

# Unionism in the United States and Other Advanced OECD Countries

DAVID G. BLANCHFLOWER and RICHARD B. FREEMAN\*

*In this paper we compare the changing pattern of unionization in OECD countries, reviewing existing evidence and presenting new information on union-nonunion differentials in labor market outcomes in these countries. Our principal source of information are the micro data files of the International Social Survey Programme cross-country surveys of 1985–87. Our analysis shows that U.S. unions have a larger effect on wages than on other outcomes than unions in other OECD countries, and we argue that the high union premium in the United States has contributed to the decline in union density and divergence of the U.S. industrial relations system.*

MOST THEORIES OF LABOR IN capitalist economies stress the factors that lead workers to form unions to bargain with management over wages and conditions of work, producing similar labor relations among countries over time (Kerr et al., 1964). Yet far from converging to some modal type, trade unionism—traditionally the principal worker institution under capitalism—developed differently among Western countries in the 1970s and 1980s (Freeman, 1989). The proportion of workers represented by unions fell precipitously in the United States. It also dropped, though to a lesser extent, in Japan, the Netherlands, and the United Kingdom (during the Thatcher years), and France, while increasing or maintaining high levels in most Continental European countries and in Canada and Australia. The divergence in union density occurred despite increased trade, communications, production by multinational firms, and technological transfer and capital flows among countries that ought to have exerted greater pressures for convergence in labor institutions than in earlier decades when there were tighter national boundaries.

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\*The authors' affiliations are, respectively, National Bureau of Economic Research, Dartmouth College and Centre for Economic Performance, and National Bureau of Economic Research and Harvard University

In this paper we explore the dimensions of the divergence in union representation between the United States and other advanced OECD countries in the 1970s and 1980s and relate these differences in density to differences in the economic effects of unionism across countries during this time. Arguing that the high union wage premium in the United States has contributed to the decline in U.S. density, we suggest that U.S. unions must make major tactical and policy innovations to regain strength in the private sector while the nation will have to develop new industrial relations institutions to guarantee workers a voice in workplace decisions.

### The Economic Environment and Unionization in the 1970s and 1980s

The rapidly changing economic and political environment of the 1970s and 1980s placed union movements in the developed world under stress unprecedented since the depression of the 1930s. The following were the major changes:

1. A slowdown in world economic growth and productivity and the increased inflation following the 1970s oil shocks, which created adverse labor market situations in virtually all Western countries: Unemployment rates skyrocketed, particularly in Europe; unemployment consistent with a given level of job vacancies rose; real wages fell for blue-collar workers, particularly in the United States; and unions in several countries took real wage cuts in the 1980s in order to stimulate employment.<sup>1</sup>

2. The composition of employment shifted from traditionally highly unionized to nonunion sectors and workers. The share of employment in manufacturing dropped almost everywhere, while the share of employment in white-collar work grew, producing a labor force for whom many traditional union issues were irrelevant. The female proportion of employment rose; the level of workers' schooling increased; and the age structure of the workforce changed as the baby boom generation entered the labor market. Since the workplace needs of white-collar workers, women, and more educated and younger workers differ somewhat from those of prime-age, male, blue-collar workers, who built most union movements, new tactics and policies were needed to attract these workers to the labor movement.

3. Labor markets became increasingly internationalized, as the trade

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<sup>1</sup>The United Kingdom is a striking exception, with substantial real wage gains through the 1980s. The gain in real wages of Japanese workers through the 1980s was expected, given the rapid growth of the Japanese economy and low rates of unemployment

component of the GNP grew sharply, immigration increased, and capital markets became more global (Freeman, 1988a). The United States lost its lead in world technology and productive know-how, eliminating a source of potential economic rents for American workers.

4. Collectivist and socialist ideologies lost favor to individualistic market ideologies. Reagan broke the air traffic controllers' strike in the United States, and Thatcher introduced tough labor legislation in the United Kingdom and defeated the mineworkers' union in a protracted dispute. Indicative of the change in political climate, labor parties in Australia and New Zealand adopted market-oriented economic policies, as did most governments in Western Europe.

Thus, in the 1980s, the social and economic environment became increasingly hostile to unionism and to many traditional union practices and policies. In this environment U.S. unions suffered grievous losses in their representation of workers in the private sector, with density falling to 1920s and 1930s levels. From this scenario, one might expect unions to be in rapid retreat in most other advanced OECD countries as well, but this expectation is erroneous. The available data on union density in developed countries, while far from perfect, show a divergent pattern of change across countries. As Table 1 demonstrates, density declined dramatically in the United States and moderately in Japan and France in the 1970s and the 1980s; fell in the United Kingdom, the Netherlands, and Italy in the 1980s after increasing in the 1970s; but rose in the 1970s and remained at historically high levels in many other countries. The unweighted average level of density for countries exclusive of the United States grew by 5 percentage points from 1970 to 1986–87. The difference in density between the United States and the other countries more than doubled: In 1986–87 U.S. density was 36 points below the average compared with 17 points below the average in 1970. Moreover, the decline in U.S. union density from rough equality with Canadian density to less than half the Canadian rate shows that the divergence represents more than the disparate development of different kinds of unionism. After all, the United States and Canada have similar industrial relations systems, with many of the same employers and unions operating in both countries.

There are, of course, problems with comparing the figures in Table 1. The definition, meaning, and sources of membership data differ across countries (Walsh, 1985; Visser, 1989) in ways that can bias trends as well as levels. The British data, for instance, may understate the 1980s fall in density because some unions exaggerated membership to maintain high representation on the Trade Unions Congress Executive Committee and in the Labour Party. By contrast, the Italian data may overstate the 1980s

TABLE 1  
 UNION MEMBERSHIP OF NONAGRICULTURAL WORKERS AS A PERCENTAGE OF  
 NONAGRICULTURAL WAGE AND SALARY EMPLOYEES, 1970-86/87  
 (percentages)

Country	1970	1979	1986-87	1970-79	1979-86	1970-87
With sharp rises in density						
Denmark	66	86	95	+20	+9	29
Finland	56	84	85	+28	+1	29
Sweden	79	89	96	+10	+7	17
With 1970s rises in density stable in 1980s						
Belgium	66	77	76	11	-1	10
Ireland	44	49	51	5	2	7
West Germany	37	42	43	5	1	6
Australia	52	58	56	6	-1	5
Canada	32	36	36	4	0	4
Switzerland	31	34	33	3	-1	2
Norway	59	60	61	1	1	2
With 1970s rises in density decline in 1980s						
Italy	39	51	45	12	-6	6
United Kingdom	51	58	50	7	-8	-1
New Zealand	43	46	41 <sup>a</sup>	3	-5	-2
With declining density						
Austria	64	59	61	-5	2	-3
Netherlands	39	43	35	4	-8	-4
France	22	20	17 <sup>a</sup>	-2	-3	-5
Japan	35	32	28	-3	-4	-7
United States	31	25	17	-6	-8	-14
Unweighted average (exclusive of U S )	48	54	53	6	-1	6
Deviation of U S from un- weighted average	-16	-28	-34	-12	-7	-20

SOURCES U S Department of Labor, Division of Foreign Labor Statistics, "Union Membership," September 1988, additional figures from Centre for Labour Economics, OECD data file, London School of Economics, Visser (1989), and R. Bean (1989), pp 171, 159

<sup>a</sup>Data available only for 1985

drop in density due to increasing membership in autonomous union groups in the public sector and among foremen and lower level management unassociated with the major federations. The U.S. figures mix two opposing trends: a precipitous fall in density in the private sector (to a bare 12.5% in 1989) and growing unionism in the public sector. These and other problems notwithstanding, there is no gainsaying the finding in Table 1

that the United States has “taken a different road” in industrial relations from that of most developed countries. In the private sector, the United States has gone a long way toward the union-free nirvana of the rabid opponents of trade unionism.

### International Social Survey Programme Data

To see if U.S. unionism affects economic outcomes in ways that may help explain its extraordinary drop in density, we examine the effect of unions on economic outcomes in advanced OECD countries, using data from the International Social Survey Programme (ISSP). The ISSP is a program of cross-national collaboration, carried out by national research institutes that conduct annual surveys of social attitudes and values.<sup>2</sup> It coordinates national social science surveys to produce a common set of questions asked in identical form in the participating nations. Thus, it permits us to compare union membership and estimate the effects of unions on outcomes from comparable micro files that had not been possible before. In 1990, the group consisted of 11 nations, five of whom provided information on union membership. In addition, in 1987 Switzerland ran an equivalent survey that also contains information on union membership.

As a first step toward analyzing the ISSP data, we calculated unionization rates for workers with different characteristics in the six countries with unionization data<sup>3</sup> (see Table 2). The density figures in the “All” column corroborate the country pattern in Table 1, showing in particular that the United States had by far the lowest rate of organization (18% vs. an unweighted average for the other countries of 44%). Given the problems of

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<sup>2</sup>The genesis of the survey is as follows. In late 1983, Social and Community Planning Research (SCPR) in London started a social indicator series—the British Social Attitudes Surveys (BSA)—which is similar to the General Social Survey (GSS) of the National Opinion Research Center (NORC), University of Chicago. The Nuffield Foundation funded international contacts with GSS and the Zentrum fuer Umfragen Methoden und Analysen (ZUMA) in Mannheim; ZUMA conducts its own social indicators study, the Allgemeinen Bevoelkerungsumfrage der Sozialwissenschaften (ALLBUS). In 1984 ISSP was formed with an additional member—Australia. The group agreed to (1) jointly develop topical modules dealing with important areas of social science, (2) carry a module of a 15-minute self-completion supplement to their regular national surveys, (3) include a common core of background variables, and (4) make the data available to the social science community as soon as possible. Each nation agreed to fund its own data collection and bear any costs that it incurred. ISSP's character, then, is shaped by the advantages and limitations of a small module of identical questions added to existing annual or biennial social surveys. By 1989 there were 11 participating nations. Switzerland is not one of the countries participating in the ISSP, but a team at the Sociologisches Institut der Universitat Zurich replicated the 1987 module and has kindly provided us with the data.

The ISSP data are archived with the ZentralArchiv at the University of Koln. For initial analyses of the ISSP data, see “British Social Attitudes: The International Report,” in Jowell et al. (1989).

<sup>3</sup>We shall refer to Switzerland as one of the ISSP countries although, as noted, the Swiss are not official participants in the cross-country data set.

TABLE 2  
UNION MEMBERSHIP ACROSS COUNTRIES  
(percentages)

	Australia	Austria	West Germany	United Kingdom	United States	Switzerland <sup>b</sup>	Unweighted Average	Deviation of U S
All	54	49	33	47	18	36	44	-26
Male	56	56	40	52	22	42	49	-27
Female	51	39	21	40	13	24	35	-22
Years of schooling								
10 or less	52	47	37	50	20	35	44	-24
11-12	56	55	26	40	21	36	42	-21
13 or more	49	47	25	52	15	40	42	-27
Age of workers								
18-24	52	37	24	36	9	28	35	-26
25-44	57	53	33	46	17	36	45	-28
45 or more	48	55	38	53	22	41	47	-25
Part time	37	12	9	23	9	<sup>d</sup>	20	-11
Full time	55	51	34	50	18	36	45	-27
Manual	56	57	44	53	30	n/a	53	-23
Nonmanual	45	44	27	42	13	n/a	40	-27
Manufacturing	43 <sup>a</sup>	52	37	48	25	n/a	45	-20
All other	47 <sup>a</sup>	49	31	46	16	n/a	43	-27
Public sector	71	74	44 <sup>c</sup>	75	20	62	58	-38
Private sector	42	48	33 <sup>c</sup>	31	15	26	36	-21
No. of observations	2,195	1,369	2,130	2,011	1,968	512		

SOURCE: Tabulated from International Social Survey Programme data

<sup>a</sup>1986 data only

<sup>b</sup>1987 data only

<sup>c</sup>1985 and 1987 data only

<sup>d</sup>Small number of observations

comparability of union figures, the similarity between these data and the figures in Table 1 is reassuring. The ISSP data also show that men, full-time workers, manual workers, and public-sector workers are relatively highly unionized in all countries. By contrast, there are only moderate differences in density between highly educated and less educated workers and between employees in manufacturing and in the rest of the economy. The reason is high unionization in the public sector (included in the "All other" industry grouping), where many educated workers are employed. By the mid-1980s union members in the developed countries were increasingly public sector, educated, and nonmanual (Freeman, 1989, Table 2). Finally, while younger workers (those aged 18–24) are underrepresented in unions in all the countries, their level of unionization in the United States, 9 percent, is exceptionally low compared with a 35 percent average union density in the other countries.

### What Unions Do Across Countries

Labor relations differ among countries in ways that go beyond crude unionization rates. In the United States, thousands of local unions bargain over contracts often running to 200 or more pages that typically set local members' wage rates. In Scandinavia, unions often negotiate national wage agreements with employer associations and enter agreements with the government and employer federations that link wage settlements to national economic policies. Australian unions argue wage cases before arbitration tribunals and are the mainstay of the Labour Party. French and West German unions negotiate industry or regional agreements whose terms the Ministry of Labor can extend to nonunion workers. In Japan company unions bargain at the firm level and engage in the *Shunto* Offensive to determine national wage patterns. We expect differing arrangements to produce different economic outcomes, notably on wages, which in turn can affect the development of unionism.

We assess country differences in union effects on wages by estimating log wage equations and by comparing coefficients of variation for union and nonunion workers from the ISSP *micro* data set. This method of analyzing how national industrial relations affects outcomes differs from studies that link taxonomies of those systems to *macroeconomic* variables (Crouch, 1985; Bruno and Sachs, 1985; Grubb et al., 1983; Calmfors and Driffil, 1988; Freeman, 1988b). Our major finding is that *U.S. unions have much greater effects on wages than have unions in other countries but have roughly comparable effects on other measured outcomes*. The large union

wage effect gives U.S. management an exceptional profit incentive to oppose unions, and is a major reason for U.S. unionism declining more than that for other countries.

*Union wage effects.* To see if unionism has different effects on wages in different countries, we estimated least squares earnings equations for the six countries. The dependent variable in each regression is the log of gross monthly wage and salary earnings. To maintain comparability across countries, we included regressions with only the most basic control variables: experience (age-schooling-5), experience squared, education, sex, and, in some cases, industry dummy variables. We use least squares because more complicated structural models yield unreliable estimates of union effects that add little to our knowledge (Freeman and Medoff, 1981; Lewis, 1986).<sup>4</sup>

Table 3 presents our estimated union-nonunion wage differentials for each country, the average union differential for all countries except the United States, and the deviation of the U.S. differential from that average. Complete regressions are reported in Table A1 of Appendix A. The first thing to note about the differentials is that they accord well with estimated union wage effects for the limited countries for which union effects have been estimated in other data sets. Our 0.22 ISSP-based estimate for the United States is in the range of Current Population Survey-based estimates of union-nonunion wage differentials for the United States (Freeman and Medoff, 1981; Lewis, 1986); our 0.10 ISSP-based estimate for the United Kingdom is within the 0–10 percent range reported in extant British studies (Blanchflower, 1991; Blanchflower and Oswald, 1988c)<sup>5</sup>; while the 0.08 Australian estimate is in the 7–10 percent range for that country (Mulvey, 1986; Kornfeld, 1990). These similarities validate the ISSP as a survey for

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<sup>4</sup>The reason is that such models require correct specification of the structure of a complex system, and they yield wildly divergent results depending on the structure chosen. While one can criticize ordinary least squares analyses for failing to take into account such issues as simultaneity in unionization and outcomes, selectivity of union members, etc., these analyses do provide a robust description of the patterns in the data. Moreover, to the extent that selectivity, simultaneity, and related problems are the same across countries, comparisons of union-nonunion differentials across countries may well be valid despite these problems.

<sup>5</sup>As a further check on the validity of the ISSP-based estimates for the United Kingdom, we estimated log earnings equations, using data from the British Social Attitudes Surveys of 1983–87. These provide a much larger sample from which to estimate union wage effects than the ISSP for the United Kingdom, which is a subset of these surveys (see Table A1 in Appendix A). The resulting coefficients on unionism are quite similar to those in our ISSP regressions (full results are reported in Table A1).



TABLE 3  
 MULTIVARIATE REGRESSION ESTIMATES OF DIFFERENCES IN THE LOG<sup>a</sup> EARNINGS  
 OF UNION AND NONUNION WORKERS, 1985-87  
 (standard errors in parentheses)

Country	Regressions Without Industry Dummies	Regressions with Industry Dummies
United States	0.22 (.05)	0.18 (.05)
United Kingdom	0.10 (.03)	0.10 (.02)
West Germany	0.08 (.02)	0.06 (.02)
Austria	0.07 (.03)	0.05 (.03)
Australia	0.08 (.04)	n a
Switzerland	0.04 (.05)	n a
All except U.S.	.08	0.07
Deviation of U.S. from others	.14	0.11

SOURCE: Tabulated from International Social Survey Programme data. See Appendix A, Table A1.  
<sup>a</sup>Log refers to the natural logarithm.

assessing the effects of unionism on wages across countries. The estimated wage union effects for Austria, West Germany, and Switzerland (for which we have no other estimates) show only modest union effects.

Given centralized wage-setting procedures in Austria (an exemplar corporatist economy) and in Australia (where arbitral decisions affect all workers) and the extension of union wage agreements to nonunionized workers in West Germany, one may question the plausibility of the estimated relation between unionism and wages in these countries. How do unions win wage advantages for their members in these settings? There are two mechanisms for doing this: wage drift at plant levels, which is potentially more important for unionized workers; and the speed of adjustment of wages toward nationally determined levels, potentially faster where unions are stronger. In Australia, both mechanisms operate: Some unions gain "over-award" pay for members, and the better organized workers lead in the timing of their wage settlements. Wage drift has long been important in Europe and the subject of attention in West Germany, Sweden, and the Netherlands.

The most striking finding in Table 3 is, however, *not* the modest union wage estimates in the European countries and Australia, but rather *the high*

*union-nonunion differential in the United States.* The U.S. differentials of 0.22 in column 1 and 0.18 in column 2 are 2.5 times as great as the unweighted average differential for the other five countries. Moreover, evidence on union-nonunion wage differentials for Japan and Canada, not included in the ISSP data, shows that this pattern also holds true for them. Estimated union wage differentials in Japan are more like those in Europe and Australia than in the United States. In Japan union wage effects are small except for women, presumably because the Shunto Offensive sets wage patterns for the entire country, and union effects on bonuses and severance pay do not come close to producing a differential of U.S. magnitude (Nakamura et al., 1988; Osawa, 1989). Even in Canada, with an industrial relations system similar to the United States', non-ISSP estimated differentials appear to be smaller than comparable estimated differentials in the United States—1970s and 1980s differentials on the order of 10–20 percent (Gunderson, 1982; Simpson, 1985)—compared with 20–25 percent differentials in the U.S. Current Population Survey (Freeman and Medoff, 1981; Lewis, 1986). In short, U.S. unionism produces greater union-nonunion wage differentials than unionism in other advanced countries.

*Wage dispersion.* Until recently, the direction of the union effect on wage dispersion was subject to controversy because unionism has both positive and negative effects on dispersion. Raising the wages of organized workers relative to otherwise comparable, less organized workers increases wage inequality—a point stressed by Milton Friedman (1962). On the other hand, by pushing standard rate wage policies, unions reduce dispersion among organized workers, and by increasing the wages of union manual workers relative to nonunion nonmanual workers, unions also lower inequality. The available micro data sets in the 1970s for the United States showed that the lower dispersion of pay among union workers and between white- and blue-collar workers in unionized settings dominates the increased dispersion because of the union differential on otherwise comparable workers to produce a net reduction in wage inequality (Freeman, 1980a, 1982). Is this a general feature of unionism?

The coefficients of variation in earnings of union and nonunion workers, shown in Table 4, suggest that the reduction in inequality is not unique to U.S. unionism. In each country the coefficient of variation is lower among unionists than among nonunionists and for manual and nonmanual workers. The separate analyses of manual and nonmanual workers are important here, as they allow us to rule out the possibility that the differences in dispersion are due to differing union and nonunion shares of manual and nonmanual employment, as opposed to genuine union effects on pay in-

TABLE 4  
 COEFFICIENTS OF VARIATION IN EARNINGS, UNION  
 AND NONUNION MANUAL AND NONMANUAL WORKERS

Country	All Workers			Manual Workers			Nonmanual Workers		
	Union	Nonunion	Diff	Union	Nonunion	Diff.	Union	Nonunion	Diff
United States	58	81	-23	52	69	-17	63	83	-19
United Kingdom	53	74	-21	51	77	-16	52	71	-19
West Germany	43	64	-21	38	52	-14	47	66	-19
Austria	43	60	-17	31	46	-15	47	68	-21
Australia	56	65	-9	44	50	-6	48	63	-15
Switzerland	46	85	-39	—	—	—	—	—	—

SOURCE: Tabulated from International Social Survey Programme data

equality.<sup>6</sup> Moreover, in contrast to the finding of greater union-nonunion wage differentials in the United States in Table 3, the union-nonunion differences in coefficients of variation in the United States are similar in magnitude to those in the other countries, except for Australian manual workers, whose small union-nonunion difference is the exception.<sup>7</sup>

Our finding that unionism is associated with lower earnings dispersion outside the United States is consistent with Metcalf (1990) and Blanchflower and Oswald (1988a), who report lower wage inequality among union than nonunion workers in the United Kingdom. Kupferschmidt and Swidinsky (1989) report a similar result for Canada in cross-section and longitudinal data. Consistent with our small estimated effect of unionism on dispersion in Australia, Kornfeld (1990) reports only modest union-nonunion differences in variances of earnings among young Australian workers. Evidence on modes of wage payments in British firms suggests, moreover, that British unions lower dispersion by reducing merit/indi-

<sup>6</sup>For a full analysis, it is necessary to decompose the difference in dispersion of pay into the part due to differences in characteristics in workers, the part due to union effects on the impact of characteristics on pay, and the part due to union effects within groups having the same characteristics. U.S. studies that do a full decomposition find that differences in characteristics account for only part of the total differential (Freeman, 1980a, 1982)

<sup>7</sup>In addition to reducing dispersion of wages for specified groups of workers, unionism in the United States has been found to reduce the effect on earnings of wage-determining characteristics such as education. To see whether foreign union movements also "flatten" earnings equations, we estimated separate earnings equations for union and nonunion workers in the ISSP data set. The estimates in Table A1 in Appendix A reveal a complex pattern. U.S. unionism reduces the effect of education but not the effect of gender on earnings. Unionism in West Germany, Australia, and Switzerland reduces sex but not education differentials.

vidual pay determination just as do U.S. unions. In the United Kingdom, unionized firms are 16 (manual) to 28 (nonmanual) percentage points less likely to use these pay policies than nonunion firms (Blanchflower and Oswald, 1988a). Comparable U.S. figures show a 23-point difference in the use of merit/individual performance pay between union and nonunion firms (Freeman, 1982).

*Nonwage effects of unionism.* Since the ISSP lacks information on nonwage outcomes that unionism might influence, we rely on other studies to assess country differences in what unions do to employment, provision of fringes, job tenure/turnover, productivity, technical change, and profits. As these comparisons are based on differing data and statistical models, they are subject to more uncertainty than those in Tables 3 and 4, particularly with regard to estimated magnitudes. With this understanding, our reading of other studies supports the generalization that *unions overseas had similar effects on nonwage outcomes as U.S. unions.*

Consider first the effects of unionism on employment and the growth of employment. Consistent with the existence of a sizable union wage effect in the United States, there is evidence that the presence of unions results in a decrease in employment in the private sector.<sup>8</sup> Leonard (this volume) and Freeman and Kleiner (1990a) report negative effects of unionism on employment; Freeman and Medoff (1984) and Allen (1988) find that the firms substitute workers not covered by collective bargaining for union members, reducing employment of those members; and Carter et al. (1990) report slower growth of unionized employment in industries with higher union wage differentials. For the United Kingdom, which ranks second in the estimated union wage effect (see Table 3), Blanchflower et al. (1991) find a substantial negative union effect on employment growth from 1980 to 1984.<sup>9</sup> We are unaware of studies of union employment effects in other countries.

With respect to fringe benefits, virtually all U.S. studies show that when there are unions, fringe benefits increase, particularly pension benefits (Freeman and Medoff, 1984). Studies of other countries yield a similar finding. For Great Britain, Millward and Stevens (1986) and Green et al.

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<sup>8</sup>The U.S. data show higher employment in unionized settings in the public sector. See Freeman (1986) and Freeman and Ichniowski (1988). This is attributed to the role of unions in raising demand for public services and increasing public-sector budgets for unionized activities.

<sup>9</sup>Whether the U.S. and British union effects on employment growth reflect short-term adjustments or long-term slower growth rates in unionized workplaces is open to question (Wadhvani, 1989; Pencavel, 1989).

(1985) report that unionism raises fringe benefits.<sup>10</sup> For Canada, Kupferschmidt and Swidinsky (1989) find that pensions are more likely under unionism. For Japan, Nakamura et al. (1988) report that the labor costs of bonuses and severance pay are higher in unionized firms. For Australia, Kornfeld (1990) finds greater probabilities of pensions for unionized than nonunion workers.

Turning to job tenure and quits, the cross-country evidence also yields results comparable with those for the United States. Muramatsu (1984) and Osawa (1989) find markedly lower quits in union than in nonunion sectors in Japan. Elias and Blanchflower (1989) report greater tenure among unionists in the United Kingdom than among otherwise comparable nonunion workers. For Australia, Kornfeld (1990) reports union effects on tenure and quits among young workers that appear, if anything, to be larger than those found among young Americans. We know of no study that rejects the union "exit-voice" trade-off for any country.

Estimates of the effect of unionism on productivity are subject to controversy. Most U.S. studies indicate a positive union productivity effect (see the summaries in Belman, 1989, and Freeman, 1990), but there are enough counter-examples (see Hirsch, 1991a) to suggest that it is the *state of labor relations rather than unionism and collective bargaining per se that determines productivity*. Limited overseas studies support this finding. Muramatsu's analysis (1984) for Japan found a positive union coefficient comparable with the Brown-Medoff (1978) estimate for the United States, but it may not have adequately controlled for the effects of firm size on productivity (in Japan unionization is concentrated in large firms). Whether productivity is higher or lower under unionism in the United Kingdom is the subject of debate. Metcalf (1990) interprets early 1980s evidence as indicating that productivity is lower under unionism, but he notes that productivity grew

<sup>10</sup>Exceptions to this in the United Kingdom are the provision of company cars (see Green et al., 1985) and of private medical services, as indicated in the following table using data from the 1987 British Social Attitudes Survey.

	All	Union	Nonunion
Public and Private Sectors	18	13	22
Manual	10	12	9
Nonmanual	23	14	31
Private Sector	21	14	24
Manual	11	14	10
Nonmanual	28	15	32

We interpret the negative relation between unionism and the provision of private medical coverage as reflecting the commitment of British unions to the National Health Service

more rapidly in unionized settings thereafter, potentially erasing the early 1980s productivity gap. Callaghan (1989) and Nolan and Marginson (1990) disagree with Metcalf's assessment. Our reading is that the British evidence is inconclusive, indicating that even in a country whose union structure has long been lambasted as inefficient, it is difficult to find compelling evidence for negative union productivity effects.

Studies of productivity change and technological progress for the United States have yielded three basic findings: (1) productivity growth is modestly and statistically insignificantly slower in unionized settings (see Belman, 1989, for a summary of studies); (2) new technologies are adopted as rapidly in union as in nonunion settings (Eaton and Voos, 1989); (3) R&D and investment spending are lower under unionism (Hirsch and Link, 1987; Hirsch, 1991a). Studies for the United Kingdom and Canada confirm some but not all of these findings. They show that unions do not adversely affect the speed of adaption of new technology (Daniel, 1987; Betcherman, 1988) and that the United Kingdom has lower R&D-to-sales ratios in more heavily unionized industries (Ulph and Ulph, 1989).

By contrast, British evidence that union firms had faster increases in productivity during 1980–84 than nonunion firms (and had similar rates of increase in other years) runs counter to U.S. findings, as does evidence that unionism is unrelated to investment (Wadhvani, 1989). As neither the U.S. nor the British studies contain adequate controls for the age or maturity of union and nonunion plants and industries, we are leery of interpreting the different results as reflecting genuine differences in union impacts. Perhaps they reflect the different development of unionism—the fact that British unions grew rapidly in the 1970s in new industries and plants, whereas U.S. unions failed to organize new firms and sectors and thus were concentrated in parts of the economy facing slow productivity and limited investment. This interpretation is consistent with Hirsch's fixed-effects analysis (1990) of the lower productivity growth and investment in unionized firms in the United States; controlling for “firm effects” in various ways, Hirsch concludes that the observed correlations are due largely to the location of unions in declining sectors.

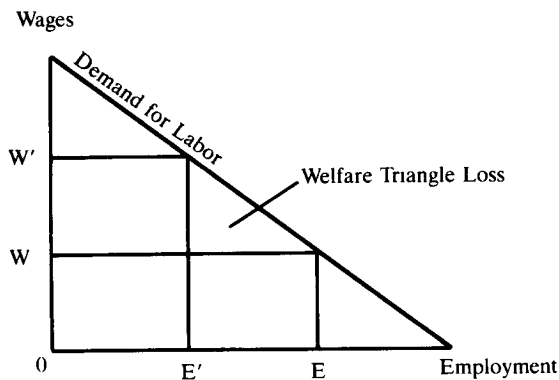
One of the most important findings from U.S. research has been that unionism is associated with markedly lower profitability (see Belman, 1989). Estimates of the effect of unionism on profits in the United Kingdom (Blanchflower and Oswald, 1988b; Machin, 1988) show a similar pattern. In the United States, the profits effect results from the large effect of unionism on wages, which exceeds the positive effect of unions on productivity. In the United Kingdom, the profits effect results from a moderate effect of unions on wages and no—or possibly a negative—

union effect on productivity. While the estimated profits effects are not sufficiently precise to determine whether unions reduce profitability more in the United States than in the United Kingdom, and while we lack estimates of the effects of unions on profits in other countries, we infer from wage and productivity findings that the profits effect is especially large in the United States. If the standard method of estimating union-nonunion wage differentials is reasonably correct (or biased in a similar way across countries), the 20–25 percent higher wage (and moderate productivity offset) implies that U.S. unionized firms will be at a significant cost disadvantage compared with foreign unionized competitors as well as with nonunion U.S. competitors.<sup>11</sup>

### Implications for American Unionism

While economic theory does not predict how a given union wage differential will affect the probability of unionization, it does predict how differentials alter the money incentive to the two players. The welfare calculus of union monopoly wage gains predicts that at any given differential, management has a greater *monetary* incentive to prevent unionization than workers have to organize. This is illustrated in Figure 1. Here, the union

Figure 1 Changes in the Union Wage Premium on the Intensity of Worker and Management Attitudes Toward Unionization



<sup>11</sup>As an example of the magnitudes involved, assume that unionized production workers are 20 percent of total cost of production in the United States and overseas. Then a 15-point greater wage impact translates into a three-point difference in costs. As profits are 15–20 percent of costs, the result is lower profitability on the order of 15–20 percent ( $= 3 - [15 \text{ or } 20]$ ).

premium  $WW'$  increases payments to workers by the rectangle  $0EWW'$  while reducing employer profits by  $0EWW'$  and by the triangle  $WW'EE'/2$ . The loss to the employer is greater than the gain to workers because the welfare triangle loss comes out of profits (Freeman, 1986a). In addition, because the fall in employment  $EE'$  depends on the wage differential, the welfare loss is a function of the square of the union premium (Freeman and Kleiner, 1990b),<sup>12</sup> so that the dollar incentive for management to oppose unions will rise at an increasing rate as the premium grows. By contrast, for workers considering unionization, the benefit from a greater wage differential should increase at a decreasing rate. This is because higher differentials reduce the probability that the worker remains employed at the organized workplace, lowering the benefit directly, and because the danger of losing the job should raise worker risk aversion.<sup>13</sup> With all else the same, increases in the union differential should eventually reduce density by increasing employer opposition more than they increase the monetary benefits of unionism to workers.

Is there evidence that the high U.S. union wage differential deterred union organizing in the 1970s and 1980s?

Studies of the union wage differential in the United States show that the differential of 15 percent or so in the 1960s and early 1970s jumped to 20–25 percent in the late 1970s and 1980s (Johnson, 1981; Lewis, 1986)—consistent with the fall in union organizing success and in density (Freeman, 1986a). In addition, the adverse economic developments described earlier arguably made union wage differentials more expensive to firms in the 1980s by reducing the economic rents they could share with workers; they also made unionism less attractive to workers by increasing the risk of job loss.

<sup>12</sup>If all the variables are measured in log units,  $EE' = -h WW'$ , where  $h$  is the elasticity of labor demand. Then the welfare loss is just  $h(WW')^2$ . With variables measured in absolute units,  $h$  is the slope of the demand curve rather than the elasticity.

<sup>13</sup>Formally, the worker will value potential unionization at

$$E'/E U(W'/W) + (1-E'/E) U(W - C) \tag{1}$$

where  $E'/E$  is the probability that the worker remains employed,  $W'/W$  is the wage advantage from organizing,  $W$  is the nonunion wage,  $C$  is the cost of finding a new job when displaced, and  $U$  is the workers utility function with  $U' > 0$  and  $U'' < 0$ . By the demand curve  $E'/E = -h W'/W$ , where  $h$  is the elasticity of labor demand. Then, differentiating (1) with respect to  $W'/W$ , we obtain the impact of changing the differential on the gain

$$\begin{aligned} & -h U(W'/W) + E'/E U' + h U(W - C) \\ & = E'/E U' + h [U(W - C) - U(W'/W)] \end{aligned} \tag{2}$$

Differentiating equation (2) with respect to the differential yields the following expression for the change in slope of the gain curve as the differential changes

$$E'/E U'' - 2h U' < 0, \text{ as asserted} \tag{3}$$



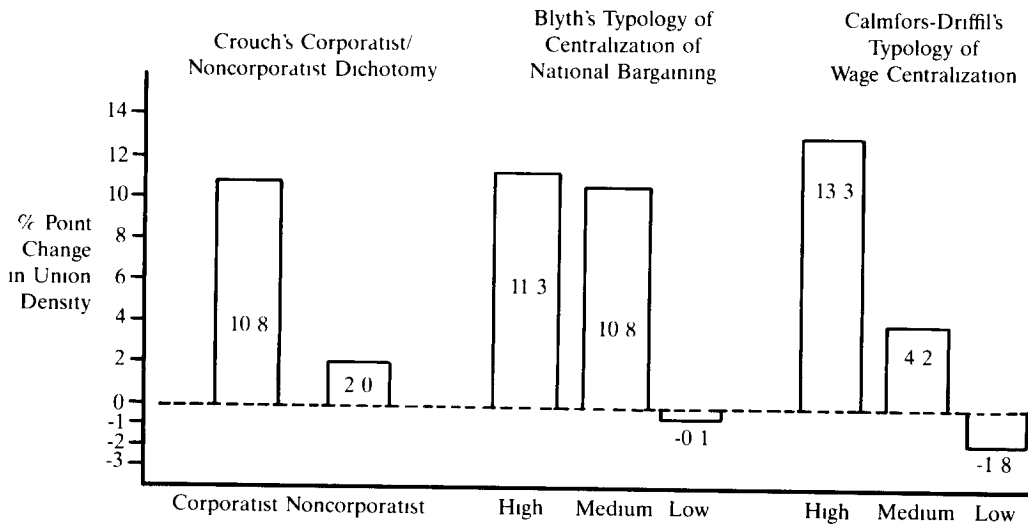
Consistent with these findings, Linneman and Wachter (1986) and Linneman et al. (1990) find that union differentials in an industry were positively associated with declines in union density.

The effect of premiums on the incentive to unionize is, however, only part of the story. Unions and management have, after all, to act on their incentives to influence outcomes. Here one must go beyond price theory to consider how legal and institutional arrangements affect the way unions organize and the tactics management uses to prevent organization. These arrangements differ across countries and can change sharply in short periods of time, as Thatcher's 1980s industrial relations laws illustrate (see Freeman and Pelletier, 1990). For present purposes, we simply note that the United States decides union membership through an adversarial electoral process at the plant level, which has evolved into a system where management has a greater say in unionization outcomes than it does in other countries.

*Centralized versus noncentralized wage-setting systems.* To use cross-country data to test the hypothesis that differences in union wage effects help explain the divergencies in density, we want, ideally, to compare estimated union wage effects by country to changes in density. However, as union wage premiums are available for only a limited number of countries, we follow a cruder procedure here. We contrast changes in union density in countries with centralized wage-setting institutions—where union wage effects are likely to be small—to changes in density in countries with decentralized (U.S. style) wage-setting institutions—where union wage effects are likely to be larger. As there is no accepted typology of national industrial relations systems, we use three classifications of centralization: a corporatist/noncorporatist dichotomy developed by Crouch (1985) and used by Bruno and Sachs (1985); an earlier classification by Blyth (1977); and a classification by Calmfors and Driffil (1988). By using three classifications, our results are independent of the judgment calls of different analysts. Our maintained hypothesis is that countries with centralized wage-setting systems have relatively small union premiums, giving management less incentive to oppose organization.

The results of our analysis, displayed in Figure 2, show that unions did better in countries with centralized as opposed to decentralized wage-setting systems in the 1970s and 1980s. Regression analyses contained in Freeman (1989) show that this finding is unaffected by controls for macroeconomic conditions across the countries. However, since neocorporatist or centralized systems differ in many ways from decentralized industrial relations systems—they are more likely to have a significant labor party, to

Figure 2 Changes in Union Density of National Industrial Relations Systems, by Country



**SOURCES** Crouch (1985) Corporatist countries include Austria, Denmark, Finland, the Netherlands, Norway, Sweden, Switzerland and West Germany  
 Noncorporatist countries include Belgium, Japan, New Zealand, United Kingdom, France, Italy, Australia, Canada and the United States

Blyth (1977) Countries ranked as High include Austria, Norway, Sweden and Denmark  
 Countries ranked as Medium include Finland, New Zealand, Australia, West Germany and Belgium  
 Countries ranked as Low include the Netherlands, Japan, France, United Kingdom, Italy, the United States and Canada

Calmfors and Driffil (1988) (We ranked the countries from their ratings )  
 Countries ranked as High include Austria, Norway, Sweden, Denmark, Finland and West Germany  
 Countries ranked as Medium include the Netherlands, Belgium, New Zealand, Australia and France  
 Countries ranked as Low include the United Kingdom, Italy, Japan, Switzerland, the United States and Canada

have favorable legal regulation of unions, and to give unions responsibility for delivering welfare state services, such as unemployment benefits<sup>14</sup>—one cannot conclude that unions have done better solely, or even primarily, because of lower wage premiums. What one can conclude is that differences in the nature of industrial relations systems *associated* with union wage premiums are linked with a country's unionization experience and that from this perspective the drop in U.S. density fits into the broader cross-country pattern.

*Objections: The Canadian experience.* If a high union premium was inimical to unionization in the United States in the 1970s and 1980s, why did Canada, whose union wage differential is only modestly less than that in the United States, maintain its density? Is the Canadian experience a counterexample that invalidates our explanation of the drop in U.S. density?

We believe that it is not and that, in fact, the pattern of change in Canadian density fits well into our scenario. First, while Canadian density was high and increasing relative to U.S. density in the 1970s and 1980s, it was low compared with the overall OECD average. Second, much of the difference in density between Canada and the United States occurred in the public sector: In 1986, 67 percent of Canadian public-sector workers were unionized compared with 36 percent of public-sector workers in the United States (Kumar et al., 1988). In the private sector, to which our analysis pertains, Canadian union density did not grow relative to the workforce. In manufacturing, density was stable throughout the 1970s but fell from 49 percent organized in 1977 to 42 percent organized in 1986 (Wood and Kumar, 1980; Kumar et al., 1988), suggesting that the high differential may have begun to cut into membership where unionized employers competed with overseas firms, including increasingly deunionized U.S. manufacturers.

Third, Canadian labor law substantially limits what management can do to oppose unions. Canada does not rely on lengthy legalistic adversarial elections to decide unionization; in most circumstances, unions are certified with a simple card check. Canada does not permit management to engage in the massive union prevention campaigns that pervade the United States, and the two major provinces, Ontario and Quebec, have gone a long way to protect unions as institutions. Ontario has first contract arbitration, which limits management's right to replace strikers, and, in general, has taken a pro-collective bargaining attitude. Quebec, where unions have fared especially well, has an extension of contract law by which the provincial Ministry of Labor extends collective bargaining to unorganized workers. Legal insti-

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<sup>14</sup>These characteristics are prevalent in Denmark, Sweden, Finland, and Belgium

tutions like these provide a buffer for Canadian unions to maintain density even with a sizable union wage premium. The decline in density in Canadian manufacturing in the 1980s suggests, however, that economic forces may ultimately overpower even this favorable legal environment.

*Objections: Reverse causality.* Thus far, we have interpreted estimated differences between the union wage differential in the United States and other countries as a “valid” indicator of the exogenous differential that in theory induces employer opposition to union organization. What about the possibility of reverse causation? Maybe the union wage differential is high in the United States because density is low: U.S. unions might be located in sectors where unions “innately” win high differentials, whereas unions in other countries are in sectors where differentials are innately lower. From this perspective the observed high union-nonunion wage differential in the United States is an artifact of sample selectivity: If we ranked workers by the potential for a union differential, the low-density United States would include only those with a high potential, whereas countries with higher densities include workers with lower potential differentials.

We do not believe this is the correct way to interpret the observed differences in our data. First, evidence within the United States tends to reject the notion that union wage effects are large when union density is small. Union wage differentials tend to be greater the greater the extent of unionization in a sector (Freeman and Medoff, 1984; Lewis, 1986), presumably because this gives unions greater bargaining power. Second, if selectivity were the major cause of the estimated large effects of unionism on wages in the United States, we could expect similar differences in other market outcomes, which we did not find. Third, the fact that employers as well as workers affect union density makes the direction of the selectivity effect uncertain. Indeed, one could readily argue that selectivity operates to bias downward union wage effects in the United States, as employers fight hardest against unions that have the most potential for raising wages and accept unions where they have the least potential.<sup>15</sup> Fourth, and in a similar vein, massive employer opposition to unions in the United States but not elsewhere is consistent with the greater demand by unions for higher wages in the United States than in other countries. All of this does not deny the possibility that our estimates may be contaminated by the reverse effects of density on wage differentials. Rather, our claim is that this potential contamination is unlikely to *reverse* our finding that union

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<sup>15</sup>Our model suggests an even more complex relation. At first, higher potential union wage differentials might induce greater unionization, but as the potential differential rises beyond a certain point, employer opposition should grow more rapidly because of the increasing welfare loss that comes out of profits, reducing union density

wage differentials are higher for similar workers in the United States than in other countries.

*Looking to the future.* If our comparative analysis is correct, the decline in U.S. union density is not an aberration—the result of Reagan’s breaking the air traffic controllers union, of stodgy, incompetent union leadership, or of the decline in manufacturing in the 1980s—but is structurally rooted in what U.S. unions do on the wage front. Whereas in the 1950s and 1960s the large differentials that U.S. unions gained for their members were probably economically justified given the United States’ role as world economic leader, the increased differentials that developed in the 1970s are, in our view, a major liability to the future development of unionism. If private-sector unions continue to pressure for higher wages and if the economic and political environment remains more or less the same, U.S. unionism will continue to decline, with density in the private sector dropping below double digits by the mid- to late 1990s. In this scenario the U.S. industrial relations system will be an even greater exception in the OECD in the 1990s than it was in the 1980s. Unions will be relegated to a few aged industrial sectors and to public and some nonprofit sectors, producing “ghetto unionism” similar to what the United States had prior to the spurt in unionization in the 1930s and 1940s. The U.S. industrial relations system will be effectively controlled by management.

Is there a feasible alternative to this scenario? What might we learn from the experience of unions overseas about other roads the country might take in industrial relations?

At the outset, we rule out as infeasible the most favorable environment for unionism—a centralized or corporatist industrial relations system. Such a system is not only incompatible with the history of U.S. industrial relations but is also unworkable in a large and diverse economy. A small country with some centralized wage-setting history, such as Australia, can seek to emulate the Scandinavians—as the Australian union movement has tried to do. The United States and probably Canada and the United Kingdom cannot.

One feasible step is for unions to develop forms of membership outside collective bargaining, as exists in many European countries where workers are union members even in plants where unions do not have negotiating rights. To do this, U.S. unions would have to provide the new services recommended in the 1985 AFL-CIO report, *The Changing Situation of Workers and Their Unions*—low-interest credit cards, job training and counseling, access to low-cost legal help, etc. British unions, such as the General, Municipal and Boilermakers Union, have taken initiatives in this

area, apparently with modest success. Thus far, the U.S. effort has been minimal.

A second possibility is for U.S. public sector, white-collar, and service worker-oriented unions to make a major organizing effort in the private sector. This would require a campaign based on improving working conditions, job flexibility, workers' right to independent judgment on the job, fairness in promotion—the collective voice aspects of unionism stressed in *What Do Unions Do?* (Freeman and Medoff, 1984)—rather than one based on gaining huge wage increases, which would result in battles with management. However, experience overseas suggests that such drives are more likely to succeed under the aegis of a separate labor federation. In highly unionized Scandinavia, blue-collar, white-collar, and university graduate workers have separate federations. In the United Kingdom, the Electricians and Plumbers Union left the Trade Union Congress to pursue its own single-plant/single-union negotiating program. And spurts in U.S. unionism in the past have generally involved major organizational changes in the union movement, such as the development of the CIO in the 1930s.

At the national level, one aspect of foreign experience deserves attention. These are plant/firm-level elected committees that give workers representation independent of union status and of negotiating rights over wages. In Western Europe, such committees—called works councils—seem to work reasonably effectively. Canada has instituted works committees to deal with occupational health and safety issues. The growth of quality-of-working-life councils in nonunion as well as union settings in the United States shows that management recognizes the value of worker participation in the workplace. Accepting that most U.S. workers are unlikely to have collective bargaining in the foreseeable future, it seems logical to consider legislation to provide incentives to create elected employee committees to deal with workplace problems. Legislation could, for example, link the tax breaks associated with employee stock ownership plans—instituted to encourage worker participation but which have not, in general, done so (Blasi, 1988)—to the establishment of employee representation committees. If the elected committees operate effectively, they can deliver a “collective voice,” while avoiding the monopoly wage differentials that have, by our analysis, led U.S. employers to fight vehemently against unions.

In sum, our analysis has shown that the monopoly wage effects of U.S. unions have exceeded those of unions overseas and probably have contributed to the precipitous fall in U.S. union density. To recover in the next decade, U.S. unions will have to emphasize their collective voice role, drawing on international experience, experimenting with new initiatives, and developing a new brand of unionism.

## Appendix A

**TABLE A1**  
**COMPLETE REGRESSION ESTIMATES OF DIFFERENCES IN THE**  
**LOG EARNINGS OF UNION AND NONUNION WORKERS**  
 (standard errors in parentheses)

Explanatory Variables	West Germany		Austria		Australia	Switzerland <sup>a</sup>
	(1)	(2)	(3)	(4)	(5)	(6)
Experience	0367 (.0022) <sup>b</sup>	0385 (.0022)	0497 (.0045)	0519 (.0046)	.0377 (.0056)	0442 (.0035)
Experience <sup>2</sup> × 10 <sup>3</sup>	-.4740 (.0401)	.5022 (.0403)	-.8107 (.0947)	-.8477 (.0965)	-.4906 (.1065)	- 4597 (.0405)
Schooling	0607 (.0037)	.0664 (.0037)	0750 (.0070)	0855 (.0068)	.0939 (.0086)	0707 (.0060)
Male	.4452 (.0233)	.4578 (.0225)	.3436 (.0304)	3369 (.0279)	4276 (.0387)	3835 (.0541)
Union	.0555 (.0230)	0758 (.0236)	0467 (.0282)	0734 (.0277)	0817 (.0363)	.0395 (.0476)
Married	.0372 (.0232)	.0307 (.0236)	-.0202 (.0322)	-.0259 (.0329)	-.0220 (.0415)	-.0104 (.0555)
Part time	-.5937 (.0576)	-.6178 (.0584)	-.6864 (.0762)	-.6771 (.0767)	-.8029 (.0668)	- 7244 (.1705)
1986 dummy	.1171 (.0253)	.1243 (.0253)	.0212 (.0327)	.0176 (.0332)	.0128 (.0439)	
1987 dummy	1099 (.0589)	2257 (.0313)	.2588 (.0342)	2698 (.0346)	.2078 (.0443)	
Industry dummies	27	No	30	No	n.a.	n.a.
Constant	6.0733 (.0809)	5.8718 (.0639)	7.5785 (.1052)	7 4226 (.0962)	1 0858 (.1296)	6.3190 (.1062)
Adjusted R <sup>2</sup>	.4483	.4242	.4378	4018	.2306	4289
N	1,855	1,855	1,047	1,047	1,971	481
F-test	44 0	152.8	22 4	79 1	66 61	52 51

<sup>a</sup>Only 1987 statistics are available

(Table A1 cont.)

Explanatory Variables	United States		United Kingdom <sup>b</sup>		United Kingdom <sup>c</sup>	
	(7)	(8)	(9)	(10)	(11)	(12)
Experience	.0439 (.0050)	.0522 (.0051)	.0313 (.0038)	.0284 (.0038)	.0362 (.0021)	.0365 (.0021)
Experience <sup>2</sup> × 10 <sup>3</sup>	- 5042 (.0949)	- 6549 (.0969)	- .5119 (.0732)	- 4787 (.0733)	- 5902 (.0395)	- 5983 (.0401)
Schooling	1191 (.0074)	1164 (.0069)	1504 (.0095)	1398 (.0087)	.1226 (.0050)	.1255 (.0047)
Male	4630 (.0408)	5335 (.0382)	.5070 (.0265)	5668 (.0240)	4084 (.0157)	4283 (.0148)
Union	1840 (.0488)	2189 (.0484)	1010 (.0256)	0957 (.0231)	0704 (.0146)	.0914 (.0133)
Married	0867 (.0380)	0844 (.0388)	.0506 (.0297)	.0639 (.0299)	0560 (.0166)	0611 (.0170)
Part time	-1 2013 (.0731)	-1.2874 (.0745)	-1 0970 (.0400)	-1 1428 (.0392)	- 9964 (.0201)	-1 0584 (.0198)
1986 dummy	- 0148 (.0494)	0219 (.0503)	1730 (.0272)	1769 (.0273)	+4 year dummies	+4 year dummies
1987 dummy	.0702 (.0480)	0922 (.0489)	.2337 (.0277)	2337 (.0279)		
Industry dummies	46	No	60	No	60	No
Constant	7.1536 (.4639)	6 9986 (.1232)	6 3694 (.1780)	6 3968 (.1119)	6 4141 (.0965)	6 5064 (.0625)
Adjusted R <sup>2</sup>	4183	3752	.6072	5022	6523	6333
N	1,922	1,922	1,843	1,843	4,986	4,986
F-test	27 08	129 2	44 8	295 7	132.7	783 4

<sup>b</sup>Calculated from International Social Survey Programme data

<sup>c</sup>These data are taken from the 1983–87 British Social Attitudes Surveys. The ISSP data used in columns (9) and (10) are subsets of that used in columns (11) and (12). For further details of the BSA data and variable definitions, see Blanchflower (1990)