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Equal opportunities practices and enterprise performance: A comparative investigation on Australian and British data

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The experience of several decades of anti-discrimination legislation has shown the importance of action at enterprise level to remove direct and indirect discrimination and promote diversity and equality of opportunities for all groups of employees.[1] However, only a minority of firms seem to implement equal opportunities measures. One way to combat discrimination may be for public policy to encourage more enterprises to adopt equal opportunities plans and practices, and part of the debate concerns the most effective way to do this.[2] Several approaches can be taken, from making certain practices compulsory (e.g. workforce composition monitoring or equal opportunities training) to providing tax and other incentives, to simply recommending certain measures. How effective each of these options will be depends in part on whether enterprises benefit from adopting equal opportunities

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[1] The terms "equal opportunities policies" and "equal opportunities practices", as well as "anti-discrimination policies" will be used throughout the article to cover a range of policies and practices that include equal opportunities, affirmative action, diversity management and other workplace measures designed to prevent or correct direct and indirect discrimination, and to improve the opportunities available to employees from discriminated groups and their representation at all levels in the enterprise.

[2] Other aspects of the debate on firm-level equal opportunities practices regard the effectiveness of the measures themselves in improving the situation of discriminated groups and fears that equal opportunities policies could result in reverse discrimination (see Altonji and Blank, 1999, for a review of the economics debate, and Holzer and Neumark, 1999, on the issue of reverse discrimination).

practices. A practice associated with improved performance will be easier to promote. This article looks at the incidence of equal opportunities practices in the United Kingdom and Australia, together with the factors leading enterprises to adopt such practices and their effect on productivity.

The United Kingdom and Australia have had anti-discrimination legislation for three decades, and both countries have been encouraging enterprises to implement equal opportunities measures. However, the two countries have taken different approaches. Equal opportunities practices have remained entirely voluntary for the private sector in the United Kingdom, while Australian regulation has been more constraining, especially for large firms. These two institutional contexts make it possible to compare the choices firms make under the different policy options taken by Australia and the United Kingdom and to assess whether the policy regime makes a difference. The options for public policy can thus be examined, including, in particular, the extent to which a more constraining approach may be desirable.

The article focuses on small and medium-sized enterprises (SMEs), comparing their position with that of larger firms at each stage of the analysis. The design of the Australian policy, which is less demanding for small enterprises, means that it is important to consider SMEs and larger firms separately. In addition, there are more general reasons for giving SMEs special attention: SMEs represent the majority of enterprises around the world – even though they do not always employ the majority of workers – but tend to be subjected to less stringent regulatory requirements than large firms in many countries. SMEs are generally less unionized and often offer lower pay and fewer formal benefits than larger firms; and it is thought to be more difficult to engage SMEs in implementing standards they may regard as too formal or costly. The incidence of equal opportunities plans and the environment in which the plans are implemented are therefore likely to differ between SMEs and larger firms.

The United Kingdom and Australia provide the only recent, accessible and nationally representative enterprise-level data on equal opportunities practices and performance, with the latest rounds of the British Workplace Employee Relations Survey (WERS) and the Australian Workplace Industrial Relations Survey (AWIRS), respectively conducted in 1998 and 1995. These data make it possible to go beyond individual enterprise cases to look at large representative samples that include enterprises that do not have the practices as controls in the study. They also make it possible to use advanced statistical methods of analysis that take account of firm characteristics other than size – such as industry, unionization, etc. In particular, WERS and AWIRS provide exceptionally rich information on human resource practices, technology and industrial relations.

The objective of our investigation into the effect of equal opportunities practices on firm performance is to inform the design of anti-discrimination policies. In this connection, it is worth stressing that the perspective we take differs substantially from the "business case" approach that is sometimes taken to promote anti-discrimination policies. The policy issues involved are reviewed in the first section of the article. The next section outlines the regulatory contexts in the two countries studied and briefly presents the data we use and the incidence of equal opportunities practices in the two countries. The characteristics of the enterprises covered and their relationships with productivity are examined in turn in the third and fourth sections. The final section draws some conclusions and policy implications.

Human rights at work and performance: Policy issues

The point of examining the relationship between anti-discrimination practices and enterprise performance is to inform policy choice. A policy measure encouraging enterprises to adopt new practices will generally be easier to implement if those practices are associated with better performance. However, this does not imply that association with higher enterprise performance, if it were verified, should become the reason for promoting human rights at work or be used as the main argument to convince governments and enterprises – as is sometimes done when a "business case" is made for fighting discrimination. Such a strategy would be both inappropriate and risky.

Promoting equal opportunities practices on the grounds that they improve enterprise performance would be inappropriate because non-discrimination at work is a human right. Its elimination is therefore an objective of public policy regardless of the possible effects on enterprise performance. A way to see this is to think of other aspects of human rights at work. For example, slavery would still have to be eradicated even if it was found to be profitable or productive. The issue is therefore not whether non-discrimination should be promoted because (or if) it increases performance, but rather how to promote it most effectively.

Relying on prospects of better enterprise performance to convince enterprises would also be risky because equal opportunities practices may raise productivity without automatically resulting in increased profit, and discrimination may be profitable in certain circumstances. Our central hypothesis is that equal opportunities practices increase productivity by improving organizational efficiency. However, profit depends not only on productivity – which is a "physical" relationship between inputs and outputs – but also on the prices of inputs and outputs. If initially lower establishment productivity due to discrimination

were matched by correspondingly lower pay for employees from discriminated groups, implementing an effective equal opportunities plan should raise productivity (and economic efficiency) and pay, possibly with a neutral effect on profit. For a given level of productivity, discrimination will be more profitable than fairness if customers are prejudiced against a discriminated group[3] and/or if the firm has sufficient market power over discriminated groups in its workforce to pay low wages.[4]

Though increased productivity does not guarantee increased profit, it makes it possible. Investigating possible effects on enterprise productivity allows us to find out whether enterprises will have disincentives to implement equal opportunities measures. As long as the benefits from improved performance at least cover the costs associated with a practice, enterprises will have no disincentive to adopt it. Conversely, if the practices are associated with lower enterprise performance, policy design may have to incorporate other incentives in order to be more effective (e.g. subsidies, fines of a sufficiently high level to deter non-compliance, etc.).

Regulatory context, data and incidence of equal opportunities practices

Both Australia and the United Kingdom have had anti-discrimination legislation for three decades, and in both countries the focus of policy in this area shifted somewhat in the 1980s to encompass aspects of the terms of employment other than pay and to encourage enterprise-level equal opportunities policies.[5] In the two countries, guidelines were issued for enterprise-level equal opportunities plans – by the Equal Opportunities Commission (in 1983) and the Commission for Racial Equality (in 1985) in the United Kingdom and in the 1986 Affirmative Action (Equal Employment Opportunities for Women) Act in Australia. In both cases, the explicit aims of the plans are to avoid discrimination and to promote equality by improving the opportunities of groups that have faced discrimination.[6]

Neither country requires enterprises to achieve specific outcomes or uses quotas, and in the United Kingdom equal opportunities practices are entirely voluntary in the private sector. However, the Australian

[3] See Becker (1971). Hanssen (1998) provides empirical evidence of the conflicting influences of consumer prejudice and team performance on desegregation in major league baseball in the United States.

[4] See, for example, Barth and Dale-Olsen (1999) for empirical evidence on monopsonistic discrimination.

[5] See Pérotin, Curtain and Millward (1998) for a comparison of the regulatory contexts in the two countries at the time of the two surveys used here (WERS in 1998 and AWIRS in 1995).

[6] In principle, the Australian legislation only concerns sex discrimination. In practice, however, enterprise plans have tended to cover other forms of discrimination as well (see Affirmative Action Review Committee, 1998).

legislation has been more constraining, requiring all enterprises with more than 100 employees to establish plans and report on their progress. At the time of the 1995 AWIRS, an annual report was required and subsequently rated by Australia's Affirmative Action Agency. Firms that failed to report or provide evidence of a programme were named in the Agency's report to Parliament and ran the risk of becoming ineligible for certain government contracts. Neither country offered tax incentives for setting up equal opportunities plans.

Data and definitions

The data used in this article are from the AWIRS 1995 and WERS 1998, which cover representative samples of about 2,000 workplaces with at least 20 employees for Australia and 2,200 workplaces with at least ten employees for the United Kingdom.[7] SMEs in this study are single-establishment, private-sector enterprises with fewer than 200 employees (in both countries) or workplaces that are part of a multiple-establishment private-sector enterprise with fewer than 200 employees for the United Kingdom or fewer than 500 employees for Australia. Among the many possible definitions of an SME, this one best fits the size distributions of enterprises in the two countries and provides the best comparability, given data constraints. It is also comparable to the European definition of an SME (fewer than 250 employees). Wherever practicable, the comparisons are also carried out using a cut-off point of 100 employees for Australia in order to reflect the regulatory situation better (any discrepancies are reported).

Both surveys comprise detailed information on each establishment's human resource policies, industrial relations, work practices and conditions, skills and technology, as well as data on workforce composition. Crucially for our purposes, the surveys investigate whether the establishment has a formal equal opportunities policy and a series of related practices.

The incidence figures presented in this section are based on the latest edition of each survey, i.e. 1995 for AWIRS and 1998 for WERS. Each sample also comprises a smaller subsample of workplaces that were interviewed both in the latest editions of the two surveys and in the previous editions (1990 for both). This subsample is used in some of the econometric estimations in order to take into account certain workplace characteristics that may have pre-dated the adoption of equal opportunities practices but may be correlated with it.

[7] An additional Australian sample of very small businesses is not used in this study. WERS 1998 and AWIRS 1995 are described respectively in Cully et al. (1999) and Morehead et al. (1997). Detailed definitions of the variables used in this article are available from the authors on request.

Overall incidence of enterprise-level equal opportunities policies

There are several reasons to expect SMEs to have fewer formal equal opportunities policies in place than larger enterprises. The fixed costs of implementing some policies may be high; SMEs less often have a specialized human resource management function and may be less well informed about best practice; SMEs tend to be less unionized; and their different organizational context implies that some issues covered by equal opportunities plans, such as career ladders, are less relevant for SMEs than for larger enterprises. However, SMEs' informal procedures – e.g. in matters of hiring – may be a factor of greater discrimination.

The partial information available suggests that in both countries there is a lower proportion of employees from ethnic minorities in SMEs (Cully et al., 1999; Morehead et al., 1997). The presence of a formal equal opportunities policy is generally associated with a lesser degree of gender segregation, both horizontally and vertically, and, at least in the United Kingdom, with a higher proportion of ethnic minority employees (ibid.). Among those SMEs in the United Kingdom that had a formal equal opportunities policy in 1998, 27 per cent indicated that the proportion of women in management posts had increased in the last five years, as against 17 per cent of the SMEs that did not have a formal policy, suggesting that such policies are associated with effective action. In Australia, 14 per cent of the SMEs that did not have a formal equal opportunities policy[8] in 1995 indicated they had some jobs that were only open to men, as opposed to 7 per cent of those SMEs that had a formal policy in place.

Tables 1 and 2 show the overall incidence of formal (written) equal opportunities policies in SMEs and larger firms, what they cover, and the means by which the policies are made known to employees, for the United Kingdom and Australia, respectively. The statistical significance of the differences between SMEs and large enterprises is tested for in the last column.[9] Overall, the incidence of formal equal opportunities policies is quite high among SMEs in both countries – 32 per cent in the United Kingdom and 25 per cent in Australia at the time of the surveys. However, it remains considerably lower in SMEs than in larger enterprises. The surveys indicate that 83 per cent of larger firms had a

[8] For Australia, policies in the "affirmative action" category are included in what we call "equal opportunities policies" or practices for the purposes of this article, and may cover several types of discrimination, including gender and ethnic discrimination.

[9] Statistical significance indicates that there is a high probability that the difference observed between the two groups reflects a difference between the two populations the groups are sampled from, rather than a chance difference due to the particular samples of enterprises we are looking at. The lower the "level of significance" (expressed as a percentage), the stronger the significance; the higher the level of significance, the higher the probability that the actual difference between the two populations is zero.

written policy both in the United Kingdom in 1998 and in Australia in 1995 (and in both countries the statistical significance of the difference between large firms and SMEs is strong). In Australia, the overall incidence of the policies is known to have increased in the years that followed the survey (Pérotin, Curtain and Millward, 1998) so that by 1998 a higher proportion of large firms must have had a written policy in Australia than in the United Kingdom.

As tables 1 and 2 show, the two surveys provide similar, but not always comparable, information. The United Kingdom survey (table 1) includes information on the grounds for discrimination covered by the policies. On this point, the priorities that appear in SMEs' policies are roughly the same as those appearing in larger enterprises' policies, the most frequently mentioned grounds being gender, ethnicity and disability. However, fewer large firms omit all of the grounds for discrimination mentioned in the survey (11 per cent, as against nearly a quarter of SMEs), and large firms more frequently address other types of discrimination as well (32 per cent, as against 16 per cent of SMEs).[10]

The Australian survey (table 2) looks at aspects of human resource management covered by the policy, such as recruitment, training, etc.; and here again, the order of priorities is roughly the same among SMEs as it is among larger firms, with recruitment, selection and promotion cited by nine-tenths of the enterprises that have a policy, followed by training. However, SMEs and large firms are much more similar to each other in Australia than in the United Kingdom: the only strongly significant difference concerns the monitoring of workforce composition (30 per cent of larger Australian firms and 17 per cent of SMEs), while quantitative employment targets for discriminated groups appear in less than 10 per cent of the policies of both groups.

Both surveys provide indications about the ways in which enterprises that have a formal equal opportunities policy inform their employees of the policy (see tables 1 and 2). Among enterprises in the United Kingdom, by far the most common means is the staff handbook (62 per cent of SMEs and 74 per cent of large firms), though SMEs are significantly less likely than larger enterprises to use their staff handbook or induction programmes or to display the policy on noticeboards, which are perhaps more common in larger firms in general. In Australia, there is much greater similarity between larger enterprises and SMEs in this area also: about 40 per cent of enterprises in both

[10] Among the two-thirds of SMEs in the United Kingdom that do not have a written equal opportunities policy, only 19 per cent indicate that they have a policy that is not written down and 5 per cent that they are developing a policy. Nearly half of all the SMEs that responded (47 per cent) claimed a policy was unnecessary, and nearly one-fifth (18 per cent) said they had not even considered adopting a policy. This suggests that there is a lack of awareness of equal opportunities and discrimination issues among those SMEs that do not have a formal policy in place.

Table 1. Incidence of equal opportunities policies in SMEs and larger firms in the *United Kingdom* (proportion of private sector workplaces, 1998)

	SMEs	Large	Statistical test for difference between means (*t*- or *z*-statistic)
All enterprises			
Proportion with a formal equal opportunities policy	0.32	0.83	20.78***
Enterprises with an equal employment opportunities policy			
Policy covers discrimination on grounds of:			
Sex/gender	0.75	0.85	3.56***
Ethnic minority	0.74	0.87	4.75***
Religion	0.61	0.70	2.62***
Marital status	0.55	0.63	2.23**
Disability	0.70	0.84	4.77***
Age	0.55	0.57	0.55
Sexual orientation	0.49	0.50	0.27
Trade union membership	0.34	0.44	2.77***
Other type of discrimination	0.16	0.32	4.88***
None of these types of discrimination	0.23	0.11	–4.66***
Average number of areas covered in policy	4.89	5.72	3.77***
Method by which the policy is made known to employees:			
Letter of appointment	0.27	0.27	0.00
Staff handbook	0.62	0.74	3.61***
Noticeboard	0.14	0.22	2.75***
Induction programme	0.26	0.37	3.18***
Notification by management	0.14	0.18	1.46
Notified as part of job application procedure	0.01	0.03	1.78
Number of ways in which policy is made known to employees	1.43	1.81	5.03***

*, ** and *** denote statistical significance at the 10, 5 and 1 per cent levels, respectively.

groups give employees a copy of the policy when they start, and roughly a quarter distribute the policy to all employees, though only a very small proportion (2 per cent) have the policy translated for employees from non-English speaking backgrounds. The similarities between the two groups of enterprises may be due to the fact that stricter regulation applies not only to larger firms but also to SMEs with more than 100 employees. The only significant difference between SMEs and larger enterprises in Australia concerns the use of noticeboards to display the policy. Noticeboards are mentioned in both surveys, and the proportions of SMEs and larger firms that use this means of information are higher in Australia than in the United Kingdom, but it is difficult to tell whether this reflects a difference of workplace cultures or different levels of commitment to the policy.

Table 2. Incidence of equal opportunities policies in SMEs and larger firms in *Australia* (proportion of private sector workplaces, 1995)

	SMEs	Large	Statistical test for difference between means (*t*- or *z*-statistic)
All enterprises			
Proportion with an equal employment opportunities policy	0.25	0.83	19.07***
Enterprises with an equal employment opportunities policy			
Aspects specifically addressed in the policy:			
Recruitment, selection and promotion	0.87	0.92	1.73*
Training	0.56	0.64	1.71*
Monitoring of workforce composition	0.17	0.30	2.69***
Employment targets for particular groups	0.06	0.09	1.16
Other	0.07	0.02	–2.58***
Methods by which the policy is made known to employees:			
Employees get a copy when they start	0.41	0.39	–0.40
The policy is distributed individually to each employee	0.23	0.27	0.97
Employees can ask to see the policy if they want	0.41	0.43	0.32
Employees have ready access to policy manuals without having to ask	0.28	0.34	1.29
The policy is displayed on noticeboards	0.17	0.45	5.60***
Written information has been translated into other languages for employees of non-English-speaking backgrounds	0.02	0.02	–0.06
Information sessions to explain the policy have been held with employees	0.08	0.19	0.26
Other	0.02	0.03	–0.40

*, ** and *** denote statistical significance at the 10, 5 and 1 per cent levels, respectively.

Accompanying equal opportunities practices

Each of the two surveys also examines a number of practices that can accompany a written policy in order to ensure it is implemented and to demonstrate commitment to promoting equal opportunities and fighting discrimination. Such practices range from monitoring workforce composition and reviewing pay and procedures, to equal opportunities training, setting quantitative targets, making workplaces more disabled-friendly and offering English-language training (see tables 3 and 4). Some of these practices may also be found in enterprises that do not have a written equal opportunities policy, though much less frequently, as can be seen by comparing the top and bottom halves of tables 3 and 4. In both countries, this difference is more marked among SMEs than among larger enterprises, even though the exact list of practices covered is not the same in the two surveys.

Table 3. Equal opportunities practices and indicators in the *United Kingdom* (proportion of private sector workplaces, 1998)

	SMEs	Large	Statistical test for difference between means (*t*- or *z*-statistic)
All enterprises			
Keeps records on the proportion of ethnic-minority employees	0.10	0.38	13.31***
Collects statistics by gender	0.07	0.28	11.22***
Monitors promotions by gender, ethnicity, etc.	0.02	0.10	6.84***
Reviews procedures to identify indirect discrimination	0.04	0.19	9.55***
Reviews relative pay rates of different groups	0.05	0.12	3.19***
Makes adjustments to the workplace for disabled employees	0.12	0.26	7.24***
Provides training in equal opportunities	0.06	0.12	4.25***
Procedures to encourage job applications from discriminated groups:			
Women returning to paid employment after having children	0.07	0.11	2.83***
Ethnic minority workers	0.04	0.08	3.41***
Older workers	0.04	0.05	0.98
Disabled workers	0.04	0.08	3.41***
Long-term unemployed	0.04	0.08	3.41***
Number of women in management posts has increased	0.20	0.47	10.51***
Enterprises with an equal employment opportunities policy			
Keeps records on the proportion of ethnic-minority employees	0.12	0.42	8.70***
Collects statistics by gender	0.09	0.30	6.73***
Monitors promotions by gender, ethnicity, etc.	0.04	0.11	3.35***
Reviews procedures to identify indirect discrimination	0.10	0.22	4.22***
Reviews relative pay rates of different groups	0.10	0.14	2.50***
Makes adjustments to the workplace for disabled employees	0.20	0.28	2.51**
Provides training in equal opportunities	0.16	0.15	–0.38
Procedures to encourage job applications from discriminated groups:			
Women returning to paid employment after having children	0.07	0.11	1.84
Ethnic minority workers	0.07	0.09	0.98
Older workers	0.05	0.03	–1.48
Disabled workers	0.06	0.10	1.93
Long-term unemployed	0.05	0.08	1.59
Number of women in management posts has increased	0.27	0.49	5.68***

*, ** and *** denote statistical significance at the 10, 5 and 1 per cent levels, respectively.

In the United Kingdom, even among enterprises which have a formal equal opportunities policy, the incidence of practices considered key elements of a successful policy – such as monitoring workforce composition (the most widely reported practice) – remains quite low. For example, only 42 per cent of large enterprises and 12 per cent of

Table 4. Equal opportunities practices and indicators in *Australia* (proportion of private sector workplaces, 1995)

	SMEs	Large	Statistical test for difference between means (*t*- or *z*-statistic)
All enterprises			
Employment targets are set for women in managerial positions	0.03	0.05	1.75*
Employment targets are set for women in non-managerial positions	0.02	0.04	1.84*
There is a manager responsible for equal opportunities at the workplace	0.04	0.09	3.13***
Managers are given training on equal employment opportunities	0.26	0.51	8.25***
Workplace offers English-language training	0.05	0.10	3.01***
Workplace provides specific facilities for employees with disabilities	0.15	0.23	0.32
There are some jobs which are only available for men	0.16	0.09	–3.95***
There are some jobs which are only available for women	0.12	0.05	–3.97***
Enterprises with an equal employment opportunities policy			
Employment targets are set for women in managerial positions	0.09	0.07	–0.49
Employment targets are set for women in non-managerial positions	0.04	0.05	0.43
There is a manager responsible for equal opportunities at the workplace	0.14	0.11	–0.75
Managers are given training on equal employment opportunities	0.46	0.58	2.38***
Workplace offers English-language training	0.14	0.15	0.26
Workplace provides specific facilities for employees with disabilities	0.25	0.32	1.50
There are some jobs which are only available for men	0.09	0.07	–1.02
There are some jobs which are only available for women	0.06	0.04	–0.94

*, ** and *** denote statistical significance at the 10, 5 and 1 per cent levels, respectively.

SMEs with a formal policy kept records on the proportion of ethnic minority employees at the time of the survey. As for statistics on workforce composition by gender, the corresponding proportions were 30 per cent and 9 per cent, respectively. Formal policies may be more often accompanied by complementary practices in Australia, where equal opportunities training for managers – the most widely reported practice – was found in 58 per cent of the large firms and 46 per cent of the SMEs with a formal policy in 1995. However, the percentages of workplaces with special arrangements for the disabled are similar in the two countries (though the surveys asked about this in different ways): 32 per cent of larger firms and 25 per cent of SMEs with formal policies in Australia in 1995, as against 28 per cent and 20 per cent, respectively, in the United Kingdom in 1998.

Overall, accompanying equal opportunities practices are found much less frequently in SMEs than in larger enterprises in the United

Kingdom (table 3). Two exceptions are equal opportunities training, which is offered by 15-16 per cent of all enterprises with formal policies, and procedures to encourage job applications by members of discriminated groups, which are rare in both SMEs and larger firms in the United Kingdom. A much smaller gap is again observed between SMEs and larger firms in Australia, except for the most widely used practice – manager training on equal opportunities – which is reported by 58 per cent of large firms but less than 50 per cent of SMEs. As in the United Kingdom, practices that suggest the most serious commitment, such as setting employment targets for women in managerial positions, remain infrequent in all enterprises (under 10 per cent of all enterprises with formal policies).

Which enterprises have equal opportunities policies?

There are two reasons for examining the factors that lead enterprises to adopt anti-discrimination policies. The first is that the experience of firms that have adopted a policy voluntarily may not be replicable if those firms have unusual characteristics. The second reason is to find out whether those enterprises performed better than others before they adopted the policies, in order to address possible reverse causality issues that may arise in the investigation of productivity effects. Accordingly, this section begins by reviewing the possible factors that could lead firms to adopt equal opportunities measures. It then compares enterprises with and without a formal policy and, finally, estimates the effect of past performance and enterprise characteristics on the probability that an enterprise will adopt an equal opportunities policy.

Possible determinants of the adoption of an equal opportunities policy

Overall legal considerations may incite firms – especially large ones quoted on the stock market – to set up equal opportunities plans in order to prevent expensive lawsuits and to signal to investors the companies' intent to act fairly (Wright et al., 1995), whether or not the companies have a statutory obligation to adopt a plan, as is the case in Australia. For all enterprises, adopting an equal opportunities plan may be a response to a perceived need to "desegregate" their workforce or simply to improve its diversity, so that enterprises with a smaller percentage of employees from discriminated groups would be more likely to set up a plan. However, it is also possible that enterprises with a larger part of their workforce from discriminated groups are under stronger pressure to fight discrimination in their operations. In other words, workforce composition may have either a positive or a

negative effect on an enterprise's likelihood of adopting an equal opportunities policy.

Trade unions may be aware of discrimination issues and push for a plan. Yet, if trade unions promote insiders' interests, and insiders are primarily members of the non-discriminated group, equal opportunities measures may be perceived as threatening and unions may at best be neutral and at worst be hostile to the adoption of an effective plan. The expected effect of trade unions is therefore also ambiguous.

Firms with a generally more participatory style may be more likely to adopt equal opportunities policies, either because they are managed by individuals with a preference for equity and democratic values or because participatory schemes are expected to operate more effectively if participation is broadened by equal opportunities measures (Pérotin, Curtain and Millward, 1998). However, certain participatory schemes, like profit-sharing, potentially create a conflict of interests between insiders and prospective entrants, because insiders might have to split the same share of profit with an increased number of colleagues if equal opportunities measures were to result in wider participation in the scheme. In the United Kingdom, profit-sharing schemes have been observed to be less often associated with equal opportunities practices than other participatory schemes (Pérotin and Robinson, 2000). Finally, it is also possible that enterprises that adopt equal opportunities policies are generally better run and therefore more productive, or simply that more productive enterprises perceive they can afford the cost of setting up a scheme, which may entail increases in benefits and wages for employees from discriminated groups.

To sum up, one can expect an enterprise's employment level to be positively associated with the adoption of a policy; workforce composition and trade union activity to have either a positive or a negative effect; and participatory schemes (except perhaps profit-sharing) as well as past performance to have positive effects.

Simple comparisons between SMEs with and without equal opportunities policies

Before going on to examine empirically what determines the adoption of a policy, it is useful to compare the characteristics of enterprises that have a policy with those of enterprises that do not. Such a comparison, however, can only be indicative: it cannot disentangle cause and effect, and any differences observed may reflect factors that led certain firms to set up a plan as well as the effects of the plan. Here, the comparison is limited to SMEs, which have been less well researched than larger firms.

Following the theoretical arguments set forth above, the comparison of SMEs with and without a formal policy focuses on employment

level, workforce composition, participatory schemes, industrial relations and human resource management practices, skills and indicators of technology (tables 5 and 6).[11]

Overall, the differences between SMEs with and without a policy are remarkably similar in Australia and the United Kingdom, suggesting either that enterprises which adopt a policy have the same profile or that having a policy affects enterprises in the same way in the two countries. The greater similarity between enterprises with and without a policy in the SME group, where policies are implemented with fewer related practices on average, suggests that at least part of the differences observed in the SME group are due to the effects of having a policy.

Both in Australia and in the United Kingdom, those SMEs that have a policy may be more productive than those without a policy.[12] They also have more representative forms of employee participation such as joint consultative committees and more employee share ownership, but not more problem-solving groups such as quality circles, or profit-sharing schemes (tables 5 and 6). In Australia, there is no difference between the two groups of firms as to the proportion of women or employees from non-English-speaking backgrounds in their workforces. In the United Kingdom, the share of women is higher among enterprises with an equal opportunities policy, but no significant difference is observed in the proportion of workers from ethnic minorities. The relationship between family-friendly policies and equality of opportunity for women and men is generally ambiguous (Mitchell, 1997), but family-related benefits are worth a mention. Both surveys list a few family-friendly practices, with a significantly higher incidence – of around one practice on average – among SMEs with an equal opportunities policy than among those without a policy. Union density and other indicators of union presence show no difference between the two groups of firms in either country, though a higher percentage of employees are covered by enterprise agreements in SMEs with a policy in Australia.[13] Finally, the skills and industry distributions suggest that SMEs with a policy have more of a service and white-collar orientation in both countries.

[11] For Australia, the comparison was also done for SMEs with 100 or fewer employees, though the results are not reported here. The findings were similar to those for SMEs in general, though the differences between enterprises with and without a policy were less marked among the smaller SMEs.

[12] The difference in labour productivity between firms with and without a policy is mildly significant for SMEs in both countries, but insignificant for Australian enterprises with 100 employees or less.

[13] Neither the incidence of family-friendly policies nor coverage by enterprise agreements shows any significant differences between enterprises with and without equal opportunities policies among enterprises with 100 or fewer employees in Australia.

Table 5. Characteristics of SMEs with and without equal opportunities policies in the *United Kingdom* (private sector enterprises with fewer than 200 employees, 1998)

	Means or proportions		Statistical test for difference between means (*t*- or *z*-statistic)
	No written policy	Written policy	
Performance			
Level of labour productivity	3.61	3.76	2.17**
Participation			
Representative participation	0.12	0.22	3.49***
Bottom-up problem solving	0.35	0.37	0.56
Profit-related pay	0.19	0.11	–2.85***
Employee share-ownership	0.00	0.03	3.61***
Human resource management and industrial relations			
Downward communication	0.80	0.89	3.13***
Number of family-friendly policies	0.56	1.17	8.46***
Written policy on paternity	0.04	0.24	1.38
Employees entitled to parental leave	0.17	0.21	5.74***
Employees entitled to work at home	0.06	0.19	1.84
Employees entitled to term-time only contracts	0.04	0.07	6.80***
Employees entitled to switch from full- to part-time employment	0.21	0.44	5.74***
Employees entitled to job-sharing schemes	0.06	0.19	5.32***
Nursery linked to workplace	0.00	0.05	2.10**
Workplace provides financial help to parents for childcare	0.01	0.03	8.82***
Trade union membership	0.05	0.05	0.01
Job-related factors			
Average weekly working time	39.89	37.72	–3.20***
A lot of variety in work	0.48	0.58	2.59***
A lot of discretion over how work is done	0.35	0.36	0.20
A lot of control over the pace of work	0.30	0.37	1.84
Shift work	0.18	0.37	5.93***
Proportion of part-time employees	0.46	0.22	1.36
Employee characteristics and skills			
Proportion of female employees	0.44	0.61	4.59***
Proportion of workforce from ethnic minorities	0.02	0.04	1.50
Proportion of workforce with disability	0.01	0.01	0.21
Proportion of blue-collar employees	0.25	0.29	6.73***
Establishment controls			
Number of employees (ln)	3.10	3.27	3.42***
Average percentage change in pay	4.68	4.19	–2.06**

*, ** and *** denote statistical significance at the 10, 5 and 1 per cent levels, respectively.

Table 6. Characteristics of SMEs with and without equal opportunities policies in *Australia* (private sector enterprises with fewer than 500 employees, 1995)

	Means or proportions		Statistical test for difference between means (*t*- or *z*-statistic)
	No written policy	Written policy	
Performance			
Level of labour productivity	3.50	3.80	1.85*
Participation			
Joint consultative committee	0.18	0.42	4.20***
Quality circles	0.13	0.20	1.48
Team briefing	0.60	0.87	4.45***
Profit-related pay	0.09	0.13	0.97
Employee share-ownership	0.05	0.14	2.67***
Human resource management and industrial relations			
Performance-related pay	0.38	0.42	0.63
Other communication methods	0.37	0.13	–4.08***
Family-friendly policies	0.78	0.92	2.82***
Training for other skills	0.45	0.76	4.76***
Percentage of workforce covered by enterprise agreements	17.20	28.40	2.16**
Union has members	0.52	0.61	1.28
Union density	25.93	33.56	1.30
Industrial action	0.10	0.15	1.31
Job-related factors and technological or organizational change			
Shift work	0.49	0.71	3.38***
Part-time work	22.46	14.86	–1.44
Employees take 3 months or less to learn job	0.75	0.56	–3.16***
Introduction of major new office technology	0.35	0.48	2.11**
Introduction of major new plant, machinery or equipment	0.36	0.46	1.58
Major reorganization of workplace structure	0.34	0.57	3.62***
Major changes to how non-managerial employees do their work	0.25	0.53	4.54***
Establishment controls			
Number of employees	42.00	81.10	5.79***
Average wages	641.30	763.60	2.88***
Employee characteristics and skills			
Proportion female	0.36	0.38	0.42
Non-English-speaking background	0.35	0.41	0.93
Managers	9.80	10.10	0.07
Professionals	4.75	9.44	1.51
Para-professionals	3.61	10.75	2.41***
Tradespersons	17.64	10.78	–1.44
Clerks	12.73	20.39	1.65*
Salespersons	13.80	8.85	–1.14
Plant and machine operators	19.43	16.13	–0.65
Labourers	18.23	13.55	–0.95

Table 6. Characteristics of SMEs with and without equal opportunities policies in *Australia* (private sector enterprises with fewer than 500 employees, 1995) *(concl.)*

	Means or proportions		Statistical test for difference between means (*t*- or *z*-statistic)
	No written policy	Written policy	
Industry			
Mining	0.04	0.03	–0.75
Manufacturing	0.40	0.34	–0.92
Construction	0.13	0.05	–1.92*
Wholesale, retail	0.09	0.18	2.01**
Accommodation, cafes and restaurants	0.11	0.04	–1.85*
Transport, storage and communication	0.05	0.05	–0.09
Finance, insurance, property and business services	0.09	0.19	2.28**
Education, health and community services	0.01	0.08	3.20***
Cultural, recreational, personal and other services	0.07	0.05	–0.63

*, ** and *** denote statistical significance at the 10, 5 and 1 per cent levels, respectively.

Determinants of the adoption of equal opportunities policies: Estimations

The panel dimension that is available for a subsample of establishments in each survey makes it possible to observe a group of enterprises that did not have particular policies or practices in 1990 – the date of the previous round of the surveys in both countries – and estimate the relationship between an enterprise's characteristics and the probability that it would have adopted the policy or practice by the time of the next round of the survey (1995 for AWIRS and 1998 for WERS). Whenever we use the panel dimension of the surveys, the investigation is limited to those questions that were asked in both rounds, which was a more restrictive constraint for the United Kingdom estimations. For each country the sample size is also smaller, since only those establishments that were present in both samples are used in the estimations; and out of that subsample, only the enterprises that did not have the policy or practice in 1990 are included in the investigation of the determinants of policy adoption. For this reason a limited number of variables was included in the estimations, and the Australian estimations were not run separately for enterprises with fewer than 100 employees. This methodology also implies a truncation of the sample, since the firms that already had equal opportunities practices in 1990 are excluded from the estimation. However, the distortion may not be excessive since these firms represent only a small subset of the overall sample. Besides, this group of firms is included in the productivity estimations.

For Australia, the estimation includes SMEs that stated in 1990 that they did not have an equal opportunities policy, some of which had adopted a policy by 1995. On this sample, we ran a probit estimation to investigate the effects of productivity, participatory and human resource practices, aspects of industrial relations, technology, employee characteristics, skills and demand trends in 1990 on the probability that the firm would have a policy in 1995. The same estimation was carried out for larger enterprises.

The 1990 round of the United Kingdom survey did not include a variable on the existence of an equal opportunities policy. For proxy variables, we used the two questions that related to equal opportunities practices in the 1990 survey, namely, whether the establishment monitored the ethnic composition of its workforce and whether it monitored the composition of its workforce by gender. We selected the SMEs that followed neither of these practices in 1990, and estimated the influence of their labour productivity, participatory practices, skills, workforce composition, employment and wage levels, unionization and industry in 1990 on the probability that they would have either or both practices in 1998. Again, the same estimation was performed for larger firms. The United Kingdom estimation remains tentative, however, because both survey rounds provided very imperfect indications as to whether the enterprise had an equal opportunities policy. Specifically, we do not know whether enterprises that collected information on the composition of their workforce by ethnic background and gender all had an equal opportunities policy. It could only be assumed that they were more likely to have one than other enterprises.

Determinants of the adoption of equal opportunities policies: Findings

Unsurprisingly, given the number of firms covered and the variables available, the estimations for the United Kingdom (table 7) show less significant fit and results than those found for Australia (table 8). There is no evidence that higher productivity may have led SMEs in the United Kingdom or larger firms in either country to adopt a policy. However, more productive SMEs chose to adopt equal opportunities policies in Australia, either because the enterprises felt they could afford it or because they were generally better managed. More participatory SMEs were not more likely to adopt a policy in either country. Profit-sharing schemes were even negatively related to the probability of adoption among Australian SMEs, whereas individual performance-linked pay had a positive effect. In contrast, the presence of a participatory scheme did affect the probability of adopting an equal opportunities policy among larger firms – positively in the United Kingdom and negatively in Australia.

Table 7. Determinants of the adoption of workforce composition monitoring by enterprises in the *United Kingdom* (balanced panel probit estimation: probability that enterprises that did not monitor in 1990 would do so in 1998)

	SMEs (fewer than 200 employees)		Non-SMEs	
	Coefficient	*t*-statistic	Coefficient	*t*-statistic
Constant	−3.088	(0.77)	−1.452	(0.99)
Performance				
Labour productivity	0.410	(1.17)	0.018	(0.10)
Participation				
Representative participation	0.601	(0.56)	0.938**	(2.49)
Bottom-up communication schemes	−0.374	(0.51)	0.466	(1.32)
Profit-related pay	0.218	(0.27)	−0.039	(0.11)
Human resource management and industrial relations				
Union density	−5.460*	(1.67)	−0.943*	(1.81)
Downward communication	−0.367	(0.36)	−0.876*	(1.93)
Job-related factors				
Fixed-term contracts	2.636	(1.02)	0.770	(1.57)
Freelance workers	0.673	(0.76)	0.075	(0.17)
Employee characteristics and skills				
Female	−0.262	(0.20)	1.314	(1.41)
Ethnic minorities	0.089	(0.12)	−0.471	(1.12)
Management	7.145	(0.87)	−6.036**	(2.03)
Technical	−1.617	(0.87)	2.067***	(2.78)
Supervisors	28.63**	(2.24)	4.346	(1.40)
Clerical	0.487	(0.76)	−1.881	(1.42)
Establishment controls				
Employment level	0.104	(0.13)	0.580**	(2.06)
Single workplace	0.323	(0.44)	−2.574	(1.61)
Proportion low pay	−0.022	(1.16)	−0.012	(1.37)
Observations	39		112	
Log likelihood	−18.044		−51.625	
Wald c^2	15.882		48.424***	
Pseudo R^2	0.3056		0.3193	

*, ** and *** denote statistical significance at the 10, 5 and 1 per cent levels, respectively.

Although union presence is not related to policy adoption in Australia, recent industrial action is, in both SMEs and larger enterprises. In the United Kingdom, by contrast, less unionized enterprises in both groups are more likely to adopt a policy. Workforce composition is unrelated to the adoption of a policy in all groups except among larger

Table 8. Determinants of the adoption of equal opportunities policies by enterprises in *Australia* (balanced panel probit estimation: probability that enterprises that did not have a policy in 1990 would have one in 1995)

	SMEs (fewer than 500 employees)		Non-SMEs	
	Coefficient	*t*-statistic	Coefficient	*t*-statistic
Constant	–1.963	(0.66)	–5.937	(1.56)
Performance				
Productivity	1.212***	(3.36)	0.656	(1.30)
Participation				
Joint consultative committee	0.095	(0.22)	–1.755**	(2.04)
Quality circles	–0.093	(0.19)	0.872	(1.37)
Team briefing	0.030	(0.07)	–1.675**	(2.12)
Profit-related pay	–1.893***	(2.78)	1.057	(0.88)
Human resource management and industrial relations				
Performance-related pay	0.808**	(2.01)	–1.051*	(1.88)
Family-friendly policies	0.123	(0.41)	0.112	(0.34)
Training	0.602	(1.50)	2.647***	(3.66)
Union has members	–0.416	(0.92)	–0.471	(0.92)
Industrial action	1.383***	(2.62)	1.477**	(2.08)
Job-related factors				
Control over allocation of work	0.226	(1.61)	0.471	(1.63)
Discretion over work	–0.124	(0.81)	–0.293	(1.19)
Control over pace	0.189	(1.20)	0.280	(1.41)
Shift work	0.611	(1.38)	0.403	(0.73)
Part-time work	0.002	(0.20)	0.058***	(2.82)
Employee characteristics				
Female	–0.001	(0.08)	–0.082***	(4.62)
Non-English-speaking background	–0.662	(1.47)	–2.065***	(3.26)
Professionals	0.016	(0.47)	0.098***	(2.51)
Para-professionals	–0.046	(1.29)	0.012	(0.36)
Tradespersons	0.005	(0.15)	0.076	(1.69)
Clerks	0.007	(0.15)	0.184***	(2.98)
Salespersons	0.014	(0.50)	0.054	(1.34)
Plant and machine operators	–0.008	(0.27)	0.077*	(1.67)
Labourers	0.018	(0.62)	0.085**	(1.99)
Establishment controls				
Single workplace	–1.300***	(3.31)	–2.000**	(1.99)
Demand for product expanding	–0.925***	(2.47)	0.075	(0.13)
Observations	120		100	
Log likelihood	–33.213		–35.340	
Wald c^2	70.37***		64.88***	
Pseudo R^2	0.4618		0.4791	

*, ** and *** denote statistical significance at the 10, 5 and 1 per cent levels, respectively.

Australian firms, where establishments with a lower proportion of female and/or ethnic minority employees have a higher probability of setting up a policy. This finding suggests that the policies of enterprises in that group may have a more pronounced desegregation objective than they do in other enterprises.

Performance effects

Discrimination, equal opportunities and productivity: Theory

Traditional economic theory suggests that wage discrimination – i.e. paying two equally productive individuals different wages – should not persist in a competitive labour market. This line of argument has spurred research in several directions.[14] It has been argued that labour markets are not fully competitive – for example, they may be segmented so that members of discriminated groups are crowded into certain markets and/or subject to monopsonistic power (see Barth and Dale-Olsen, 1999). An abundant empirical literature has shown that pay differences correlated with characteristics like gender and ethnicity could not be entirely explained by differences in, say, qualification or experience that would determine individuals' abilities. Pay differences could of course be explained by unobserved individual characteristics that make workers less productive (various reformulations of old prejudices have been suggested: women may not be interested in their paid work and shirk to care for their children; ethnic minority employees may not have a "work ethic", etc.).

Another explanation is that the marginal revenue product of workers from discriminated groups is lower (so that profit may be unaffected either way by discrimination) for various reasons that do not necessarily have to do with the personal abilities or effort of the individuals concerned. It has been suggested that women are segregated into less capital-intensive establishments (see, for example, Hellerstein and Neumark, 1998 and 1999). The explanation we have proposed elsewhere (Pérotin and Robinson, 2000) is that discrimination negatively affects "X-efficiency" – i.e. organizational efficiency – by causing labour misallocation, under-utilization of a part of the workforce, and a number of organizational problems connected with harassment. Both types of explanation might account for the negative relationship that is sometimes observed empirically between the proportion of employees from discriminated groups and enterprise productivity.

[14] See Altonji and Blank (1999) for a recent review of the abundant theoretical and empirical economic literature on discrimination.

If discrimination causes overall X-inefficiency, total factor productivity should also be affected, making the firm less productive over the relevant range. The types of discrimination that may cause X-inefficiency include appointment of individuals of discriminated groups to posts to which non-discriminated individuals would be appointed with less qualifications or experience, and under-utilization of or under-exposure to opportunities in a given post, resulting in lesser career prospects, lower performance bonuses, etc. In addition to lowering the productivity of the individuals concerned compared with their potential productivity, these forms of discrimination imply that selection for senior appointments and promotions is made from a more limited pool of applicants. Furthermore, other aspects of organizational productivity may be affected, as sexual and racial harassment are more likely to be a problem in a discriminatory environment.[15]

If discrimination causes X-inefficiency, effective equal opportunities plans should raise X-efficiency and therefore increase productivity by remedying the problems caused by discrimination. In addition, productivity may also be raised as various aspects of management are reviewed in pursuance of the policy and, say, more systematic search and assessment procedures are introduced in hiring and recruitment (Blau, Ferber and Winkler, 1998). The presence of an equal opportunities policy can therefore be expected to be associated with increased productivity. This increase should take two forms: first, productivity should increase overall, and second, the relationship between the presence of discriminated groups and establishment productivity should also improve as their contribution increases. In practice, however, equal opportunities practices may not be entirely effective. The effect on productivity may indeed depend on the extent to which the formal adoption of a policy is accompanied by measures that ensure its effective implementation.

Implementation may also be costly in other ways than through wage increases. As the policy is implemented, reviews and reorganization may at first disrupt productivity. An equal opportunity plan may also elicit negative responses from non-discriminated groups and result in a drop in their motivation and productivity. The overall effect observed could therefore be a drop in productivity.

Estimations of productivity effects

The WERS and AWIRS surveys provide qualitative measures of productivity, as assessed by the establishment manager in relation to

[15] See Pérotin and Robinson (2000) for a more detailed discussion of these points.

competitors or similar establishments in the industry. Although these measures have been shown to correlate well with quantitative assessments of establishment productivity, they cannot be used to estimate a production function in order to test our hypotheses precisely. Instead, we use estimation techniques that are appropriate for qualitative dependent variables – i.e. probit and ordered probit estimations – in which we estimate the influence of a variable on the probability that the answer falls into a given category (e.g. "low", "high" or "very high"). We also lack information on capital, but are able to introduce in the equations a number of variables reflecting work processes and technology that should adequately control for the relevant variation.

We test the three basic hypotheses that were presented in the preceding section. The first is that having an equal opportunities policy will increase productivity overall; the second is that having an equal opportunities policy will have a greater positive effect the higher the proportion of employees from discriminated groups (using information on the proportions of female/male employees, and employees from ethnic minorities for the United Kingdom). The third hypothesis is that a higher level of commitment to equal opportunities, as demonstrated by the presence of a greater number of equal opportunities practices, will result in higher productivity.

The general idea of the tests is to find out whether the presence of an equal opportunities policy is associated with increased productivity once other determinants of productivity are taken into account (e.g. skills, industry, human resource practices, industrial relations, technology, etc.). Because such an association might be entirely due to reverse causality – i.e. more productive enterprises deciding to adopt equal opportunities policies – we use panel estimation methods. These methods (here random effects, given the short size of the panel) make it possible to take into account persistent unobserved characteristics of individual enterprises such as generally better management, and to control to a large extent for the effects of these individual factors so that they are not mistaken for the effect of having an equal opportunities policy. For the United Kingdom, however, the sample of enterprises that has a panel dimension is quite small and, as indicated above, the information relating to equal opportunities practices that is available for both rounds of the survey is limited to the monitoring of workforce composition. For the United Kingdom, we therefore performed another set of estimations using the 1998 cross-section, for which we know whether the enterprise had a formal equal opportunities policy and what accompanying practices it had in place.

A potential though rarely recognized problem with estimating the effects of a voluntary practice on performance is that the practice may be abandoned if the enterprise finds it too costly to run. Unless the data include observations of firms that have the practice in one sample

period and abandon it in another sample period, estimations of performance effects based on data covering firms with and without the practice may therefore be positively biased. This potential problem is less severe in the case of equal opportunities practices than it is with schemes that are used as incentives, such as employee participation plans,[16] because many enterprises may adopt and keep voluntary equal opportunities policies for reasons that have nothing to do with short-term performance (e.g. to protect themselves against discrimination lawsuits). In the absence of sufficient panel data, a way to get around this problem is to look at a statutory scheme, because enterprises for which equal opportunities practices represented net costs would be obliged to keep them under the scheme.[17] We are able to do this by performing similar estimations in the United Kingdom context and in the Australian context, where legislation is considerably more constraining on larger firms. This approach has the additional advantage of offering a basis for direct comparison between two different policy options.

We would expect to find a weaker average performance effect under a statutory scheme than under a voluntary one because of the absence of an option to abandon the scheme. Under the statutory scheme, enterprises might also set up "cosmetic" schemes without content, i.e. formal policy statements not accompanied by implementation procedures. Cosmetic schemes would dampen the observed average effects of an equal opportunities scheme, regardless of whether it otherwise has positive or negative effects on performance. If equal opportunities practices were observed to have a negative effect on average under the statutory scheme, the implication for policy design would be that the policy would have to incorporate strong incentives and/or provide for monitoring to ensure compliance and minimize the incidence of cosmetic schemes. However, if the statutory scheme is observed to have positive effects on average, it may be inferred that enforcement should be easier. It is also possible that a statutory scheme will have stronger effects if it induces enterprises to set up more effective equal opportunities practices.

Findings

Our results for the United Kingdom are presented in tables 9a-9d, starting with the panel estimates in table 9a, followed by cross-section

[16] See Pérotin and Robinson (2003) for a review of the abundant literature on the effects of employee participation on productivity.

[17] In practice, compliance is not 100 per cent so the sample will include enterprises with and without a policy even among the group that has a statutory obligation to have the policy, but it is unlikely that an enterprise will abandon a statutory policy once it has started to comply.

estimates of the effect of having a policy (table 9b) combined with workforce composition effects (table 9c) and the number of accompanying practices (9d). For Australia, table 10a shows the panel estimates of the effect of having a policy, combined with workforce composition effects; table 10b also takes account of the number of accompanying policies.

Equal opportunities policies are found to have very few effects on productivity that are ever statistically significant in British SMEs. In contrast, equal opportunities policies have a positive and significant effect on productivity in Australian enterprises of both size groups as well as in larger United Kingdom firms. The existence of a policy is never found to have a (statistically significant) negative impact on productivity.

In the United Kingdom, the cross-section estimates suggest that there may be a slight positive association between equal opportunities policies and productivity in SMEs as the proportion of female employees increases. But no other effect is observed, whether on the cross-section or on the panel estimates.

More significant and positive effects are found for larger firms on the cross-section estimates for the United Kingdom. As shown by the estimations of the factors that determine those enterprises' adoption of equal opportunities practices, this is not due to reverse causality, as the practices do not seem to be adopted by more productive enterprises in that group. The effect of the policy is not increased in enterprises with more employees from discriminated groups (lines 3-5 of table 9c) or by having accompanying practices to implement the policy (table 9d). Indeed, having a high number of accompanying practices is actually associated with lower productivity, which could be due either to the organizational disruption caused by setting up the corresponding review mechanisms or to reverse causality, if enterprises that had a more severe discrimination problem found it necessary to set up more extensive plans.

The pattern of signs and significance for the other variables in the equations for larger firms in the United Kingdom is consistent with other estimations for that country, with representative participation (e.g. joint consultative committees) having a negative effect, and employee share ownership having a positive effect. Also in larger firms, however, a higher proportion of female employees is associated with higher productivity, a finding that contradicts both what one might have expected and our previous findings on the whole sample taken together (Pérotin and Robinson, 2000). As expected, the proportion of employees from ethnic minorities is associated with lower productivity.

The Australian results show equal opportunities policies to have positive and significant effects in both groups of enterprises (table 10a). These effects are strengthened by a higher number of accompanying policies, again in both size groups (table 10b). Otherwise the sign and

significance pattern of coefficients is in keeping with other Australian results (see Loundes, 1999) and differs in notable ways from the pattern observed for the United Kingdom, e.g. as to the effect of participatory schemes or of union density in SMEs.

In larger Australian enterprises, the effect of equal opportunities policies on productivity decreases as the proportion of female employees increases. This effect, which is the opposite of that expected, is associated with a positive relationship between the proportion of female employees and establishment productivity, as in larger British firms (the proportion of employees from non-English-speaking backgrounds has a positive effect in Australian SMEs and a negative one in larger firms). This finding may be related to our earlier observation that among larger Australian firms those enterprises that adopted equal opportunities policies between 1990 and 1995 had a more segregated workforce. If gender discrimination has negative effects on productivity and takes the form of segregation rather than poor treatment of female employees, then a higher proportion of female employees may be associated with higher productivity, and the effect of an equal opportunities policy on productivity would decrease as the number of female employees increases. Both this mechanism and the one we had originally hypothesized may be operating in certain enterprises. The relationships between discrimination and segregation, and between segregation and productivity, clearly need to be investigated further.

In summary, whether equal opportunities policies are voluntary or not, no negative effect on productivity is observed, whether in small or large enterprises, in either country. In fact, the policies are associated with positive effects in all groups of firms except British SMEs, where the effect is neutral. The strongest positive association is found among Australian enterprises, which are more regulated for equal opportunities than their counterparts in the United Kingdom. Moreover, this finding is most solid for larger Australian firms, for which there is no suspicion that the observed effects might be the result of reverse causality. This group also comprises the enterprises subjected to the strictest regulatory requirements in matters of equal opportunities. The most stringent regulatory regime thus seems to be associated with the strongest productivity effect, not the weakest, as might have been expected if some enterprises had set up cosmetic plans or had been constrained to maintain costly plans. These results suggest not only that the plans imposed by more stringent regulation do not undercut the productivity of target enterprises, but also that such plans are actually more beneficial than measures adopted voluntarily by enterprises under a non-constraining regime. It may be that the stricter obligations imposed by Australian legislation on larger enterprises are associated with better information or that they constrain the enterprises to adopt effective equal opportunities plans that improve their productivity.

Table 9a. Effects of monitoring composition of workforce on productivity in enterprises in the *United Kingdom* (balanced panel probit estimations (random effects):1990 and 1998 – dependent variable: productivity above average for comparable firms)

	SMEs (fewer than 200 employees)		Non-SMEs	
	Coefficient	*t*-statistic	Coefficient	*t*-statistic
Constant	–4.713	(1.262)	–0.451	(0.797)
Equal opportunities				
Monitoring of ethnic and/or gender composition of workforce	–0.199	(0.338)	0.309**	(2.222)
Participation				
Representative participation	–0.374	(0.568)	0.007	(0.053)
Bottom-up problem solving	–0.171	(0.279)	–0.151	(1.038)
Profit-related pay	0.506	(0.809)	0.034	(0.276)
Employee share-ownership	1.566	(0.592)	–0.120	(0.628)
Human resource management and industrial relations				
Downward communication	1.520	(1.649)	0.350	(1.178)
Trade union proportion	–0.194	(0.119)	–0.437**	(2.221)
Job-related factors				
Part-time work	1.402	(0.752)	0.601**	(2.096)
Employee characteristics and skills				
Female	–0.439	(0.476)	–0.004	(0.010)
Ethnic minorities	–0.669	(1.233)	–0.076	(0.548)
Unskilled	0.507	(0.257)	–0.583	(1.380)
Semi-Skilled	1.772	(0.776)	–0.343	(0.794)
Skilled manual	2.217	(0.932)	–0.376	(0.805)
Supervisory	–0.620	(0.080)	–0.511	(0.414)
Junior Technical	0.920	(0.230)	–0.251	(0.570)
Senior Technical	0.494	(0.089)	0.704	(0.921)
Management	6.946	(1.076)	–0.276	(0.271)
Establishment control				
Ln(employment)	0.561	(0.927)	0.072	(1.162)
Observations	98		564	
Groups	49		282	
Log likelihood	–55.25		–371.74	
Rho	0.662		0.335*	
Pseudo R^2	0.019		0.002	

*, ** and *** denote statistical significance at the 10, 5 and 1 per cent levels, respectively.

Table 9b. Effects of equal opportunities policies on productivity in enterprises in the *United Kingdom*, 1998 (ordered probit estimation – dependent variable: productivity against comparable firms)

	SMEs (fewer than 200 employees)		Non-SMEs	
	Coefficient	*t*-statistic	Coefficient	*t*-statistic
Constant	4.376**	(2.203)	0.128	(0.365)
Equal opportunities				
Equal opportunities policy	0.137	(0.776)	0.343***	(3.548)
Participation				
Representative participation	–0.399**	(2.251)	–0.535***	(5.164)
Bottom-up problem solving	0.162	(1.290)	0.235***	(3.381)
Profit-related pay	0.121	(0.703)	–0.146*	(1.923)
Employee share-ownership	0.290	(0.244)	0.414***	(5.570)
Deferred profit-sharing	0.404	(0.346)	0.175**	(1.974)
Human resource management and industrial relations				
Downward communication	–0.154	(0.843)	0.460***	(2.705)
Other financial participation	–0.090	(0.560)	0.081	(1.061)
Other entitlements	–0.062	(1.227)	–0.105***	(3.225)
Number of family-friendly policies	0.034	(0.404)	0.049*	(1.757)
Proportion of trade union members	0.571	(1.036)	0.133	(1.038)
Training	–0.053	(1.286)	0.031	(1.360)
Job-related factors				
Variability in work	0.378***	(2.710)	0.483***	(6.529)
Discretion over work	–0.179	(1.326)	0.491***	(4.359)
Control over pace	0.083	(0.675)	–0.512***	(4.433)
Shift work	–0.535***	(2.922)	–0.019	(0.240)
Part-time work	–0.707**	(2.066)	–0.563***	(3.122)
Weekly working time	0.010	(1.189)	0.019***	(4.747)
Employee characteristics				
Female	–0.315	(1.017)	0.947***	(5.183)
Ethnic minorities	–2.368	(1.312)	–1.413***	(4.390)
Disabled	4.925	(1.423)	0.473	(0.177)
Establishment controls				
Ln(Employment)	0.019	(0.157)	0.094*	(1.918)
Industry dummies	yes		yes	
Observations	310		804	
Log likelihood	–330.552		–822.584	

*, ** and *** denote statistical significance at the 10, 5 and 1 per cent levels, respectively.

Table 9c. Effects of equal opportunities policies on productivity in enterprises with workforce composition effects in the *United Kingdom*, 1998 (ordered probit estimation – dependent variable: productivity against comparable firms)

	SMEs (fewer than 200 employees)		Non-SMEs	
	Coefficient	*t*-statistic	Coefficient	*t*-statistic
Constant	4.707**	(2.353)	0.919***	(2.862)
Equal opportunities				
Equal opportunities policy	–0.390	(1.433)	0.253	(1.525)
EO × Female	0.844*	(1.795)	0.178	(0.458)
EO × Ethnic minorities	–1.193	(0.333)	0.591	(0.661)
EO × Disabled	4.937	(0.344)	–1.679	(0.162)
Participation				
Representative participation	–0.367**	(2.083)	–0.520***	(4.981)
Bottom-up problem solving	0.201	(1.548)	0.197***	(2.817)
Profit-related pay	0.064	(0.376)	–0.132*	(1.767)
Employee share-ownership	0.363	(0.303)	0.406***	(5.508)
Deferred profit-sharing	0.315	(0.260)	0.118	(1.325)
Human resource management and industrial relations				
Downward communication	–0.154	(0.843)	0.460***	(2.705)
Other financial participation	–0.035	(0.224)	0.085	(1.139)
Other entitlements	–0.034	(0.649)	–0.089***	(2.789)
Number of family-friendly policies	0.054	(0.656)	0.041	(1.481)
Proportion of trade union members	0.407	(0.668)	0.109	(0.844)
Training	–0.058	(1.397)	0.038*	(1.698)
Job-related factors				
Variability in work	0.426***	(2.864)	0.477***	(6.460)
Discretion over work	–0.196	(1.377)	0.490***	(4.228)
Control over pace	0.119	(0.941)	–0.460***	(4.033)
Shift work	–0.478**	(2.530)	0.021	(0.272)
Part-time work	–0.771**	(2.311)	–0.594***	(3.381)
Employee characteristics				
Female	–0.512	(1.577)	0.703*	(1.921)
Ethnic minorities	–1.691	(0.691)	–1.868**	(2.306)
Disabled	3.070	(0.895)	1.518	(0.151)
Establishment controls				
Ln(Employment)	0.031	(0.253)	0.091*	(1.874)
Industry dummies	yes		yes	
Observations	314		815	
Log likelihood	–332.491		–841.078	

*,** and *** denote statistical significance at the 10, 5 and 1 per cent levels, respectively.

Table 9d. Effects of equal opportunities practices on productivity in enterprises in the *United Kingdom*, with number of accompanying practices, 1998 (ordered probit estimation – dependent variable: productivity against comparable firms)

	SMEs (fewer than 200 employees)		Non-SMEs	
	Coefficient	*t*-statistic	Coefficient	*t*-statistic
Constant	4.734**	(2.315)	0.803**	(2.470)
Equal opportunities				
Equal opportunities policy	0.089	(0.550)	0.355***	(3.663)
Low number EO practices	0.196	(0.935)	–0.119	(1.620)
Medium number EO practices	0.272	(0.259)	–0.147	(1.030)
High number EO practices	–1.759	(1.550)	–0.458***	(2.844)
Participation				
Representative participation	–0.426**	(2.271)	–0.536***	(5.299)
Bottom-up problem solving	0.192	(1.505)	0.244***	(3.182)
Profit-related pay	0.153	(0.895)	–0.121	(1.599)
Employee share-ownership	0.153	(0.117)	0.391***	(5.244)
Deferred profit-sharing	0.383	(0.306)	0.132	(1.409)
Human resource management and industrial relations				
Downward communication	–0.154	(0.843)	0.460***	(2.705)
Other financial participation	–0.087	(0.539)	0.091	(1.228)
Other entitlements	–0.062	(1.194)	–0.077**	(2.267)
Number of family-friendly policies	0.060	(0.695)	0.059**	(2.140)
Proportion of trade union members	0.756	(1.321)	0.097	(0.703)
Training	–0.052	(1.260)	0.038*	(1.684)
Job-related factors				
Variability in work	0.387***	(2.699)	0.480***	(6.168)
Discretion over work	–0.143	(1.065)	0.465***	(4.095)
Control over pace	0.092	(0.741)	–0.450***	(3.913)
Shift work	–0.521***	(2.888)	0.028	(0.361)
Part-time work	–0.916***	(2.765)	–0.628***	(3.236)
Employee characteristics				
Female	–0.246	(0.865)	0.873***	(4.553)
Ethnic minorities	–2.248	(1.229)	–1.386***	(4.391)
Disabled	3.953	(1.167)	0.214	(0.077)
Establishment controls				
Ln(Employment)	0.046	(0.379)	0.104**	(2.153)
Industry dummies	yes		yes	
Observations	314		814	
Log likelihood	–331.513		–836.722	

*, ** and *** denote statistical significance at the 10, 5 and 1 per cent levels, respectively.

Table 10a. Effects of equal opportunities policies on productivity in enterprises in *Australia,* 1990 and 1995 (balanced panel probit estimations (random effects) – dependent variable: productivity above average for comparable firms)

	SMEs (fewer than 500 employees)		Non-SMEs	
	Coefficient	*t*-statistic	Coefficient	*t*-statistic
Constant	3.863***	(7.63)	–2.624***	(12.75)
Equal opportunities				
Equal opportunities policy	0.878***	(6.90)	1.092***	(17.50)
EO policy × Female	–0.002	(0.82)	–0.014***	(10.91)
Participation				
Joint consultative committee	–0.157	(1.57)	–0.063	(1.77)
Quality circles	2.057***	(10.36)	0.581***	(15.89)
Team briefing	–1.112***	(12.72)	–0.214***	(5.18)
Profit-related pay	1.957***	(11.17)	0.185***	(4.01)
Human resource management and industrial relations				
Performance-related pay	–0.187***	(2.79)	0.199***	(6.65)
Family-friendly policies	0.464***	(6.42)	0.264***	(12.72)
Training	–0.890***	(6.90)	0.041	(1.28)
Union has members	0.589***	(6.72)	–0.015	(0.35)
Industrial action	–0.406***	(4.25)	–0.185***	(4.53)
Job-related factors				
Control over allocation of work	–0.035	(1.38)	–0.020	(1.65)
Discretion over work	–0.067***	(2.57)	0.102***	(7.20)
Control over pace	–0.387***	(8.60)	–0.148***	(11.49)
Shift work	–0.507***	(6.83)	–0.299***	(9.87)
Part-time work	0.020***	(8.71)	0.001	(1.15)
Employee characteristics and skills				
Female	–0.019***	(6.36)	0.007***	(5.56)
Non-English-speaking background	0.493***	(4.24)	–0.539***	(14.83)
Professionals	–0.054***	(6.18)	0.003	(1.08)
Para-professionals	0.006	(0.99)	0.025***	(9.75)
Tradespersons	0.005	(0.91)	0.016***	(5.98)
Clerks	–0.028***	(3.94)	0.030***	(11.51)
Salespersons	–0.012***	(2.24)	0.021***	(8.47)
Plant and machine operators	–0.021***	(3.95)	0.014***	(5.85)
Labourers	–0.019***	(3.74)	0.020***	(8.46)
Establishment controls				
Single workplace	–0.708***	(7.09)	0.124	(1.73)
Demand for product expanding	0.897***	(7.81)	0.561***	(18.89)
Observations	120		318	
Groups	60		159	
Log likelihood	–4 241.285		–6 399.737	
s_m	1.104		0.001	
r	0.549		0.000	

*, ** and *** denote statistical significance at the 10, 5 and 1 per cent levels, respectively.

Table 10b. Effects of equal opportunities practices on productivity in enterprises in *Australia*, with number of accompanying practices, 1990 and 1995 (balanced panel probit estimations (random effects) – dependent variable: productivity above average for comparable firms)

	SMEs (fewer than 500 employees)		Non-SMEs	
	Coefficient	*t*-statistic	Coefficient	*t*-statistic
Constant	3.567***	(7.01)	–2.58***	(12.55)
Equal opportunities				
Equal opportunities policy	0.715***	(5.56)	1.056***	(16.79)
EO policy × Female	0.000	(0.06)	–0.013***	(10.18)
Number of accompanying practices	0.460***	(7.06)	0.178***	(11.15)
Participation				
Joint consultative committee	–0.230***	(2.26)	–0.066	(1.85)
Quality circles	2.094***	(10.25)	0.605***	(16.68)
Team briefing	–1.154***	(12.41)	–0.218***	(5.29)
Profit-related pay	2.061***	(10.93)	0.212***	(4.57)
Human resource management and industrial relations				
Performance-related pay	–0.252***	(3.64)	0.204***	(6.83)
Training	–0.885***	(6.88)	0.005	(0.16)
Union has members	0.599***	(6.69)	–0.053	(1.20)
Industrial action	–0.451***	(4.56)	–0.167***	(4.10)
Job-related factors				
Control over allocation of work	–0.029	(1.11)	–0.024	(1.94)
Discretion over work	–0.072***	(2.73)	0.098***	(6.91)
Control over pace	–0.390***	(8.66)	–0.140***	(10.86)
Shift work	–0.533***	(6.77)	–0.291***	(9.60)
Part-time work	0.021***	(8.88)	0.001	(0.96)
Employee characteristics and skills				
Female	–0.021***	(6.51)	0.007***	(5.51)
Non-English-speaking background	0.531***	(4.34)	–0.558***	(15.12)
Professionals	–0.053***	(5.98)	0.002	(0.94)
Para-professionals	0.010	(1.57)	0.026***	(9.81)
Tradespersons	0.009	(1.51)	0.016***	(6.21)
Clerks	–0.022***	(2.90)	0.031***	(11.72)
Salespersons	–0.008	(1.44)	0.021***	(8.47)
Plant and machine operators	–0.017***	(3.15)	0.014***	(5.96)
Labourers	–0.017***	(3.19)	0.020***	(8.52)
Establishment controls				
Single workplace	–0.726***	(7.09)	0.202***	(2.84)
Demand for product expanding	0.937***	(7.89)	0.553***	(18.57)
Observations	120		318	
Groups	60		159	
Log likelihood	–4 228.873		–6 418.593	
s_m	1.158		0.001	
r	0.573		0.000	

*, ** and *** denote statistical significance at the 10, 5 and 1 per cent levels, respectively.

Concluding remarks

The findings of the analysis conducted in this article indicate that equal opportunities policies and practices are more widespread in SMEs in Australia and the United Kingdom than might have been thought. Indeed, both countries have been encouraging such policies for a long time. It is also clear, however, that the incidence of equal opportunities policies and practices is lower among SMEs than among larger firms. Formal policies are in fact very common among large firms, whether the policies are voluntary or not.

Other equal opportunities practices that indicate a commitment to fighting discrimination, such as monitoring workforce composition, setting quantitative targets for discriminated group representation or offering equal opportunities training, are still not very widespread in any of the groups of enterprises. However, as far as can be seen given the limitations on the comparability of available data, such measures seem more frequent in Australian SMEs than in their British counterparts, possibly because a proportion of Australian SMEs is subject to the same, more constraining regulation as larger firms. As a result, Australian SMEs are in this respect closer to larger Australian firms than British SMEs are to larger firms in the United Kingdom.

It seems that more productive SMEs adopt equal opportunities policies in Australia, perhaps because they feel they can afford the policy or because they are better run. It is indeed less likely that they may do so under pressure from trade unions or to improve their workforce composition, since neither factor has a positive effect on an SME's likelihood to set up a policy in either country. In contrast, desegregation appears to be among the considerations that led larger Australian firms to adopt equal opportunities policies in 1990-1995.

Overall, equal opportunities policies are found to be associated with higher productivity in all groups of enterprises except British SMEs, on which the effect of the policies is neutral. Given our findings on the factors that lead firms to adopt the policies, it is clear that the productivity effects observed for larger enterprises cannot be attributed to reverse causality. In Australian enterprises, the higher the number of complementary implementation measures accompanying the formal policy, the stronger the effect. Overall effects on profit, however, remain uncertain, because any cuts in costs that may result from productivity gains may be offset by increased labour costs and policy implementation costs.

Our investigation of the adoption of the policies and their possible effects on performance does not suggest that more coercive legislation results in enterprises having to adopt practices that negatively affect their performance. On the contrary, positive effects seem to be strongest among those enterprises that are subject to the most stringent

regulatory requirements to set up equal opportunities plans, in addition to adopting a formal policy – namely, larger Australian firms. It may be the case that a stricter regulatory regime imposes a set of measures that ensure the plan has positive effects on productivity, since such effects are found to increase when more accompanying policies are implemented in Australia.

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