Male Wage Differential: Is It Who You Are, What You Do or Where You Work?", *Journal of Human Resources*, Vol. 26, No. 3, pp. 457-472.
- Hahn, J., Todd, P. and W. van der Klaauw (1999), "Evaluating the Effect of an Antidiscrimination Law using a Regression-Discontinuity Design", NBER Working Paper No. 7131, National Bureau of Economic Research, Cambridge.
- Havinga, T. (2002), "The Effects and Limits of Anti-discrimination Law in the Netherlands", *International Journal of the Sociology of Law*, Vol. 30, pp. 75-90.
- Heath, A.F., S.Y. Cheung and S.N. Smith (eds.), "Unequal Chances: Ethnic Minorities in Western Labour Markets", *Proceedings of the British Academy*, Vol. 137, Oxford University Press, Oxford.
- Heckman, J.J. (1998), "Detecting Discrimination", *Journal of Economic Perspectives*, Vol. 12, No. 2, pp. 101-116.
- Heinze, A. and E. Wolf (2006), "Gender Earnings Gap in German Firms: The Impact of Firm Characteristics and Institutions", ZEW Discussion Paper, No.06-020, Center for European Economic Research, Mannheim.
- Hellerstein, J.K. and D. Neumark (1999), "Sex, Wages, and Productivity: An Empirical Analysis of Israeli Firm-Level Data", *International Economic Review*, Vol. 40, No. 1, pp. 95-123.

- Hellerstein, J.K., D. Neumark and K. Troske (1999), “Wages, Productivity, and Worker Characteristics: Evidence from Plant-Level Production Functions and Wage Equations”, *Journal of Labor Economics*, Vol. 17, No. 3, pp. 409-446.
- Hellerstein, J.K., D. Neumark and K. Troske (2002), “Market Forces and Sex Discrimination”, *Journal of Human Resources*, Vol. 37, No. 2, pp. 353-380.
- Heywood, J.S. and J.H. Peoples (1994), “Deregulation and the Prevalence of Black Truck Drivers”, *Journal of Law and Economics*, Vol. 37, No. 1, pp. 133-155.
- Hjarnø, J. and T. Jensen (1997), “Diskrimineringen af unge med indvandrerbaggrund ved jobsøgning”, Danish Center for Migration and Ethnic Studies Migration Paper No. 21.
- Holmaat, R. (2007), *Report on Measures to Combat Discrimination – The Netherlands*, European Network of Legal Experts in the Non-Discrimination Field, European Commission.
- Holzer, H.J. and K.R. Ihlanfeldt (1998), “Customer Discrimination and Employment Outcomes for Minority Workers”, *Quarterly Journal of Economics*, Vol. 113, pp. 835-867.
- Ihlanfeldt, K.R. and M. Young (1994), “Intrametropolitan Variation in Wage Rates: The Case of Atlanta Fast-Food Restaurant Workers”, *Review of Economics and Statistics*, Vol. 76, pp. 425-433.
- Jolliffe, D. and N.F. Campos (2005), “Does Market Liberalisation Reduce Gender Discrimination?” Econometric Evidence from Hungary, 1986-1998”, *Labour Economics*, Vol. 12, No. 1, pp. 1-22.
- Juhn, C., K.M. Murphy and P., Brooks (1991), “Accounting for the Slowdown in Black-White Wage Convergence”, in M.H. Koster (eds.), *Workers and Their Wages*, Washington DC: AEI
- Kenney, G.M., and D.A. Wissoker (1994), “An Analysis of the Correlates of Discrimination Facing Young Hispanic Job-Seekers”, *American Economic Review*, Vol. 84, No. 3, pp. 674-683.
- Keppler, M. (2003), “The EEOC’s Alternative Dispute Resolution Program: A More Civil Approach to Civil Rights Disputes”, *Review of Business*, Winter.
- Leonard, J. (1984), “Antidiscrimination or Reverse Discrimination: The Impact of Changing Demographics, Title VII, and Affirmative Action on Productivity”, *The Journal of Human Resources*, Vol. 19, No. 2, pp. 145-174.
- Lewis, T. (2008), “How to Use the Questionnaire Procedure in All Cases of Discrimination in Employment”, 2<sup>nd</sup> Edition, Central London Law Centre, available at [www.equalityhumanrights.com/en/foradvisers/takingtotribunal/pages/casesresources.aspx](http://www.equalityhumanrights.com/en/foradvisers/takingtotribunal/pages/casesresources.aspx)
- Liggett, M. (1969), “The Efficacy of State Fair Employment Practices Commissions”, *Industrial and Labor Relations Review*, Vol. 22, No. 4, pp. 559-567.
- Malheiros, M. (2007), *Report on Measures to Combat Discrimination –Portugal*, European Network of Legal Experts in the Non-Discrimination Field, European Commission.
- McDermott, P., R. Obar, A. Jose and M. Bowers (2000), “An Evaluation of the Equal Employment Opportunity Commission Mediation Program”, EEOC Order No. 9/0900/7632/2, Equal Employment Opportunity Commission, Washington, D.C.

- MIPEX (2007), “Migrant Integration Policy Index – Full Result Table”, British Council and Migration Policy Group, Brussels, available at [www.integrationindex.eu/multiattachments/2704.html](http://www.integrationindex.eu/multiattachments/2704.html)
- Neumark, D. and W. Stock (2006), “The Labour Market Effects of Sex and Race Discrimination Laws”, *Economic Inquiry*, Vol. 44, No. 3, July, pp. 385-419.
- Niessen, J. (2003), “Making the Law Work. The Enforcement and Implementation of Anti-Discrimination Legislation”, *European Journal of Migration and Law*, Vol. 5, pp. 249-257.
- Niessen, J. and J. Cormack (2004), “National Specialised Equality Bodies in the Wake of the EC antidiscrimination Directives”, in J. Cormack (eds), *Consideration for Establishing Single Equality Bodies and Integrated Equality Legislation*, Report of the Seventh Experts’ Meeting, Hosted by the Equality Commission for Northern Ireland, 17-18 June.
- Nunes, A. and B. Seligman (1999), “Treatment of Caucasian and African-American Applicants by San Francisco Bay Area Employment Agencies: Results of a Study Utilizing ‘testers’”, The Testing Project of the Impact Fund, Impact Fund, San Francisco.
- O’Cinneide, C. (2002), “A Single Equality Body: Lessons from abroad”, Working Paper No. 4, University College, London.
- O’Hare, U. (2001), “Enhancing European Equality Rights: a New Regional Framework”, *Maastricht Journal of European and Comparative Law*, Vol. 8, pp. 144-165.
- Oaxaca, R. (1973), “Male–female wage differentials in urban labor markets”, *International Economic Review*, Vol. 14, pp. 693–709.
- OECD (2002), *Employment Outlook*, OECD, Paris.
- OECD (2004), *Employment Outlook*, OECD, Paris
- OECD (2006a), *Live Longer, Work Longer: A Synthesis Report*, OECD, Paris.
- OECD (2006b), *Sickness, Disability and Work. Breaking the Barriers (Vol. 1): Norway, Poland and Switzerland*, OECD, Paris.
- OECD (2007), *Science, Technology and Industry Scoreboard*, OECD, Paris
- OECD (2007a), *International Migration Outlook*, OECD, Paris.
- OECD (2007b), *Sickness, Disability and Work. Breaking the Barriers (Vol. 2): Australia, Luxembourg, Spain and the United Kingdom*, OECD, Paris.
- OECD (2007c), *Jobs for Immigrants. Vol. 1: Labour Market Integration in Australia, Denmark, Germany and Sweden*, OECD, Paris.
- OECD (2007d), *Babies and bosses. Reconciling Work and Family Life. A Synthesis of Findings for OECD Countries*, OECD, Paris.
- OECD (2007e), *Employment Outlook*, OECD, Paris.
- OECD (2007f), *Education at a Glance – OECD Indicators*, OECD, Paris.

- OECD (2008), *Employment Outlook*, OECD, Paris
- OECD (2008b), *A Profile of Immigrants in the 21st Century: Data From OECD Countries*, OECD, Paris.
- OECD (2008c), “The Price of Prejudice: Labour Market Discrimination on the Grounds of Gender and Ethnicity. Technical Annex on Legislation”, available online at [www.oecd.org/els/employmentoutlook/2008](http://www.oecd.org/els/employmentoutlook/2008).
- Oliveira-Martins, J., and S. Scarpetta (2002), “Estimation of the cyclical behaviour of mark-ups: a technical note”, *OECD Economic Studies* No. 34(1), pp. 173-188.
- Olivetti, C. and B. Petrongolo (2006), “Unequal Pay or Unequal Employment? A Cross-country Analysis of Gender Gaps”, CEPR Discussion Paper No. 5506, Centre for Economic Policy Research, London.
- Oyer, P. and S. Schaefer (2002), “Sorting, Quotas, and the Civil Rights Act of 1991: Who Hires When It’s Hard to Fire?”, *Journal of Law and Economics*, Vol. XLV, pp. 41-68.
- Peoples, J. and L. Saunders (1993), “Trucking Deregulation and the Black/White Wage Gap”, *Industrial and Labor Relations Review*, Vol. 47, pp. 23-35.
- Petit, P. (2007), “The Effects of Age and Family Constraints on Gender Hiring Discrimination: A Field Experiment in the French Financial Sector”, *Labour Economics*, Vol. 14, pp. 371-391.
- Phelps, E.S. (1972), “The Statistical Theory of Racism and Sexism”, *American Economic Review*, Vol. 62, No. 4, pp. 659-661.
- Phillips, T., R. Kerslake and J. Mayhew Jonas (2007), “Fairness and Freedom: The Final Report of the Equalities Review”, available at [http://archive.cabinetoffice.gov.uk/equalitiesreview/upload/assets/www.theequalitiesreview.org.uk/equality\\_review.pdf](http://archive.cabinetoffice.gov.uk/equalitiesreview/upload/assets/www.theequalitiesreview.org.uk/equality_review.pdf)
- Rayner, C. (2007), “The Burden of Proof and Access to Evidence, *mimeo* published at the Academy of European Law, available at [www.era.int/web/en/resources/5\\_1095\\_6126\\_file\\_en.8803.pdf](http://www.era.int/web/en/resources/5_1095_6126_file_en.8803.pdf)
- Reilly, K.T. and T.S. Wirjanto (1999), “Does More Less? The Male/Female Wage Gap and Proportion of Females at the Establishment Level”, *Canadian Journal of Economics*, Vol. 32, No. 4, pp. 906-929.
- Riach, P.A. and J. Rich (2002), “Field Experiments of Discrimination in the Market Place”, *Economic Journal*, Vol. 112, pp. F480–F518.
- Riach, P.A. and J. Rich, (2006), “An Experimental Investigation of Sexual Discrimination in Hiring in the English Labor Market”, *Advances in Economic Analysis and Policy*, Vol. 6, No. 2, Article 1.
- Riach, P.A. and Rich, J. (1991), “Testing for Racial Discrimination in the Labour Market”, *Cambridge Journal of Economics*, Vol. 15, pp. 239-256.
- Roed, M. and P. Schone (2006), “Does High Product Market Competition Benefit Women and Immigrants?”, unpublished manuscript, Institute for Social Research, Oslo.
- Roeger, W. (1995), “Can Imperfect Competition Explain the Difference Between Primal and Dual Productivity Measures?” Estimates for US Manufacturing, *Journal of Political Economy*, Vol. 103, pp. 316-330.



- Schindlauer, D. (2007), *Report on Measures to Combat Discrimination –Austria*, European Network of Legal Experts in the Non-Discrimination Field, European Commission.
- Schwartz-Miller, A. and W.K. Talley (2000), “Motor Bus Deregulation and the Gender Wage Gap: A Test of the Becker Hypothesis”, *Eastern Economic Journal*, Vol. 26, No. 2, pp. 145-156.
- Simeone, L. (2005), “Discrimination Testing Based on ILO Methodology”, International Labour Office, Geneva.
- Somes, G. (1983), “McNemar Test”, in S. Kotz and N. Johnson (eds.), *Encyclopedia of Statistical Sciences*, Vol. 5, Wiley, New York.
- Stoll, M.A., H.J. Holzer and K.R. Ihlanfeldt (2000), “Within Cities and Suburbs: Racial Residential Concentration and the Spatial Distribution of Employment Opportunities across Sub-Metropolitan Areas”, *Journal of Policy Analysis and Management*, Vol. 19, No. 2, pp. 207-231.
- Weichselbaumer, D. (2004), “It Is Sex or Personality? The Impact of Sex Stereotypes on Discrimination in Applicant Selection”, *Eastern Economic Journal*, Vol. 30, No. 2, pp. 159-186.
- Weichselbaumer, D., and R. Winter-Ebmer (2005), “A meta-analysis of the international gender wage gap”, *Journal of Economic Surveys*, Vol. 19(3), pp. 479-511.
- Weichselbaumer, D., and R. Winter-Ebmer (2007), “The effect of competition and equal treatment laws on gender wage differentials”, *Economic Policy*, Vol. 22, pp. 235-287.
- Winter-Ebmer, R. (1995), “Sex Discrimination and Competition in Product and Labour Markets”, *Applied Economics*, Vol. 48, No. 2, pp. 185-191.