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Trade unions and the well-being of workers

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Abstract

Using data on nearly 2 million respondents from the United States and Europe, we show the partial correlation between union membership and employee job satisfaction is positive and statistically significant. This runs counter to findings in the seminal work of Freeman and Borjas in the 1970s. For the United States, we show the association between union membership and job satisfaction switched from negative to positive in the 2000s. Cohorts with positive union effects over time come to dominate those with negative effects. The negative association between membership and job satisfaction is apparent in cohorts born before the 1960s but turns positive for those born between the 1960s and 1990s. Analyses for Europe since the 2000s confirm the positive association between union membership and worker well-being is apparent elsewhere. Panel estimates for the United Kingdom also find a positive relation between union membership and job satisfaction. A positive union association with other aspects of worker well-being including life satisfaction, happiness and trust is apparent in cross-sectional data for Europe. Union members are also less likely to be stressed, worried, depressed, sad or lonely. The findings have important implications for our understanding of trade unionism.

1 | INTRODUCTION

Ever since the seminal work of Freeman (1978) and Borjas (1979), economists have known that trade union membership is negatively correlated with job satisfaction. This is no longer true: today the partial correlation is positive around the world. This partly reflects birth cohort effects with the negative association being confined to those born prior to the 1960s, while among later birth cohorts the union partial correlation with membership is positive. It also reflects differences over time in the fear union non-members have about losing their job relative to members.

Empirical investigations since Freeman and Borjas, both for the United States and elsewhere, testified to the negative partial correlation between unionization and job satisfaction (Hammer & Agvar, 2005). Freeman and Medoff (1984) devoted a whole chapter to the issue in their classic text *What Do Unions Do?* providing some theory that might account for the correlation. Applying Hirschman's (1970) consumer behaviour model of exit voice and loyalty to employment relations, they suggested that unions, by helping to solve employees' problems at work, made them less likely to quit the workplace than similarly dissatisfied non-union workers so that unions appeared to increase the 'stock' of dissatisfied workers. So, the correlation might be causal. Freeman (1980) found significantly lower exit for unionized workers and argued that the grievance system played a major role in lowering quit rates.

Unions also had an interest in fomenting dissatisfaction to help strengthen their bargaining hand vis-à-vis the employer (what Freeman and Medoff termed 'voice-induced complaining'), which might show up as dissatisfaction in social surveys. And they also increased the information flow to workers, so that employees often found out about poor management or poor conditions that, in the absence of the union, they may have been unaware of.

It was also possible that the correlation might have been a result of the selection of less satisfied workers into unionization, and unions' ability to organize workplaces with poor working conditions. Failure to account for these selection processes could generate the negative correlation that Freeman, Borjas and Freeman and Medoff had found.

For decades after these seminal contributions, analysts puzzled as to whether the union negative correlation with job satisfaction was causal or not. There were many papers, particularly for the United States and the United Kingdom, which seemed to indicate that the correlation reflected, at least in part, poor working conditions (Bender & Sloane, 1998; Bessa et al., 2020; Pfeffer & Davis-Blake, 1990) or differences between those who became union members and those who did not (Bryson et al., 2004 using instrumental variables; Heywood et al., 2002 using worker fixed effects). In some instances, panel analyses accounting for person fixed effects and the pathway by which workers became unionized even found the correlation switched to a positive and significant coefficient, at least in the case of pay satisfaction.[1] But this is not always the case. For instance, Bryson and Davies (2019) find the negative association between union membership and job satisfaction over the period 1991–2008 persists with the introduction of person fixed effects. These mixed results are reflected in Laroche's (2016) meta-analysis of 59 studies and 235 estimates. He concluded that most of the studies he examined found a negative

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[1] Many of these studies that find a role for selection effects investigate endogenous selection into union *coverage*, or into a combination of coverage or membership (Bryson and White, 2016a, 2016b; Bryson et al., 2010; Green and Heywood, 2015; Powdthavee, 2011). Throughout most of this article, we focus on union membership, as opposed to coverage, to maintain comparability with the classic seminal papers. However, when analyzing data for the British Household Panel Survey and its successor, Understanding Society, our analyses are based on a wider definition of unionization in which a worker is considered 'unionized' if they are either a union member or work in a union covered workplace.

association between unionization and job satisfaction but that the evidence 'is far from being conclusive', restating doubts expressed decades earlier by Kochan and Helfman (1981), who had concluded that the evidence was 'mixed', and Gordon and Denisi (1995), who found that union members in the United States did not have lower levels of job satisfaction.

The negative partial correlation between unionization and job satisfaction extends beyond the United States and the United Kingdom: Meng (1990) found a negative for Canada, García-Serrano (2009) for Spain and Miller (1990) for Australia. Blanchflower and Oswald (1999) found a similar negative correlation in a 1989 International Social Survey Programme (ISSP) survey covering 10 countries, namely the United Kingdom, the United States, Austria, Germany, Hungary, the Netherlands, Italy, Ireland, Norway and Israel.

Throughout this period, few suggested that unionization may improve worker well-being, even though unions' raison d'etre was the improvement in workers' terms and conditions. There were a few exceptions. Kaufman (2004) argued that those workers who keep their union jobs in the face of shrinking labour demand should be more satisfied with their jobs than non-union workers. Using data from the 1977 Quality of Employment Survey for the United States, Pfeffer and Davis-Blake (1990) confirmed this was the case. Renaud (2002) replicated these findings for Canada.

However, in the second decade of the new century a trickle of papers emerged suggesting a positive partial correlation between union membership and job satisfaction. One (Davis, 2012) was for the United States. Davis (2012) found that public sector unionization can increase members' job satisfaction by 'favourably altering the work environment':

> This research is consistent with arguments that unions can increase members' satisfaction by enabling them to achieve preferred values, and it supports the assertion that favourably altering perceptions of the work environment serves as a mechanism by which unions indirectly increase job satisfaction. (Davis, 2012, p. 80)

But the others were for Europe. Using waves 3 (2006) and 5 (2010) of the European Social Survey, Donegani and McKay (2012) found a positive partial correlation between union membership and job satisfaction pooling data across 20 countries and in various model specifications controlling for demographics, as well as occupation, working hours and firm size. They find the same positive partial correlation for other satisfaction variables including satisfaction with income, the government and the economy.

Sironi (2019) also finds a positive partial correlation between union membership and job satisfaction, as well as other well-being measures, using sweep 6 (2012) of the european social survey (ESS). However, a word of caution is sounded in Laroche's (2017) study for France: using linked employer–employee data collected in 2011, he finds a negative partial correlation between unionization and job satisfaction that disappears when accounting for endogenous selection into a union setting, reflecting the earlier studies for the United Kingdom using similar linked employer–employee data (Bryson et al., 2010). van der Meer's (2019) study using European Social Survey sweep 5 (2010) data also presents more nuanced results. Although he finds a positive partial correlation between union membership and job satisfaction in the United Kingdom and Ireland, union presence at the workplace is negatively associated with job satisfaction and, when combined, the coefficients for union membership and presence are negative and significant. In contrast, there is no significant association between unionization and job satisfaction in Continental Western Europe. He argues that the difference lies in the fact that unions are more present in the workplace in Anglophone countries, a presence that generates distrust between management and workers, leading to job dissatisfaction.

We revisit the issue using data for the United States and Europe to examine whether the partial correlation between union membership and worker well-being has shifted since the early seminal studies of Freeman, Borjas and Freeman and Medoff. We use social surveys with large samples to ensure we capture robust correlations. For the United States, we use the General Social Survey (GSS) to track any change in the relationship over time, and the Gallup Daily Tracker that, while only available since 2009, contains over half a million observations on workers.

For Europe, we rely primarily on the European Social Survey that covers around 30 European countries and began in 2002, using data on job satisfaction as well as on happiness and life satisfaction. We also present some results on job satisfaction from the British Household Panel Survey (BHPS) and Understanding Society (USoc). Furthermore, we extend the investigation to a range of well-being metrics, going beyond job and life satisfaction to consider metrics of ill-being such as feelings of stress, anger and pain in the United States using Gallup data. We also consider partial correlations with other attitudes that might impact individuals' well-being such as trust and views on the macro-economy and democracy.

We find *positive* correlations between union membership and worker well-being across a range of metrics, both in the United States and Europe since the turn of the century. For the United States using the GSS, we confirm the early findings of a negative partial correlation between job satisfaction and unionization in the twentieth century, but this shifts to statistical non-significance in the early part of the twenty-first century before switching to a positive significant correlation in the second decade of the twenty-first century.

The positive correlation post the Great Recession is replicated in the US Gallup Daily Tracker Poll and is apparent for a range of well-being metrics. The raw correlation continues to be statistically significant, though a little smaller, when we condition on workers' demographic traits, state and year fixed effects. In Europe the positive correlation between unionization and a range of well-being metrics has been apparent since the early part of the new century; it is robust to controls for demographic traits and country fixed effects; and it is apparent in most large European countries, despite substantial differences in the way unions bargain. That union workers have higher levels of happiness and lower levels of stress than non-union workers, and that this is true around the world in the years since the Great Recession, runs contrary to what was previously found.

2 | EMPIRICAL EVIDENCE

Our methodology here is estimate a series of well-being equations using ordinary least squares that include a dummy variable for union status. Throughout, we restrict our samples to workers and include as controls, where feasible, an equivalent set of controls for year and month of interview, gender and age, education and labour force status as well as for country, state and region. We start with measures of job satisfaction but broaden the set of well-being variables to include other measures such as stress, pain, trust, loneliness, life satisfaction and happiness as well as to views on the macro-economy. In turn, we examine data for the United States, the United Kingdom and Europe with a variety of cross section time series datasets such as the US Gallup Daily Tracker 2008–2017; the European Social Surveys of 2002–2019 and longitudinal data files for the United Kingdom, drawn from the British Household panel and USoc that allow us to control for worker specific fixed effects. We find widespread evidence that union status is associated with higher levels of well-being.

TABLE 1 US OLS job satisfaction equations, General Social Surveys, 1972–2018, workers only

	1972–1996	1998–2008	2010–2018	2010-2018 Private sector
Union	−.0738 (4.44)	−.0355 (1.24)	.0534 (1.54)	.1039 (2.15)
Male	−.0213 (1.82)	−.0126 (0.72)	−.0332 (1.71)	−.0223 (1.01)
Age	.0100 (22.91)	.0054 (8.16)	.0066 (9.72)	.0067 (8.67)
African American	−.1737 (10.35)	−.1617 (6.55)	−.1157 (4.39)	−.0780 (2.51)
Other races	−.0902 (2.75)	−.0281 (0.95)	.0001 (0.00)	.0130 (0.38)
Self-employed	.1549 (9.34)	.1790 (7.17)	.1535 (5.42)	.1679 (5.36)
Constant	3.3007	2.9304	3.3402	3.3033
Adjusted R^2	.0513	.0422	.0580	.0476
N	20,824	8832	6673	5325

Note: All equations include year dummies, industry (9), region (8) and highest level of education (19) controls. *t*-Statistics in parentheses.

2.1 | United States

Table 1 reports the partial correlation between union membership and job satisfaction using the GSS from 1972 to 2018 for workers only. The question asked was as follows and with the following pre-codes:[2]

Q1: On the whole how satisfied are you with the work you do—would you say you are *very satisfied* = 4, *moderately satisfied* = 3, *a little dissatisfied* = 2, or *very dissatisfied* = 1?

The same question and GSS data were used by Blanchflower and Oswald (1999) for the years 1972–1996. They found union membership was negative and statistically significant in a job satisfaction equation in their Table 2.[3] Their results are replicated in column 1 for the same years with controls for age, highest level of education, self-employed, region, industry and year. The union coefficient in column 1 is negative and highly statistically significant with a *t*-statistic of over 4.

Column 2 performs the same exercise for the years 1998–2008 but now the union coefficient becomes insignificantly different from zero (*t* = 1.24). The third column suggests something fundamental has changed since the Great Recession, focusing on the 5 survey years from 2010 to 2018. The union coefficient has now turned *positive* but with only a *t*-statistic of 1.54. Finally, in the last column that is restricted to the private sector the union coefficient becomes statistically significant and positive (*t* = 2.15). Union members in the private sector in the years since the Great Recession have significantly *higher* levels of job satisfaction than non-members. To give an indication of the size of the differential, the raw difference in job satisfaction ratings between union and non-union workers in the whole economy is 0.10 job satisfaction points (3.42 vs. 3.32). In comparison, the gap between white and black workers is 0.16 points (3.36 vs. 3.20).

Table 2 for workers only replicates the finding of a *positive* union coefficient in job satisfaction equations for over 600,000 observations using data from Gallup's US Daily Tracker Poll (GUSDTP) from 2009 to 2013.

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[2] Job satisfaction data are available in the GSS for: 1972–1978, 1980, 1982–1991, 1993, 1994, 1996 and then every 2 years through 2018.

[3] Throughout, for ordinal outcomes we use OLS estimation. Results are very similar using ordered logits as used in Blanchflower and Oswald (1999)

TABLE 2   OLS job satisfaction from Gallup US Daily Tracker, 2009–2013, workers only

Union	.0088 (7.08)	.0079 (6.32)	.0089 (7.12)
Male	−.0011 (1.42)	−.0007 (0.86)	−.0010 (1.28)
Age	−.0014 (9.78)	−.0021 (14.00)	−.0019 (11.99)
Age^2*100	.0033 (21.27)	.0040 (25.31)	.00033 (19.69)
Other races	−.0312 (11.92)	−.0280 (10.67)	−.0241 (9.23)
African American	−.0447 (29.19)	−.0415 (27.04)	−.0361 (23.66)
Asian	.0044 (1.68)	−.0006 (0.21)	.0008 (0.30)
Hispanic	−.0154 (9.75)	−.0073 (4.47)	−.0043 (2.63)
High school degree or diploma		.0236 (9.59)	.0188 (7.71)
Technical/vocational school		.0215 (7.93)	.0152 (5.62)
Some college		.0178 (7.44)	.0118 (4.96)
College graduate		.0385 (16.09)	.0296 (12.41)
Postgraduate work or degree		.0504 (20.81)	.0408 (16.91)
FT self-employed			.0301 (20.60)
PT does not want FT			.0463 (35.15)
PT wants FT			−.0980 (66.80)
Constant	.9121	.8965	.9065
Pseudo-R^2	.0115	.0133	.0240
N	603,463	603,463	603,463

Note: All equations include year and month of interview and state controls. Columns 2 and 3 also include controls for education 'do not know' and 'refused'. *t*-Statistics in parentheses.

The exact question, which is only asked of workers, is: Q2. Are you satisfied or dissatisfied with your job or the work you do?[4] The dependent variable is set to 1 if satisfied, 0 otherwise and all equations include year and month of interview and state controls and are estimated by OLS. In column 1 with the addition of gender, age, age squared and race, union membership is positive and statistically significant. The model is extended in column 2 to include controls for education. The union coefficient drops a little but remains positive and highly statistically significant. The model in column 3 is extended still further to incorporate whether workers are full-time, self-employed, content to be part-time or are part-time and would like a full-time job—the underemployed. The inclusion of these controls has little impact on the size of the union coefficient that remains positive and highly statistically significant with a *t*-statistic of 7.[5]

Artz et al. (2021) examine the association between union coverage and job satisfaction using panel data for the United States. They also show that the association between unionization and job satisfaction has flipped since the Great Recession such that union workers are now more satisfied than their non-union counterparts. This is the case for younger and older workers in the National Longitudinal Surveys of 1979 and 1997. The change is also apparent when using the panel data to account for fixed differences in those who are and are not unionized, suggesting changes in worker sorting into union status are not the reason for the change.

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[4] See 'U.S. job satisfaction struggles to recover to 2008 levels', Gallup, May 31, 2011. https://news.gallup.com/poll/147833/Job-Satisfaction-Struggles-Recover-2008-Levels.aspx

[5] Consistent with the literature, job satisfaction is u-shaped in age (Blanchflower, 2021a) and the underemployed have especially low levels of job satisfaction (Bell and Blanchflower, 2019).

TABLE 3 European Social Survey, job satisfaction, OLS, waves 3 (2006), 5 (2010) and 6 (2012), workers only

Member	.1068 (5.61)	.0846 (4.40)	.1448 (7.43)	.0763 (3.85)
Age		−.0147 (3.81)	−.0213 (5.55)	−.0241 (6.29)
Age²*100		.0277 (6.27)	.0339 (7.68)	.0355 (8.05)
Male		.0188 (1.25)	−.0073 (0.48)	.0368 (2.20)
Native		.2311 (8.92)	.2221 (8.29)	.1937 (7.23)
Years of education			.0357 (16.63)	.0189 (8.21)
Self-employed			.5208 (22.82)	.5871 (24.30)
Family business			.4709 (7.53)	.6068 (9.61)
Country dummies (33)	Yes	Yes	Yes	Yes
Wave dummies (2)	Yes	Yes	Yes	Yes
Industry dummies (90)	No	No	Yes	Yes
Constant	6.9311	6.7903	6.3495	6.2681
Adjusted R^2	.0523	.0561	.0669	.0759
N	71,545	71,545	71,545	71,545

Note: *t*-Statistics in parentheses.

2.2 | Europe

In Table 3, we examine the association between union membership and job satisfaction using data on over 70,000 observations from three waves (2006, 2010 and 2012) of the European Social Surveys across 38 countries.[6] The question asked was:

Q3. How satisfied are you in your main job? *Completely dissatisfied = 1; very dissatisfied = 2; fairly dissatisfied = 3; neither satisfied nor dissatisfied = 4; fairly satisfied = 5; very satisfied = 6; completely satisfied = 7?*

For simplicity, now that the dependent variable is scored 1–7, we estimate OLS models and the sample is restricted to workers only using the employment status variable indicating that paid work is the respondent's main activity (*mnactic* = 1). We restrict the sample size to be the same across all model specifications. In the first column, the union variable is entered with only country and wave dummies: the coefficient is positive and significant with a *t*-statistic of nearly 6. The union coefficient remains positive in column 2 with the addition of age, gender and native controls and in column 3 when we also add years of education and self-employment or owning a business. The final column adds three-digit industry dummies and shows the positive and significant union effect remains. As in the United States in recent years union members in Europe have significantly *higher* job satisfaction than their non-member counterparts.

2.3 | United Kingdom

In the discussion above, that has mostly found negative union effects on job satisfaction, it is apparent that much of the empirical literature is for the United Kingdom, and that most of the

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[6] Albania, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kosovo, Latvia, Lithuania, Luxembourg, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine and the United Kingdom.

TABLE 4 Job satisfaction in the United Kingdom, 1995–2018, workers only, whole economy

(a) 1995–2018				
Union	−0.0717	−0.0793	0.0163	0.0179
	(7.98)	(8.75)	(1.99)	(2.18)
Controls	No	Yes	No	Yes
Worker FE	No	No	Yes	Yes
Constant	5.384	6.019	5.385	5.901
Observations	213,496	212,390	213,496	213,496
R^2	0.003	0.013	0.002	0.002
# individuals			48,547	48,547
(b) 1995–2009				
Union	−0.0784	−0.0862	0.0159	0.0163
	(5.81)	(6.34)	(1.28)	(1.31)
Controls	No	Yes	No	Yes
Worker FE	No	No	Yes	Yes
Constant	5.387	6.214	5.388	5.651
Observations	96,798	95,693	96,798	96,798
R^2	0.002	0.02	0.001	0.001
# individuals			17,026	17,026
(c) 2010–2018				
Union	−0.0654	-0.0718	0.0254	0.0254
	(6.00)	(6.53)	(2.19)	(2.19)
Controls	No	Yes	No	Yes
Worker FE	No	No	Yes	Yes
Constant	5.306	5.826	5.310	6.792
Observations	116,698	116,697	116,698	116,698
R^2	0.001	0.007	0.001	0.001
# individuals			37,503	37,503

Note: *t*-Statistics in parentheses. All equations include year dummies. Columns 2 and 4 control for region dummies, age and age squared, male, marital status and highest qualification. Columns 1 and 2 cluster standard errors at the individual respondent level. *Source*: BHPS and Understanding Society.

studies use the leading household panel survey in Britain, the BHPS and its successor USoc. It is also apparent from the literature above that the literature has tended to focus on two dimensions of unionization, namely coverage and membership.

In Table 4, we revisit the issue focusing on the association between union membership and overall job satisfaction. We combine BHPS and USoc running estimates for the period 1995–2018 for the whole economy. The question used is:

Q4. On a scale of 1–7 where 1 = *'Completely dissatisfied'* and 7 = *'Completely satisfied'*, how dissatisfied or satisfied are you with your present job overall?

We report estimates for the whole period (1995–2018) and for the two periods before and after the Great Recession (1995–2009 and 2010–2018). In each case, we provide estimates using OLS with and without controls (columns 1 and 2), and the same but with worker fixed effects (columns 3 and 4). The union variable identifies those who are union members or are covered by a union bargaining agreement.

In panel (a) for the entire period 1995—2018, unionized workers have lower job satisfaction than their non-union counterparts in the OLS estimates, with and without controls. However, when we exploit the panel nature of the data by running person fixed effects models the coefficient switches sign, becoming positive and statistically significant both without (column 3) and with (column 4) time-varying covariates.

Panel (b) runs the same estimates but for the pre-Great Recession period. Again, in OLS estimates, unionized workers are significantly less satisfied with their jobs than non-unionized workers, whether one controls for other factors or not, whereas the union fixed-effects estimates are insignificantly different from zero. In panel (c) the sample is restricted to 2010–2018 and as in the first panel both fixed-effects estimates are positive and the OLS estimates are negative.[7]

These positive fixed-effects results for the later period stand in contrast to most of the existing literature for the United Kingdom, but there have been inklings of a positive effect in some of the literature. For example, in their fixed-effects estimates using BHPS data for 1991–2007, Bryson and White (2016b) find union attitudes are broadly *positive* both with regard to pay and hours of work. Bessa, Charlwood and Valizade (2020), who also used the BHPS concluded that 'our overall judgement is that union membership does not have a causal impact on job satisfaction' but went on to argue that 'studies designed to explicitly test for positive effects of unions on job satisfaction would therefore be desirable in future'.

2.4 | Union membership and well-being

There are relatively few examples in the literature of the partial correlation between unionization and well-being, other than job satisfaction. Using the first six waves of the World Values Survey (WVS) conducted in the United States (1982, 1990, 1995, 1999, 2006 and 2011), Flavin and Shufeld (2016) find that union members are more satisfied with their lives than those who are not members. Flavin et al. (2010) examined life satisfaction in fourteen industrialized democracies: they found an individual union variable entered positively as did a country level union density variable, in a number of life satisfaction equations.

Keane et al. (2012) also used the WVS, sweeps 2–4, and included the individual union member variable and union density at the country level and found positive and significant effects for the individual variable but not for the aggregate one. For a subset of OECD countries, both were significant and positive. Radcliff (2005) uses life satisfaction data aggregated from the Eurobarometers from 1975 to 1992 and mapped in union density by country that he shows enters positively and significantly.

We extend this literature by estimating partial correlations between union membership and aspects of positive affect, including life satisfaction, happiness and enjoyment, as well as its association with aspects of negative affect, including stress, pain, anger and depression. We then move on to look at measures of trust in Europe—in relation to the police; politicians; political parties and the European Parliament. Finally, we look at respondents' views on national government; democracy, education and health services. In every case, we restrict the samples to *workers only* to be as comparable as possible to the job satisfaction measures.

Table 5 reports, again for workers only, the results of OLS estimation of Cantril's 11-step life satisfaction ladder question in the GUSDTP of 2009–2017, used previously by a number of authors including Blanchflower (2021a). The survey question is:

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[7] Results are similar when confining the sample to the private sector. These results are available on request.

TABLE 5 Cantril life satisfaction from Gallup US Daily Tracker, OLS 2009–2017, workers only

Union	.0815 (14.10)	.0682 (11.92)	.0599 (10.47)
Male	−.1777 (48.07)	−.1618 (44.27)	−−.1604 (43.62)
Age	−.0256 (38.03)	−.0381 (56.66)	−.0377 (53.93)
Age^2*100	.0338 (48.12)	.0452 (64.95)	.0429 (57.98)
Other races	−.1367 (10.75)	−.0681 (5.42)	−.0425 (3.40)
African American	−.0893 (13.02)	−.0268 (3.95)	.0041 (0.61)
Asian	.0667 (5.60)	−.0539 (4.58)	−.0459 (3.92)
Hispanic	.0075 (1.10)	.1699 (24.24)	.1842 (26.47)
High school degree or diploma		.2069 (19.19)	.1737 (16.21)
Technical/vocational school		.1687 (13.59)	.1265 (10.25)
Some college		.2787 (26.36)	.2374 (22.58)
College graduate		.6290 (59.46)	.5686 (53.99)
Postgraduate work or degree		.8922 (83.19)	.8279 (77.42)
FT self-employed			.0157 (2.39)
PT does not want FT			.2426 (40.82)
PT wants FT			−.6179 (92.36)
Constant	7.8327	7.6573	7.7611
Adjusted R^2	.0107	.0355	.0482
N	894,469	894,469	894,469

Note: All equations include year and month of interview and state. *t*-Statistics in parentheses.

Q5. Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?

There are more than 900,000 observations on workers. The union variable is significant and positive in column 1 with age, gender and race controls indicating union members have higher life satisfaction than non-members. The same applies in column 2 which adds controls for education. The final column adds labour force status controls. The underemployed are especially unhappy again. But the partial correlation between union membership and life satisfaction remains in-tact and highly statistically significant.

Table 6 does the same for happiness across sweeps 1–9 of the ESS from 2002 to 2018, for workers. Union membership is positive and statistically significant in an estimation sample of around 200,000 observations. Table 7 uses life satisfaction, and the results are essentially the same, with and without controls. There is a positive statistically significant partial correlation between union membership and happiness/life satisfaction that persists with the introduction of basic controls in column 2 and a wide range of controls in column 3. The questions used are.

Q6. Taking all things together, how happy would you say you are? Please answer using this card, where 0 = *extremely happy* and 10 = *extremely happy*.

Q7. All things considered, how satisfied are you with your life as a whole nowadays? Please answer using this card, where 0 = *extremely dissatisfied* and 10 = *extremely satisfied*.

In both Tables 6 and 7, we split the samples in half from 2002 to 2008 and then 2010 to 2018. For both happiness and life satisfaction there are positive and significant union effects in both periods.

TABLE 6   European Social Survey, happiness, OLS, sweeps 1–9, 2002–2018, workers only (mnactic = 1)

				2002–2008	2010–2018
Union	.0353 (3.71)	.0635 (6.57)	.0578 (5.97)	.0623 (4.40)	.0512 (3.86)
Age		−.0282 (14.15)	−.0670 (31.95)	−.0748 (23.17)	−.0598 (21.52)
Age^2*100		.0221 (9.68)	.0601 (22.13)	.0689 (18.73)	.0529 (17.23)
Male		−.0499 (6.54)	−.0765 (10.05)	−.0603 (5.23)	−.0982 (9.73)
Native		.1065 (8.08)	.1365 (10.50)	.1848 (9.01)	.0825 (4.92)
Years of education			.0347 (32.37)	.0317 (19.73)	.037 4(25.92)
Self-employed			.0903 (7.77)	.0957 (5.61)	.1474 (9.82)
Working for family business			.1244 (11.02)	.1460 (2.88)	.1783 (4.32)
Separated			−.8902 (27.05)	−.8814 (20.18)	−.8615 (17.95)
Divorced			−.6100 (46.54)	−.6463 (31.24)	−.5856 (34.60)
Widowed			−.6236 (41.18)	−.6068 (33.73)	−.8174 (24.29)
Never married			−.5291 (42.85)	−.5585 (29.02)	−.4982 (38.11)
Country/wave dummies	Yes	Yes	Yes	Yes	Yes
Constant	6.6572	7.3138	7.8418	7.2953	7.7796
Adjusted R^2	.1120	.1168	.1446	.1584	.1403
N	199,747	199,747	199,747	88,555	110,615

Note: Excluded: single and employee. *t*-Statistics in parentheses.

In Table 8, we switch back to the United States to use the GUSDTP data to examine the association between union membership and negative affect. Column 1 focuses on stress, as previously examined by Blanchflower (2020) and Graham and Puzuello (2019) using the Gallup World poll. In addition, we consider pain in column 2 and anger in column 3. The survey questions are: Q8. Did you experience stress/pain/anger yesterday—yes or no?

Union membership enters negatively and significantly for stress but significantly positive for both pain and anger. The latter result may reflect pain induced by the occupations where union members are often concentrated in the United States, at least traditionally—namely blue-collar manual jobs. The age variables look like the mirror image of the life satisfaction results in Table 5 above showing an inverted U-shape in age.

In Table 9, we use the GUSDTP for the United States to examine the association between workers' union membership and their life and job satisfaction with and without controlling for pain, anger and stress. Columns 1 and 3 report estimates excluding these variables but on the same samples. Although pain, anger and stress are all negatively correlated with life and job satisfaction, their introduction does nothing to the positive correlations between union membership and life and job satisfaction.

2.5 | Union membership and other well-being variables

Table 10 turns to 16 other measures of well-being in various sweeps of the ESS. We run OLS equations in every case with the same controls as in column 3 of Table 6, that is age and its square, gender, native, years of education, self-employment, plus wave and country dummies. The questions are provided below the table (Q9–Q14) and we simply report the union coefficient, the *t*-value and the sample size. The results are split into four groups and in every case, there are positive and significant union coefficients.

TABLE 7 European Social Survey, life satisfaction, OLS 2002–2018 (mnactic = 1)

				2002–2008	2010–2018
Union	.0155 (1.43)	.0470 (4.31)	.0416 (5.94)	.0347 (2.16)	.0455 (3.03)
Age		−.0423 (19.24)	−.0755 (31.77)	−.0825 (22.47)	−.0702 (22.41)
Age^2*100		.0394 (15.67)	.0729 (27.36)	.0828 (19.79)	.0665 (19.20)
Male		−.0235 (2.77)	−.0421 (4.90)	−.0299 (2.28)	−.0362 (3.17)
Native		.2414 (16.46)	.2625 (17.81)	.2710 (11.55)	.2155 (11.38)
Years of education			.0462 (37.98)	.0433 (23.72)	.0495 (30.42)
Self-employed			.1619 (12.66)	.1272 (6.56)	.1885 (11.12)
Working for family business			.1988 (5.46)	.0946 (1.64)	.2661 (5.72)
Separated			−.8407 (23.03)	−.8081 (16.26)	−.8444 (15.57)
Divorced			−.5633 (37.96)	−.5725 (24.36)	−.5587 (29.22)
Widowed			−.5043 (29.39)	−.4761 (23.27)	−.6908 (18.20)
Never married			−.4410 (36.30)	−.4557 (20.81)	−.4266 (28.90)
Country/wave dummies	Yes	Yes	Yes	Yes	Yes
Constant	6.6200	6.6200	6.8426	5.6749	6.8972
Adjusted R^2	.0134	.1643	.1838	.2026	.1735
N	199,999	199,999	199,999	88,959	111,040

Note: Excluded: single and employee. *t*-Statistics in parentheses.

2.5.1 | Panel A: Positive affect

First, we have 11-step data on nearly 70,000 respondents from sweeps 3, 5 and 6 for workers on how satisfied they are with their work–life balance. Second, there is a different 11-step life satisfaction question from sweep 3 that differs from the measure referred to from Q2 above: the latter refers to 'nowadays,' whereas the one in row 2 of Table 10 refers to how well life has turned out 'so far'. There are only 22,000 observations here. The outcome variable in row 3 is a four-step measure referring to enjoyment of life from sweeps 3, 6 and 7 with a sample of 58,000 and the final outcome variable in row 4—also a four-step variable—refers to whether life was calm and peaceful. In all four cases, the union partial correlation is positive and statistically significant.

2.5.2 | Panel B: Negative affect

Data on negative affect are taken from sweeps 3, 6 and 7 of the ESS and has sample sizes of 58,000. These data files were also examined by Blanchflower (2020). Here, we find negative and significant union coefficients on a series of variables scored 1–4, for depression, everything being an effort, feeling lonely and feeling sad.

2.5.3 | Panel C: Trust

Beginning in the late 1960s, Americans began to 'join less, trust less, give less, vote less and schmooze less' (Putnam & Feldstein, 2003, p. 4). This decline in trust has been associated with a decline in unionism. This is illustrated below where we plot the US unionization rate from

TABLE 8 OLS Stress pain and anger from Gallup US Daily Tracker, 2009–2017, workers only

	Stress	Pain	Anger
	2009–2017	2009–2017	2008–2013, 2016
Union	−.0148 (9.13)	.0158 (12.33)	.0077 (6.21)
Male	−.0611 (58.63)	−.0115 (14.00)	.0073 (9.10)
Age	.0033 (16.69)	.0058 (36.92)	.0007 (4.85)
Age^2*100	−.0087 (41.49)	−.0046 (27.86)	−.0024 (14,64)
Other races	−.0461 (13.02)	.0286 (10.24)	.0173 (6.59)
African American	−.1247 (65.17)	−.0217 (14.38)	−.0002 (0.14)
Asian	−.0721 (21.71)	−.0295 (11.26)	−.0156 (6.00)
Hispanic	−.0813 (41.16)	.00040 (0.26)	.0037 (2.36)
High school diploma	−.0086 (2.82)	−.0545 (22.75)	−.0296 (12.44)
Tech/Voc school	.0182 (5.21)	−.0409 (14.81)	−.0290 (10.85)
Some college	.0366 (12.29)	−.0668 (28.45)	−.0336 (14.44)
College graduate	.0378 (12.68)	−.1144 (48.63)	−.0498 (21.36)
Postgraduate	.0577 (19.07)	−.1267 (53.09)	−.0539 (22.81)
FT self-employed	.0301 (16.21)	.0298 (20.33)	.0223 (15.53)
PT does not want FT	−.0770 (45.56)	.0258 (19.35)	−.0082 (6.31)
PT wants FT	.0603 (31.81)	.0918 (61.32)	.0414 (28.82)
Constant	.4079	.0964	.1561
Adjusted R^2	.0413	.0190	.0103
N	895,659	895,851	692,920
Mean	.363	.240	.326

Note: All equations include year and month of interview and state. Excluded: FT employee, less than high school diploma, white. Did you experience pain/stress/anger yesterday, Yes or No? *t*-Statistics in parentheses.

www.unionstats.com alongside the trust variable from the GSS that asks 'can people be trusted?' with pre-coded response options 'can trust' or 'cannot be too careful' and 'depends'. We simply plot the proportion in the United States who reply 'can trust,' which has fallen from 46% in 1973 to 32% in 2018 while union density has more than halved.

	Can trust (%)	Membership (%)
1973	46.0	24.0
1980	45.5	23.0
1990	38.1	16.1
2000	35.2	13.5
2008	33.0	12.4
2014	30.8	11.1
2016	32.0	10.7
2018	31.6	10.5

TABLE 9 OLS life and job satisfaction from Gallup US Daily Tracker, workers only

| | Cantril | | Job satisfaction | |
	2009–2013, 2016–2017		2009–2013	
Union	.0675 (10.46)	.0690 (11.06)	.0088 (7.01)	.0091 (7.48)
Male	−.1672 (40.14)	−.2045 (50.48)	−.0010 (1.23)	−.0054 (6.83)
Age	−.0424 (53.01)	−.0374 (48.17)	−.0019 (12.08)	−.0012 (7.91)
Age^2*100	.0470 (55.70)	.0387 (47.23)	.0033 (19.77)	.0021 (12.82)
Other races	−.0331 (2.43)	−.0390 (2.95)	−.0241 (9.24)	−.0241 (9.40)
African American	.0360 (4.65)	−.0456 (6.05)	−.0361 (23.64)	−.0477 (31.19)
Asian	−.0325 (2.42)	−.0922 (7.06)	.0008 (0.28)	−.0073 (2.79)
Hispanic	.1820 (22.44)	.1390 (17.64)	−.0043 (2.66)	−.0096 (6.06)
High school diploma	.1719 (13.85)	.1296 (10.76)	.0192 (7.86)	.0128 (5.31)
Tech/Voc school	.1307 (9.38)	.1090 (8.06)	.0153 (5.66)	.0115 (4.35)
Some college	.2329 (19.21)	.2100 (17.83)	.0120 (5.03)	.0082 (3.49)
College graduate	.5600 (46.13)	.5103 (43.25)	.0299 (12.48)	.0222 (9.44)
Postgraduate	.8252 (67.11)	.7791 (65.15)	.0411 (16.96)	.0339 (13.58)
FT self-employed	−.0062 (0.83)	.0358 (4.95)	.0301 (20.63)	.0363 (25.41
PT does not want FT	.2610 (38.63)	.2215 (33.74)	.0463 (35.11)	.0398 (30.77)
PT wants FT	−.6318 (83.47)	−.5417 (73.58)	−.0981 (66.77)	−.0863 (59.88)
Pain		−.4199 (78.75)		−.0445 (42.37)
Anger		−.4600 (72.84)		−.1057 (84.34)
Stress		−.5686 (132.23)		−.0744 (87.85)
Constant	7.9094	8.2466	.9065	.9546
Adjusted R^2	.0484	.1053	.0249	.0640
N	690,055	690,055	602,068	602,068

Note: All equations include year and month of interview and state. Excluded: FT employee, less than high school diploma, white. Life today coded: 1 = *worst possible* to 10 = *best possible*.

It is possible that unions themselves may be victims of a decline in trust in society, but what is the correlation between being trusting and union membership? In Table 10, we have data on trust from all nine of the sweeps of the ESS, with sample sizes of around 175,000. Compared with non-members union members have higher levels of trust in other people as well as in institutions like the police, politicians, political parties and even the European Parliament.

2.5.4 | Macro-variables

Union members in Europe as reported in Table 10 are also more optimistic than non-members on the state of the economy in their country as well as in democracy and the overall state of education.

3 | DISCUSSION

The negative partial correlation between union membership and job satisfaction has been one of the chief empirical regularities to come out of labour economics and industrial relations. It dates

TABLE 10 Broader well-being measures ESS, OLS, 2002–2019, workers only

	Union	t	N	Mean	Scale
(a) Positive affect					
Satisfaction work–life balance[a]	.0953	4.47	69,953	2.24	0–10
Satisfaction with life so far[b]	.0894	3.08	22,754	6.82	0–10
Enjoyed life[c]	.0165	1.97	58,346	2.93	1–4
Felt calm and peaceful[d]	.0383	3.82	40,512	2.75	1–4
(b) Negative affect					
Felt depressed[c]	−.0262	4.15	58,476	1.41	1–4
Everything an effort[c]	−.0248	3.33	58,433	1.62	1–4
Felt lonely[c]	−.0222	3.49	58,426	1.36	1–4
Felt sad[c]	−.0201	3.13	58,427	1.51	1–4
(c) Trust					
Trust in people	.0719	5.61	182,598	4.96	0–10
Trust in the police	.0923	6.86	175,738	5.94	0–10
Trust in politicians	.0732	5.67	175,124	3.52	0–10
Trust political parties	.0833	6.13	157,423	3.47	0–10
Trust in European Parliament	.0390	2.67	164,278	4.46	0–10
(d) Macro-views					
The economy	.0286	2.30	181,725	4.48	0–10
Democracy	.0270	1.99	174,341	5.25	0–10
State of education	.0277	2.18	172,468	5.54	0–10

Note: Same controls as Table 6, column 3. *t*-Statistics in parentheses.

[a]Sweeps 3, 5 and 6.

[b]Sweep 3.

[c]Sweeps 3, 6 and 7.

[d]Sweeps 3 and 6.

Q9. How satisfied are you with the balance between the time you spend on your paid work and the time you spend on other aspects of your life? 0 = *Extremely dissatisfied* to 10 = *extremely satisfied.*

Q10. How satisfied are you with how your life has turned out so far? 0 = *Extremely dissatisfied* to 10 = *extremely satisfied.*

Q11. I will now read out a list of the ways you might have felt or behaved during the past week. Using this card, please tell me how much of the time during the past week:

You felt depressed?

You enjoyed life?

You felt calm and peaceful?

You felt everything was an effort?

You felt lonely?

You felt sad?

None or almost none of the time; some of the time; most of the time; all or almost all of the time.

Q12. Using this card, please tell me on a score of 0–10 how much you personally trust each of the institutions I read out. 0 = *you do not trust an institution at all*, and 10 = *you have complete trust.*

The police?

This country's parliament?

Politicians?

The European Parliament?

Q13. Using this card, generally speaking, would you say that most people can be trusted, or that you cannot be too careful in dealing with people? Please tell me on a score of 0–10, where 0 = *you cannot be too careful* and 10 = *that most people can be trusted*?

Q14. And on the whole, how satisfied are you with the way democracy works in [country]?

Now, using this card, please say what you think overall about the state of education in [country] nowadays?

On the whole how satisfied are you with the present state of the economy in [country]?

0 = *Extremely dissatisfied* to 10 = *extremely satisfied.*

back to seminal studies from the late 1970s and early 1980s. In this article, we present new empirical evidence challenging that regularity. With data for the United States, we show the association between union membership and job satisfaction switched from negative to positive in the 2000s. The United Kingdom is a little different: the partial correlation between a dummy variable capturing union membership or coverage is negatively correlated with job satisfaction both before and after the Great Recession. However, in both periods this negative association turns positive with the addition of person fixed effects, a positive coefficient that becomes statistically significant after the Great Recession. Analyses for Europe since the 2000s indicate this positive association is apparent elsewhere, confirming findings from some other recent analyses of the European Social Survey. Furthermore, we find union membership is positively and significantly associated with a range of other well-being metrics including life satisfaction, happiness, depression, sadness, trust as well satisfaction of democracy, education and the overall economy.

The question we are left with is: why?

Union membership offers two benefits: bargaining to secure better terms and conditions, and insurance against job loss and arbitrary employer unfair behaviour. It seems reasonable to ask whether unions did these 'jobs' differently in recent years in a way that may have affected the well-being differential between union and non-union workers, or whether—if they were doing essentially the same job over time—that job was valued differently by union members such that their well-being benefited relative to non-union workers.

First, we checked to see whether the union wage premium had changed over time. Perhaps higher satisfaction and well-being reflected an improvement in the wages of union members relative to their non-union counterparts? This proves not to be the case. It is true that union members receive a substantial wage premium, but this has not changed over time. Artz et al. (2021) extend the earlier estimates of the union wage premium for the United States undertaken by Blanchflower and Bryson (2004) using the Current Population Survey through to 2019. They find the premium is broadly constant over time.

Second, we turn to survey evidence on job insecurity. In the economics literature this has two components: the probability of job loss and, conditional on that, the probability of getting a 'like' job (the latter effectively proxying for the cost of job loss) (Nickell et al., 2002). The GSS contains proxies for both. We find that prior to the Great Recession union members were more likely than their non-member counterparts to say they were likely to lose their job in future.

This seems to run counter to the proposition that unions offer insurance against job loss, but it is possible that the response reflects the well-known fact that employment growth is lower in the union sector (Bryson, 2004), which, in turn, partly reflects union bargaining over wages and the fact that unions often inhabit sectors that are in secular decline. However, what is interesting and directly relevant to this article, is that this effect disappeared with the Great Recession: the differential between union members and non-members vanished. This is apparent in Table 11 that reports on expected job loss in the GSS using the variable *joblose*. The question asked is as follows:

Q15. Thinking about the next 12 months, how likely do you think it is that you will lose your job or be laid off—*very likely* (= 4), *fairly likely* (= 3), *not too likely* (= 2), or *not at all likely* (= 1)? Our coding is in parentheses.

This extends work reported by Blanchflower and Oswald (1999) using the same variable and data, for 1978–1996, and controls along with state unemployment rates that were mapped in.[8]

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[8] We do not have access to state of residence information, so instead include controls for nine regions.

TABLE 11 Probability of finding or losing a job, GSS, 1977–2018

(a) Over the next 12 months, likelihood you will lose your job or be laid off

			1977–1998	2000–2018
Union	.0620 (2.95)	.1066 (4.11)	.1081 (4.08)	−.0160 (0.46)
Union*2000+		−.1224 (2.94)		
Age	−.0026 (4.47)	−.0026 (4.48)	−.0031 (4.04)	−.0017 (1.89)
Male	.0152 (1.04)	.0140 (0.95)	.0095 (0.50)	.0204 (0.89)
Self-employed	−.1804 (8.21)	−.1802 (8.21)	−.2125 (7.54)	−.1323 (3.77)
Black	.1618 (7.11)	.1611 (7.08)	.1953 (6.24)	.1257 (3.79)
Other race	.0753 (2.42)	.0742 (2.39)	.0132 (0.25)	.0962 (2.46)
Years education	−.0296 (11.40)	−.0293 (11.31)	−.0249 (7.25)	−.0358 (8.94)
Time	.0017 (2.62)	.0023 (3.40)	.0043 (2.73)	−.0019 (0.98)
Constant	−1.4307	−2.6726	−6.6438	5.8996
Adjusted R^2	.0295	.0301	.0324	.0296
N	12,000	12,000	7135	4865

(b) Ease of finding a comparable job

			1977–1998	2000–2018
Union	−.2434 (11.81)	−.2828 (11.13)	−.2690 (10.35)	−.1959 (5.79)
Union*2000+		.1083 (2.65)		
Age	−.0103 (18.13)	−.0103 (10.13)	−.0112 (14.66)	−.0092 (10.62)
Male	−.0083 (0.57)	−.0071 (0.50)	−.0058 (0.31)	−.0036 (0.16)
Self-employed	.1176 (5.39)	.1176 (5.40)	.1577 (5.62)	.0555 (1.61)
Black	−.0486 (2.17)	−.0479 (2.14)	−.0684 (2.22)	.0267 (0.83)
Other race	−.0358 (1.18)	−.0349 (1.15)	−.0025 (0.05)	−.0439 (1.15)
Years education	.0302 (11.81)	.0300 (11.74)	.0272 (8.00)	.0316 (8.06)
Time	−.0009 (1.48)	−.0015 (2.23)	.0012 (0.75)	−.0124 (6.53)
Constant	2.0767	4.8777	−.3368	26.7403
Adjusted R^2	.0743	.0566	.0671	.0296
N	11,954	11,954	7093	4861

Note: All equations are OLS and include eight region dummies. *t*-Statistics in parentheses. Excludes: 1979–1981, 1984, 1987, 1992 and is then every 2 years from 1994.

They found that union membership entered positively in an expected job loss equation. Column 1 finds the same for the longer time run of years from 1978 to 2018. The second column includes an interaction between the union membership variable and a dummy representing 1 if the sample was from 2000 to 2018, 0 otherwise. The union variable is significantly positive and the interaction term is significantly negative, showing no impact of unions from 2000 onward. This is confirmed in columns 3 and 4, which separates the sample and shows a significant positive effect in the first period and no union effect in the second. This likely helps to explain the positive coefficient in the job satisfaction equations: union workers are less fearful of job loss than previously, yet they continue to receive the substantial wage premium they have always received.

The above result is particularly striking since in the United States we see evidence from the GSS in the years since 2010 that there has been a big decline in the recorded responses on the
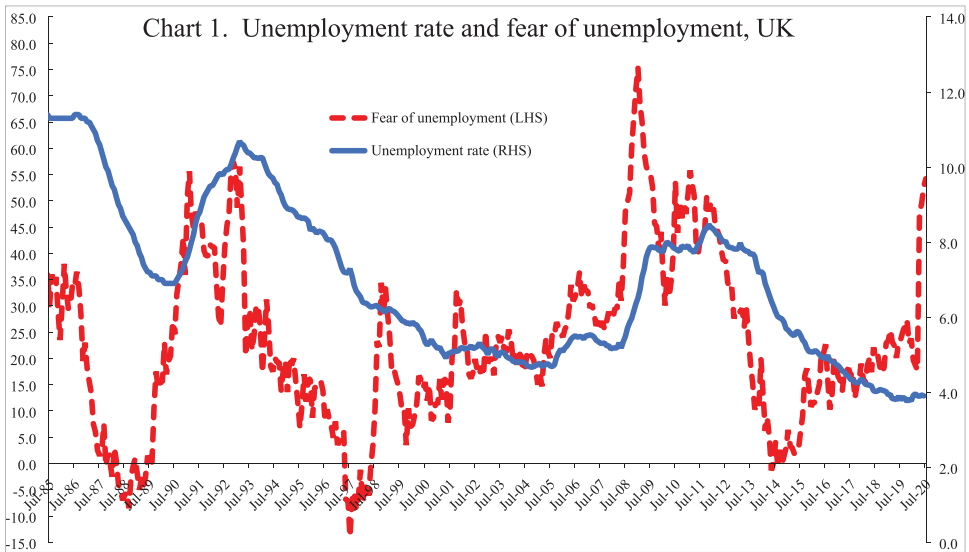
C h a r t 1   Unemployment rate and fear of unemployment, the United Kingdom
[Colour figure can be viewed at wileyonlinelibrary.com]

Note: The chart reports the answers to the following question. Q9. How do you expect the number of people unemployed in this country to change over the next 12 months? The number will… increase sharply (PP); increase slightly (P); remain the same; fall slightly (M); fall sharply (MM) or do not know. A score is constructed from the responses as follows: B = (PP + 1/2P) − (1/2 M + MM). So, the higher the score the higher unemployment is expected to be. As can be seen from above, the unemployment in the United Kingdom fell sharply from 2010.

Source: https://ec.europa.eu/info/files/user-guide-joint-harmonised-eu-programme-business-and-consumer-surveys_en

ability to find an equally good job: it would appear that the costliness of job loss, as perceived by workers, has been rising, such that they may value insurance against job loss more over time.

In the second part of Table 11, we now look at how easy it would be for a worker to find a comparable job, again extending results in Blanchflower and Oswald (1999) for 1977–1996 using the GSS. The question asked was as follows:

Q16. Jobfind—How easily could you find an equally good job? *Not easy* (= 1), *somewhat easy* (= 2) or *easy* (= 3).

We split the sample at 2000 rather than 2008 due to the small number of observations in the later period and splitting at 2008 the union coefficient is not statistically different from zero. The table shows that union workers find it more difficult to replace their jobs than non-union workers. The ease of finding a comparable job declines with age and rises with years of education. Column 2 shows a positive coefficient on the interaction term indicating that the gap between members and non-members in terms of the ease with which they could find a comparable job narrowed after 2000, although the union coefficient in column 4 is still sizeable, significant and negative, confirming union workers would still find it harder than their non-union counterparts to find a comparable job. The lack of a significant time trend in the first period contrasts with a negative and significant one in the second.

Chart 1 provides further intriguing evidence for the United Kingdom indicating that fear of unemployment is a lead indicator predicting rising unemployment. Workers' fears of

unemployment are subsequently realized, at least in the aggregate. The fear factor was rising from 1988 to 1993 and from 1997 to 2009 and especially from 2014 even as the unemployment rate fell from 7.2% at the start of 2014 to below 4% from December 2019 to May 2020. In all three upticks, the fear of unemployment started rising before the unemployment rate rose. For more on the fear of unemployment and its consequences, see Blanchflower (1991) and Blanchflower and Shadforth (2009).

In the last 20 years, we have seen a once in a generation financial market shock followed by a major downturn and then a global pandemic. In the United States even though the unemployment rate had fallen to record lows by the start of 2020, the employment rate was well below its level at the start of recession in January 2008 (62.9) and even further below its level at the start of the twenty-first century (January 2000 = 64.6). It remained below these levels in January 2020 (61.2) before falling to 55.1 in July 2020. In both the United States and the United Kingdom and other advanced countries around the world, wage growth was benign, and much lower that it had been historically at these low levels of unemployment (Blanchflower, 2021b). Underemployment, where workers had too few hours, remained above pre-recession levels around the world (Bell & Blanchflower, 2019). The unemployment rate gave a poor steer on the state of labour markets at the onset of the COVID-19 pandemic in the spring of 2020. Workers fear unemployment.

One possibility is that there are cohort effects: those who experience a negative economic shock—such as those living through the 1970s oil shocks—adjust their preferences and attitudes as a result of the shock.[9] Such shocks could result in a reappraisal of the value of the union good. To examine this possibility, we reran the equation in Table 2, column 1, estimating the partial correlation between union membership and job satisfaction in the GUSDTP, but we did so for eight separate decennial cohorts, the earliest being those born before 1930 and the latest being born in the 1990s.

The results are presented in the table below. We see that the introduction of birth cohorts does not affect our main result: union membership remains positive and statistically significant (last row). The overall result extends the column 1 of Table 2 finding, but adds seven cohort dummies, with little effect. However, the partial correlation between union membership and job satisfaction differs by birth cohort even though all of the cohorts had recently lived through the Great Recession. The negative correlation between unionization and job satisfaction is confined to birth cohorts born prior to the 1960s.[10] Freeman and Borjas's studies in the 1970s found a negative correlation among workers born even earlier. But subsequent birth cohorts exhibit a positive partial correlation. Early birth cohorts who became union members continued to express greater job dissatisfaction than their non-member counterparts even in the Gallup data for the period 2009–2013, despite experiencing a couple of deep recessions, while the union members among more recent birth cohorts had greater job satisfaction than their non-member counterparts, despite going through the Great Recession. Cohort effects matter, but they do not relate to the experience of recession, at least in a direct sense.[11]

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[9] We thank Doug Staiger for suggesting this to us.

[10] In a recent study following workers born in a single week in 1958 in Britain, Blanchflower and Bryson (2020) show those joining a union have persistently lower job satisfaction than those who do not across their whole life course.

[11] A referee has pointed out to us correctly that the estimates here do not control for industry and occupation effects, which does open the possibility of other interpretations. These controls are absent because they are unavailable in the gallup world poll (GWP) data.

Cohort	Union coefficient and *t*-stat	Sample *N*
<1930	−.1645 (1.14)	4393
1930–1939	.0325 (0.47)	22,494
1940–1949	−.0808 (3.70)	82,888
1950–1959	−.0242 (2.08)	156,594
1960–1969	.0439 (3.41)	137,935
1970–1979	.0759 (4.80)	100,936
1980–1989	.1293 (6.42)	81,946
1990–1999	.0317 (0.78)	30,990
All	.0243 (3.67)	618,176

Cohorts with positive union effects over time come to dominate those with negative effects.

4 | CONCLUSIONS

This article examines the partial correlation between union membership and worker well-being, and whether this has changed over time. It does so with social survey data for the United States and Europe. Contrary to early seminal studies, we find positive correlations between union membership and worker well-being across a range of metrics, both in the United States and Europe, since the turn of the century. Some earlier studies for Continental Western Europe have also found positive correlations between unionization and job satisfaction in the European Social Survey, suggesting negative associations in Anglophone countries can be explained, at least in part, by the stronger workplace presence of trade unions in those countries. Our findings for the United States are perhaps particularly surprising in the light of these institutional differences that persist.

The implication of the findings presented here is that, even in the presence of possible job or sectoral composition differences that might predispose union members to lose their jobs, union members no longer perceived their jobs as less secure than their non-member counterparts after the Great Recession. Put differently, union members may have benefited in relative terms from the downturn in the economy. This is, in essence, a facet of the counter-cyclical benefits of unionization that we have pointed to before in terms of wages (Blanchflower & Bryson, 2004) only this time it relates to job security. In these circumstances, the insurance component of the union good becomes more attractive, especially if one also continues to receive a union wage premium.

It has usually been assumed that unions do best for their members during a slump and worse in a boom. Alternatively, the effects we identify may be linked to the seemingly inexorable decline in union jobs. It may be that there is differential attrition in the union sector such that only the strongest are left—those capable of making a positive difference to their memberships. This is what Sir David Metcalf (1989) called 'batting average effects' where the team average rises as the worst batters are dropped.

What do we think may have happened to explain the switch in the partial correlation between union membership and job satisfaction from negative in the twentieth century to positive at the beginning of the twenty-first century? We make inferences based on our analysis of the data for the United States, since this is the longest time series available to us. What we know from that evidence presented here is as follows.

a. Union members continue to benefit from a very substantial wage premium relative to their non-member counterparts. It may have fallen a little in recent years but is broadly flat.
b. The ease of finding a comparable job if you lose your current job has been falling since 2000; union members are more likely to say that they would find it hard to find a comparable job if they lost their current job.
c. In the past, union members were more likely than non-members to say they expected to lose their job in the future, but this differential disappeared in the 2000s—from that point on there was no difference between members and non-members in their perception of likely job loss.
d. Among early birth cohorts—those appearing in the data of Freeman and Borjas, union members expressed greater job dissatisfaction than non-members—back in the 1970s and again today post-Great Recession, whereas today among birth cohorts born more recently job satisfaction is *higher* among members than it is among non-members.

Taken together, these four facts may help explain why it is that *ceteris paribus*, union members are now more likely than non-members to express job satisfaction. Perhaps this also spills over into other parts of their lives—expressed in their greater life satisfaction, happiness and other facets of well-being while, at the same time, making them less prone to stress.

It is also the case that in both the United States and Europe, an increasing percentage of the remaining unionized workers are found in white collar—often professional occupations—which may be more stable and enjoyable than the blue-collar jobs that previously dominated in the union sector. This is a secular trend that has been happening for some time. It may be that these changes in the industrial and occupational composition of unionized workers account for some of the changes in the relative well-being of union and non-union workers. This would be a fruitful issue for further research.

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