

Family, Place and the Intergenerational Transmission of Union Membership

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Abstract

This article examines the importance of family, gender and place to the intergenerational transmission of trade union membership. Using data from the British Household Panel Survey, we show that union membership among parents influences the union joining behaviour of young workers. These effects are particularly apparent among daughters and where both parents are members of unions. The effects of parental membership are also stronger among those born in areas characterized by relatively high levels of union density. Parental effects are therefore important to our understanding of the persistence of regional variations in levels of trade union membership.

1. Introduction

In the UK, membership of unions affiliated to the Trades Union Congress (TUC) fell below 6 million for the first time in 2012, continuing a decline which began in 1979 when trade union membership peaked at 13.2 million. Recent estimates published by the UK Government reveal that between 1995 and 2016, the percentage of employees who are a trade union member (referred to as ‘union density’) declined from 32 per cent to 24 per cent (DBEIS 2017). Some parts of the UK, however, remain more prone to unionization than others. Official estimates for 2016 reveal that union density in England ranges from 18 per cent in London and the South East to approximately 28 per cent across Northern England. Among the devolved nations of the UK, union density is estimated to be 29 per cent in both Scotland and Northern Ireland. Union density is highest in Wales at 36 per cent. In his analysis of the regional retreat of unionization in the UK, Monastiriotis (2007) confirms that the regional decline in union density has been uneven and cannot be explained by differences in the changing composition of employment. Beynon *et al.* (2012)

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also demonstrate the presence of significant geographical variations in trade union density, even within specific industrial sectors and occupational groups.

Regional variance can therefore not be accounted for by differences in the conditions faced by workers and the demands for unionization which these generate. Within areas where there is a historical legacy of trade unionism, labour appears to be easier to organize. Charlwood (2002) demonstrates that even among non-members in Britain, those who reside in areas of traditional industrial activity express the greatest willingness to join trade unions. Previous research has demonstrated that the formation of attitudes towards trade unionism begins at a young age (Lowe and Rastin 2000). Although labour market entrants exhibit the lowest levels of union membership (Blanchflower 2007), the limited empirical evidence that utilizes longitudinal data suggest that those who do join trade unions tend to do so during their early working lives (Arulampalam and Booth 2000; Budd 2010; Elias 1996). Understanding what factors influence the decisions of young workers to join trade unions is therefore important to both our understanding of the persistence of regional variations in trade union membership and for informing opportunities for the future organization of labour.

Political science research has examined the role of parents in influencing the political values of their children. The transmission of political orientation has been found to be more likely to occur where parents are more politicized and when both parents share the same political values (Oxley 2017). Evidence for the intergenerational transmission of union joining behaviour is, by comparison, limited. The most notable study to date is that of Blanden and Machin (2003), whose analysis of the British Household Panel Survey (BHPS) demonstrated that the children of unionized fathers were more likely to become members themselves. However, the influence of *both* mothers and fathers and geographical variance in the strength of intergenerational transmission has not been explored. This article provides new evidence regarding the importance of both family and place for the intergenerational transmission of union membership in the UK utilizing data from the BHPS from 1991 to 2009.¹ Analysis reveals that intergenerational transmission is strongest when both parents are members of trade unions and within those areas where there is a historical legacy of trade unionism.

2. Experience goods, socialization and union membership among the young

Experience Goods and Regional Variations in Union Membership

Holmes (2006) demonstrates that higher unionization rates in care homes and grocery stores in West Virginia and Pennsylvania are linked to the unionization of the old coal and steel sectors in those areas. The analysis reveals how historical proximity to once highly unionized workplaces spills over to the contemporary period and to other groups of workers and firms, including those in relatively unorganized sectors. In reflecting on his findings, Holmes (2006: 5) points to the importance of the 'experience good' model

of trade union membership (see Bryson and Gomez 2003; Bryson *et al.* 2004; Gomez and Gunderson 2004). Encompassing hard to quantify non-pecuniary benefits, the value of trade union membership can only be fully appreciated through its direct experience or via the experience of close associates. Knowledge about the value of experience goods often comes via personal recommendations rather than through formal advertising channels (Charlwood 2002; Machin 2002). Those working in regions of relatively low union density will therefore find it more difficult to assess the benefits of membership and will, in turn, consider their non-unionized state as optimal. If fewer workers experience unionism and see the true benefits, then fewer workers support unions and union density declines. This increases the never unionization rate and creates a self-perpetuating decline in union density (see Booth *et al.* 2010; Bryson and Gomez 2005). Regional trends in union membership therefore become path dependent.

Where there is a historical legacy of trade unionism, membership levels may persist due to the favourable attitudes that exist towards unions (Diamond and Freeman, 2002). Positive attitudes are relevant to the inter-generational transmission of union membership in an experience good model because the first generation signal the worth of the experience good through their positive attitudes to unionization, thus increasing the new generation's certainty about the benefits of unionization. If unionization was a search good this signal would not be relevant since the new generation would be certain what those benefits were prior to purchasing union membership. On the other hand, it is conceivable that positive attitudes towards unions may affect the probability inter-generational transmission of union membership, even if one does not conceive of union membership as an experience good. For instance, under Booth's (1985) social custom model of union membership, in a locality where the population views unions favourably, workers may derive higher utility from union joining because they acquire reputational benefits from the purchase. Conversely, if they choose to remain a non-member they may suffer reputational damage arising from the opprobrium of the local population, including their parents.

In their analysis of the persistence of union membership in Wales, Beynon *et al.* (2012) also emphasize the importance of examining the context and character of the union movement. They describe how the emergence of an industrial civilization within a rural environment contributed to the establishment of a particular kind of union movement in Wales. Based largely upon coal mining, the organization of labour was concentrated among largely unskilled workers with an emphasis on camaraderie and solidarity as opposed to occupational protectionism. Within these communities, the role of trade unions in Wales spilled over to life beyond the workplace. Historically received understandings of collective action and support were transmitted through family members and local communities. These values appear to persist in the values and attitudes of the Welsh population within the contemporary period (Huggins and Thompson 2015) and predispose both workers and employers to perceive trade union membership in a more positive light. The durability

of community unionism is not unique to Wales and is observed elsewhere in the UK, such as in the coalfields of County Durham (see Beynon 2014). We suspect that such differences in the strength of feeling towards trade unionism could also contribute to regional variance in the strength of intergenerational transmission.

The Importance of Parental Socialization

Given the difficulties associated with quantifying the benefits associated with membership, entrants to the labour market are likely to require some experience of unionism before deciding to join (Freeman and Diamond 2003: 40). Younger workers lacking the requisite exposure to unionism at the workplace will place greater emphasis on the guidance of families and friends (Bryson and Gomez 2003: 87–88; Bryson *et al.* 2004). While being part of social networks that are supportive of unions has been demonstrated to have a positive impact on union joining behaviour (Gomez *et al.* 2002; Griffin and Brown 2011; Haynes *et al.* 2005), evidence of the effect of families is limited. Parents can influence the union joining behaviour of their children in different ways. Cross-generational correlation can occur due to similarities in the jobs undertaken by parents and their off-spring. The transmission of left-wing political values, an important predictor of membership within the UK (Schnable and Wagner 2007), could also encourage union joining behaviour among the young. The intergenerational transmission of membership status may therefore be, at least in part, a by-product of cross-generational correlation in the determinants of union membership. The ‘experience good’ model however points to a more direct influence; parents provide important signals about the benefits of union membership to their children. In their analysis of the BHPS, Blanden and Machin (2003) find that, after accounting for commonalities in other predictors of membership between fathers and their children, young people with unionized fathers are almost twice as likely to be union members as those with non-union fathers. These effects were found to be even larger among those whose fathers were ‘active’ in their union, providing evidence that socialization within the family plays an important role in encouraging trade union membership among younger workers.

The importance of parental socialization in contributing to cross-generational correlation of political values has been studied extensively by political scientists (Jennings and Niemi 1968, 1974). Guided by social learning theory, much intergenerational learning is the result of children observing and taking cues from their parental role models. The key socialization period is regarded as being between the ages of 15 and 25 (Franklin 2004; Grasso 2014; Plutzer 2002; Van der Eijk and Franklin 2009), although some suggest that political learning may begin earlier (Bartels and Jackman 2014; Van Deth *et al.* 2011). Oxley (2017) describes some of the key themes of this literature. First, parents are regarded as being especially influential role models because of the time children spend with them and the warmth that children generally feel towards their parents. Second, the transmission

of political values is more likely to occur where parents are more highly politicized. Third, the transmission of political affiliation to children is more successful when parents share the same political identification. Fourth, among politically heterogeneous parents, children are more likely to identify with the parent of the same-sex. Finally, motherhood is regarded as assuming a more central role in the lives of women than fatherhood does in the lives of men (Rossi 1993). Consistent with this, evidence generally suggests that mothers exert a comparable, if not stronger influence over the political orientation of their daughters than fathers do over their sons (Acock and Bengtson 1978; Boonen 2017; Dotti Sani and Quaranta 2015; Oxley 2017; Zuckerman *et al.* 2007).

The political science literature therefore has important implications for understanding the intergenerational transmission of union membership. First, the influence of mothers and fathers needs to be considered. As elsewhere, the UK has experienced an increasing feminization of the trade union movement in recent decades. Levels of union density among women have exceeded those of men since 2002, while women have constituted the majority of union members in the UK since 2005, primarily due to the persistence of membership levels among women employed in the public sector (DBEIS 2017). Research has however demonstrated that while women appear no less supportive of the overall aims of the trade union movement (Schur and Kruse 1992), the gendered nature of union organizing practices can contribute to less favourable attitudes among women towards unions (Kirton 2004; Tomlinson 2005; Yates 2006). The relative influence of mothers and fathers upon the joining behaviour of their children is therefore an empirical question. Second, geographical variance in the strength of intergenerational transmission between areas of high and low density may be expected due to differences in the likelihood that both parents are union members and variations in the strength of feeling towards union membership. Third, parents are expected to exert a relatively strong effect over the union joining behaviour of their children compared to other influences.

A Note on Domestic Mobility

While parents may be of particular importance in encouraging union membership among young workers, other socialization agents within the community or the workplace may subsequently shift or reinforce early attitudes towards trade unionism (Budd 2010). If friends, colleagues and employers can each influence the union joining behaviour of young workers, geographical mobility may be able to provide an insight as to the persistence of familial socialization in comparison to other influences. Studies of union membership among international migrants demonstrate the importance of home country effects in shaping joining behaviour (Healy *et al.* 2004; Kranendonk and de Beer 2016; Milkman 2000, 2007). However, the effects of domestic mobility have not been considered. Internal migration within the UK is dominated by the young and more highly educated early career

professionals (Faggian and McCann 2006). Patterns of migration are complex, but are most commonly observed as the movement of these workers towards ‘escalator regions’; most notably London and its neighbouring commuting regions (Fielding 1992; Gordon *et al.* 2015). These centres of economic growth attract human capital that subsequently experiences relatively upward social mobility compared to those who remain within more peripheral areas. Having acquired the economic returns associated with working in escalator regions, patterns of outward migration are also observed as people move to regions that offer a wider range of amenities, often associated with family formation (Fielding and Halford 1993; Whisler *et al.* 2008). Such patterns of mobility provide the opportunity to explore the persistence of family effects both in the face of significant changes in other influences and among a group of young adults whose characteristics would be expected to be quite different to those who choose to remain living within their region of birth.

3. Data

The BHPS was a study that tracked individuals and households over time. At its inception in 1991, the BHPS contained information on approximately 5,500 households and interviewed 10,300 adults. Respondents were re-interviewed each successive year. Children within these households became eligible for a full interview as they reached the age of 16 years, as did people who joined these households. Those who left originally sampled households were followed up. A major development at Wave 9 (1999) was the recruitment of two additional samples to the BHPS in Scotland and Wales to facilitate independent country-level analysis and comparisons with England. Within both Wales and Scotland, this increased the number of individual respondents to over 3,000 in 1999. A new sample of those domiciled in Northern Ireland was also added at Wave 11 (2001) which achieved interviews with approximately 3,700 individuals during its first year (Taylor 2010).

To explore intergenerational transmission in union status, we utilize questions on trade union membership that were included in the individual questionnaire. During Waves 1–7, employees who completed the full interview and who had either worked during the survey reference week or those who had a job but had not worked (due to sickness or injury, holiday, maternity leave, etc.) were asked the following questions:

1. Is there a trade union, or similar body such as a staff association, recognized by your management for negotiating pay or conditions for the people doing your sort of job in your workplace?
2. Are you a member of this trade union/association? (If yes to question 1).
3. Are you a member of any trade union or similar body? (If no to question 1 or 2).

The third question was removed following Wave 7 and so for consistency we only utilize information from questions 1 and 2 in the derivation of union membership. During Waves 2–4, these questions were also only asked of individuals who had changed job since the previous wave. To maximize our sample, during these Waves we impute union membership status from lagged values for those individuals who remain in the same job on the assumption that people do not generally leave unions unless there is a change of job (Bryson *et al.* 2005).

The derivation of our analytical sample broadly follows that of Blanden and Machin (2003). Due to the household nature of the survey, we are able to identify people who are living at home with either or both of their parents. Consistent with the political science literature, to capture the effects of parental socialization as opposed to subsequent labour market experience, we only include individuals who can be observed living with their parent(s) for at least one wave between the ages of 16 and 25. It is acknowledged that measurement error could contribute to a downward bias in our estimates if attitudes towards trade union membership are formed earlier. The availability of membership data for parents can vary year on year due to spells of non-employment, self-employment or because an interview was conducted with a proxy respondent. Parents are classified as union members if they are a member during *any* year when their children are observed to be living with them. This time invariant measure of parental union orientation reflects our interest in identifying a persistent effect of parental membership on union joining behaviour of young workers.

The employment trajectories of these young workers are traced across as many waves for which data are available for them. The children of workless parents are excluded from our main analysis as the preferences of such parents towards union membership cannot be ascertained. Those who are self-employed are also excluded as questions about union membership are not asked of them. The children of self-employed parents are however retained; their parents being treated as non-members reflecting the low rate of membership (7 per cent) among this group (DBEIS 2017). Geographical variations in the strength of any parental effect are examined with respect to the off-spring's place of birth. This acknowledges the evolution of attitudes towards trade unionism that may have occurred among parents during their working lives. This approach also abstracts from the difficulties associated parents being born in different places and in defining the mobility patterns of young workers if their place of birth was different to that of their parents. Those who are either migrants to the UK or who are children of migrants are excluded due to the complexities of empirically capturing the union joining behaviour of these groups (Kranendonk and de Beer 2016).

The analysis which follows is based upon a sample of 3,435 individuals for whom parental membership status can be derived. These respondents are observed to have valid responses for trade union membership for an average of 5.5 waves, contributing to an overall sample size of 18,982 observations. The characteristics of this sample are outlined in Annex 1. The most pertinent

TABLE 1
Trade Union Membership by Parental Membership Status and Gender^a

	<i>Females</i>		<i>Males</i>		<i>All</i>	
	<i>Density</i>	<i>Col%</i>	<i>Density</i>	<i>Col%</i>	<i>Density</i>	<i>Col%</i>
All Employees						
Parent(s) Member(s)	23.1 <i>1.36</i>	49.0	19.8 <i>1.54</i>	54.1	21.2 <i>1.43</i>	51.8
<i>Of whom</i>						
Both Parents Members	27.0 <i>1.59</i>	13.6	20.0 <i>1.56</i>	13.8	23.2 <i>1.56</i>	13.7
One Parent Member	21.6 <i>1.27</i>	35.4	19.8 <i>1.54</i>	40.4	20.5 <i>1.38</i>	38.1
<i>Of whom</i>						
Father Member	23.1 <i>1.36</i>	17.0	22.1 <i>1.72</i>	20.6	22.5 <i>1.51</i>	18.9
Mother Member	20.2 <i>1.19</i>	18.4	17.4 <i>1.35</i>	19.8	18.6 <i>1.25</i>	19.1
Parent(s) Non-Member(s)	17.0 <i>1.00</i>	51.0	12.9 <i>1.00</i>	45.9	14.8 <i>1.00</i>	48.2
Total	20.0	100	16.6	100	18.2	100
Pooled Observations	9,177		9,805		18,982	
Unique Individuals	1,664		1,771		3,435	

^aData are weighted. Figures in italics refer to an index of union membership measured relative to those whose parent(s) were not members of trade unions (= 1).

feature of our sample is their relatively young age (mean = 24.2 years). Average union density is estimated to be 18 per cent, although this increases steadily with age, rising from 8 per cent among those aged 25 or under to 38 per cent among those aged 36 or older. The average age of union members in our sample (26.9 years) is therefore older than that of non-members (23.6 years). An obvious concern is that the requirements associated with BHPS respondents being included within our analysis will somehow contribute to the development of a sample which is unrepresentative of the wider population of younger workers. There is, however, a high degree of comparability between these age-based estimates of union density and official statistics derived from the LFS during the period covered by our analysis (ONS 2001).

4. Descriptive analysis

Table 1 presents descriptive statistics related to the intergenerational transmission of union membership among our sample of young workers. Among those whose parent(s) are not observed as having been members of trade unions, union membership (density) among our sample of young workers is estimated to be 15 per cent. Where either or both parents are identified as having been a member of a trade union, union membership increases to 21 per cent. Based upon an index of relative union membership presented in italics, this represents a 43 per cent (1.43) differential in union

TABLE 2
Trade Union Membership by Parental Membership Status and Place of Birth^a

	<i>Low Density Areas</i>		<i>High Density Areas</i>		<i>All</i>	
	<i>Density</i>	<i>Col%</i>	<i>Density</i>	<i>Col%</i>	<i>Density</i>	<i>Col%</i>
Ald Employees						
Parent(s) Member(s)	16.7	47.0	26.4	58.5	21.2	51.8
	<i>1.26</i>		<i>1.50</i>		<i>1.43</i>	
Of whom						
Both Parents Members	18.5	11.0	27.4	17.4	23.2	13.7
	<i>1.39</i>		<i>1.56</i>		<i>1.57</i>	
One Parent Member	16.1	35.9	26.0	41.1	20.5	38.1
	<i>1.21</i>		<i>1.48</i>		<i>1.39</i>	
Parent(s) Non-Member(s)	13.3	53.0	17.6	41.5	14.8	48.2
	<i>1.00</i>		<i>1.00</i>		<i>1.00</i>	
Pooled Observations	9,048		9,934		18,982	
Individuals	1,524		1,911		3,435	
Employees in Workplaces Covered by Unions						
Parent(s) Member(s)	41.2	51.9	56.4	63.5	48.9	57.2
	<i>1.03</i>		<i>1.22</i>		<i>1.15</i>	
Parent(s) Non-Member(s)	40.0	48.2	46.3	36.5	42.5	42.8
	<i>1.00</i>		<i>1.00</i>		<i>1.00</i>	
Total	40.6	100	52.7	100	46.2	100
Pooled Obs	3,173		4,094		7,267	
Individuals	801		1,077		1,878	
Geographical Mobility						
<i>Area of Residence</i>						
Low Density Area	14.9	95.0	24.0	12.4	15.6	60.6
High Density Area	15.4	5.0	22.6	87.6	22.0	39.4
Total	14.9	100	22.7	100	18.2	100
Pooled Observations	9,048		9,934		18,982	
Individuals	1,524		1,911		3,435	

^aSee notes to Table 1.

density between the off-spring of unionized and non-unionized parents. Differences also emerge in terms of the number of parents who are union members. Where just one parent is identified as a union member, the differential in membership among young workers is estimated to be 38 per cent. Where both parents are identified as having been members of trade unions, this differential increases to 56 per cent. Analysis by gender suggests that this pattern is being driven primarily by daughters, whose membership status is particularly responsive to both parents being identified as union members. Where only one parent is observed as having been a member of a union, Fathers appear to exert a greater influence over the membership status of their both their off-spring, particularly their sons.

Table 2 considers whether the intergenerational transmission of union membership varies by place of birth. Official estimates (see DBEIS 2017) reveal that Northern England (the North East, the North West and Yorkshire and Humberside) and the three Devolved Nations of the UK (Wales, Scotland and Northern Ireland) consistently exhibit above average levels of union membership. For the purpose of our analysis, these areas are therefore

classified as 'High Density' areas. The remaining areas of England are referred to as 'Low Density' areas. The upper panel of Table 2 demonstrates the higher levels of union membership that exist among young workers who are born in High Density areas (23 per cent compared to 15 per cent). Within both areas of High and Low union density, rates of union membership are higher where at least one parent is observed as having been a union member. The index of relative membership demonstrates that this differential is proportionately higher in areas of High Union density (50 per cent compared to 26 per cent). These differences persist after accounting for the number of parents who are union members. Such geographical variance may simply reflect differences in the opportunities to join unions. The second panel of Table 2 demonstrates that even after accounting for differences in union coverage, the children of union members retain a higher propensity to join unions, although this is only apparent in High Density areas.

The lower panel of Table 2 considers the effects of geographical mobility and trade union membership. Due to the available sample sizes, we are unable to track union joining behaviour as people move. Mobility is therefore only considered in terms of a simple comparison between place of birth and place of current residence and is unable to account of the time and context with which mobility occurs. Nonetheless, further analysis confirms that the characteristics of these migrants reflect those identified in previous research. First, migration from areas of High to Low Density ('inward migration') is more commonly observed (12 per cent among those born in High Density areas) than migration from areas of Low to High Density (5 per cent among those born in Low Density areas). Analysis not presented also reveals that domestic migrants are more likely to hold a Higher Education qualification (32 per cent compared to 13 per cent among non-migrants); are more likely to be employed within Managerial, Professional and Associate Professional Occupations (27 per cent compared to 21 per cent) and, relatedly, are more likely to have exhibited upward social mobility (29 per cent compared to 21 per cent). In terms of union joining behaviour, the analysis reveals that children who move from areas of High to Low density exhibit a higher rate membership (24 per cent) than the 'natives' of Low Density areas (15 per cent). Likewise, those who move from areas of Low to High density exhibit a lower rate of membership (15 per cent) than the 'natives' of High Density areas (23 per cent). These comparisons appear consistent with the importance of initial place compared to subsequent influences.

5. Multivariate analysis

Methodological Approach

The intergenerational transmission of union membership could simply be the result of cross generational correlation in factors that determine union membership, including the types of jobs held or political orientation. To examine whether parents exert a persistent and direct effect upon the joining

behaviour of their children, we ran a series of logistic regressions that model the probability of union membership among our sample of young workers. Models of the following general form are estimated:

$$MEM_{it} = \alpha + PC_{it}\beta + JOB_{it}\gamma + VOTE_{it}\lambda + PMEM_i\pi + \varepsilon_{it}$$

The analysis is based upon longitudinal data from 18 waves of the BHPS. The dependent variable MEM_{it} identifies whether or not an employee i is a member of a union during period t . Our key variables of interest are those identifying parental membership status ($PMEM_i$). By simultaneously controlling for personal characteristics (PC_{it}), job-related characteristics (JOB_{it}) and political preferences ($VOTE_{it}$), the model identifies the separate and additional effect of parental trade union membership on the membership status of young adults within our sample. The control variables utilized closely reflect those used by Blanden and Machin (2003) so that the comparability of results can be assessed and include key determinants of union membership such as occupation, industry, sector of employment and workplace size. While the derived measure of parental membership status is time-invariant, other personal and job-related characteristics can vary over time as appropriate. Depending upon family structure and the employment status of mothers and fathers, parental membership status may be measured with reference to one or both parents. Due to the complexities associated with this, unlike Blanden and Machin (2003), we do not include controls for the attributes of employed parents and whether these attributes are shared by their children. However, we do control for the social mobility of these young workers, albeit measured at a relatively early stage of their working lives. The effect of the inclusion of parental attributes within separate analyses of fathers and mothers is considered as part of our sensitivity analyses presented later.

Within our analysis, parental membership is first captured through the inclusion of a simple dummy for union membership among either parent. The second stage replaces this measure with dummy variables that separately identify whether one or both parents were union members. Third, we consider whether the effect of parental membership differs by gender through the introduction of variables that separately identify parental membership among sons and daughters. The fourth stage examines the separate influence of mothers and fathers upon the joining behaviour of young workers. Finally, the interaction between parental membership and place of birth is examined through the inclusion of variables that identify parental membership among those born in areas of high and low union density. Within all regressions, assessments of statistical significance are based upon robust standard errors that account for repeated observations across individuals. To show the derivation of our explanatory variables and their estimated effects upon union membership, the full results from our first regression model are presented in Annex 2. Finally, the sensitivity of our results to alternative assumptions regarding the derivation of our analytical sample, control variables used and alternative estimation techniques are examined in Annex 3.

TABLE 3
Multivariate Estimates of Cross-Generation Correlations in Union Status by Gender and Parental Membership Status^a

	<i>All employees</i>			
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>
Gender				
Female				
(ref Males)	1.318** (2.50)	1.313** (2.46)	1.177 (0.99)	1.141 (0.85)
Parental Membership Status (Reference Category: Children of non-unionized parents)				
Parent(s) Members	1.427*** (3.43)			
Composition of Parental Membership (Reference Categories: Children of non-unionized parents)				
Both Parents Members		1.866*** (4.36)		
One Parent Member		1.292** (2.27)		
Composition of Parental Membership and Gender (Reference Categories: Daughters/sons of non-unionized parents)				
Both Parents Members: Daughter			2.296*** (3.89)	
One Parent Member: Daughter			1.354* (1.86)	
Both Parents Members: Son			1.526** (2.29)	
One Parent Member: Son			1.233 (1.35)	
Independent Treatment of Fathers/Mothers Membership Status (Reference Categories: Daughters/sons of non-unionized fathers/mothers)				
Father Member: Daughter				1.543*** (2.79)
Father Member: Son				1.270* (1.68)
Mother Member: Daughter				1.426*** (2.33)
Mother Member: Son				1.198 (1.29)
Wald Chi ²	1058.8	1066.0	1067.2	1060.4
R-sqd	0.258	0.260	0.260	0.260
Obs			18,982	

^aOdds ratios are estimated from a logistic regression of union membership (U_{it}). See text and Annexes 1 and 2 for a description of control variables. Z statistics reported in parentheses. *, ** and *** indicate significance at the 10%, 5% and 1% level, respectively.

Results

Table 3 presents multivariate estimates of the effects of parental membership status derived from logistic regressions as described above, expressed as odds ratios. Model 1 reveals that young workers are 43 per cent more likely to be a member of a union if either of their parents were also observed to be union members compared to those with parents who were not union

members. Model 2 considers the number of parents who are union members. Young workers are 87 per cent more likely to join a union when both parents are observed to be union members compared to those with non-unionized parents. This is compared to a 29 per cent increased likelihood where just 1 parent was identified as a union member. These coefficients are estimated to be significantly different from each other (Chi^2 6.72, $\text{prob} > \text{Chi}^2 = 0.01$). Model 3 considers the effects of parental membership by gender. The analysis suggests that both parents being union members appears to have a stronger influence on the joining probabilities of daughters (odds ratio of 2.30***) than sons (odds ratio of 1.53**), although these coefficients are not estimated to be significantly different from each other. The reason for this is made clear in Model 4. While the membership status of both mothers and fathers influences the joining behaviour of daughters, the membership status of fathers is only estimated to be weakly associated with the joining behaviour of sons (odds ratio of 1.27*).

Table 4 examines whether the effect of parental membership upon union joining behaviour varies for young workers according to their place of birth. Model 5 reveals that after controlling for other personal and job-related characteristics, evidence of intergenerational transmission is only statistically significant among those born in High Density Areas.² The difference in the strength of intergenerational transmission between those born in areas of High (odds ratio of 1.68***) and Low Density (1.15) are significant at the 10 per cent level (Chi^2 3.11, $\text{prob} > \text{Chi}^2 = 0.08$). Model 6 confirms that these differences persist when accounting for the number of parents who are union members, although the smaller sample sizes associated with these more detailed groups means that these differences are no longer statistically significant. The analysis also reveals that having just one parent who is a union member is only found to significantly influence the joining behaviour of young workers born in High Density Areas. Conversely, among those born in Low Density Areas, even both parents being union members has no statistically significant effect on the likelihood of union membership among young workers. Restricting the analysis to those employed in workplaces where trade unions are present, the effect of parental membership remains statistically significant (Model 8), whilst the relative strength of intergenerational transmission within High Density Areas cannot be accounted for by the increased opportunity to join unions.

The bottom panel of Table 4 examines the effects of geographical mobility upon union joining behaviour. These effects are considered through the introduction of a set of 8 mutually exclusive dummy variables which distinguish parental membership, place of birth and migration status. The reference category refers to the off-spring of non-members who were born in areas of low union density and who remain living in such areas (referred to as non-migrants). The analysis of all employees (Model 7) indicates that non-migrants residing within High Density Areas who are the children of union members exhibit the highest likelihood union membership (odds ratio

TABLE 4
Intergenerational Transmission of Union Membership by Place of Birth^a

	<i>All employees</i>			<i>Where union present</i>		
	<i>Model 5</i>	<i>Model 6</i>	<i>Model 7</i>	<i>Model 8</i>	<i>Model 9</i>	<i>Model 10</i>
Parental Membership Status						
(Ref. Categories: Children of non-union parent(s) born in area)						
Low Density Areas:	1.153			1.063		
Parent(s) Member(s)	(0.86)			(0.36)		
High Density Areas:	1.675***			1.475***		
Parent(s) Member(s)	(3.83)			(2.70)		
Composition of Parental Membership						
(Ref. Categories: Children of non-union parent(s) born in area)						
<i>Low Density Areas</i>						
Both Parents Members	1.431			1.376		
	(1.33)			(1.29)		
One Parent Member	1.074			0.978		
	(0.39)			(-0.12)		
<i>High Density Areas</i>						
Both Parents Members	2.211***			1.721***		
	(4.68)			(2.91)		
One Parent Member	1.498***			1.379**		
	(2.76)			(2.08)		
Parental Membership and Migration						
(Reference Category: Children of non-unionized parents born and living within Low Density Areas)						
<i>Low Density Areas</i>						
Non-Migrants: Parent(s)			1.070			0.944
Members			(0.39)			(-0.33)
Non-Migrants: Parent(s)			ref.			ref.
Non-Members						
Migrants: Parent(s)			1.624*			1.469
Members			(1.66)			(1.10)
Migrants: Parent(s)			0.530*			0.388**
Non-Members			(-1.79)			(-2.48)
<i>High Density Areas</i>						
Non-Migrants: Parent(s)			1.863***			1.563***
Members			(4.31)			(2.90)
Non-Migrants: Parent(s)			1.135			1.112
Non-Members			(0.78)			(0.60)
Migrants: Parent(s)			1.458			1.653**
Members			(1.47)			(1.97)
Migrants: Parent(s)			0.719			0.650
Non-Members			(-0.84)			(-0.87)
Wald Chi ²	1080.8	1089.6	1097.7	472.0	476.4	475.7
R-squared	0.258	0.260	0.259	0.158	0.159	0.161
Observations		18,982			7,267	

^aSee notes to Table 3.

of 1.86). On the other hand, migrants of non-unionized parents exhibit the lowest levels of union membership, irrespective of whether they were born in High Density (odds ratio of 0.72) or Low Density Areas (odds ratio of 0.53*). Combined with a lack of parental socialization, such findings could reflect the more individualistic nature of migrants which makes them

particularly unreceptive to unionization (see McGovern 2007: 228). The children of unionized parents who migrate to Low Density Areas exhibit a reduced likelihood of union membership compared to those who remain behind (odds ratio of 1.46). A differential between the migrant children of members and non-members born in High Density Areas therefore persists, although these coefficients are not significantly different from each other (Chi^2 2.59, $\text{prob} > \text{Chi}^2 = 0.11$). Irrespective of the importance of parental socialization, the opportunity to join a union would be expected to be reduced for those who have migrated to Low Density Areas. Among those employed in workplaces where trade unions are present (Model 10), we observe that migrants from High Density areas who are the children of union members are just as likely to be union members (odds ratio of 1.65**) as those who remain behind (odds ratio of 1.56***). The difference in the relative odds of union membership between the children of unionized parents who were both born and remain living in Low Density Areas (0.94**) and those born in High Density Areas who move to Low Density Areas (1.65**) is statistically significant at the 5 per cent level (Chi^2 4.84, $\text{prob} > \text{Chi}^2 = 0.03$).

The results of our sensitivity analyses are presented in Annex 3. First, our results are not affected by the exclusion of controls for political preference (Model A1), a potentially important mechanism underpinning the intergenerational transmission of union membership. Our results are similarly not affected by the utilization of parental birthplace (defined with reference to the household head) in our derivation of High and Low Density Areas (A2) or the inclusion of the West Midlands (arguably an area with a historical legacy of trade unionism and which displays levels of union density that are close to the average for the UK) as a High Density Area (A3). Due to the time invariant nature of our measures of parental membership, we have not been able to utilize fixed effects techniques to control for omitted variable bias. Whilst controlling for random effects does change the size of our coefficients, the strength of intergenerational transmission remains stronger among those born in High Density areas (A4). In terms of the derivation of our sample, our results are not affected by the inclusion of second generation migrants (A5) or those with wholly non-working parent(s) who, for the sake of this exercise, are treated as non-members (A6). Our estimates are similarly unaffected when the sample is restricted to those whose parent(s) are both working (A7) and are both employees (A8). The children of union members do appear within our sample more frequently than those of non-members (5.7 compared to 5.3 times). Our findings are, however, robust to the utilization of one randomly selected wave of data per individual (A9). Finally, we examine the influence of mothers and fathers separately. Consistent with Model 4, the overall effect of fathers' membership status (A10) is estimated to be greater than that of mothers' (A11). We also note that the estimated effect of fathers' membership status (A12) is very similar to that estimated by Blanden and Machin (2003) in their earlier analysis of the BHPS (1.69**). The relative strength of intergenerational transmission within High Density Areas remains unchanged.

6. Concluding comments

The existence of intergenerational transmission of union status indicates the importance of socialization within the family in encouraging trade union membership among young workers. Our analysis reveals that, after controlling for other characteristics, union membership among parents has a separate and additional effect on the union joining behaviour of young workers. As with the transmission of political values, intergenerational transmission of union membership is most effectively encouraged when both mothers and fathers are members. However, the influence of parental membership is lower for sons, who appear to be both relatively uninfluenced by their mothers and, compared to daughters, less influenced by their fathers. In terms of geographical variations, evidence of intergenerational transmission only emerges among those born within areas of high union density; that is, the devolved nations of the UK and Northern England. These effects persist after accounting for the combined influence of both parents and the higher levels of union coverage within these areas. Our analysis of geographical mobility also appears to suggest that the relative strength of intergenerational transmission among those born in High Density areas is not the result of otherwise unobserved characteristics that are specific to those who choose to remain living in these areas. Intergenerational transmission persists among those who move away, particularly among those employed at covered workplaces. These findings point to the importance of parental effects compared to other socialization agents.

There are limitations to our analysis. First, our distinction between High and Low Density areas is blunt and evidence of the strength of intergenerational transmission within particular localities may therefore be disguised. Our examination of geographical mobility is also limited and a more accurate examination of the changes in union joining behaviour that occurs around episodes of mobility is required. These issues may be addressed with the recent incorporation of the BHPS sample, consistently coded, within its larger successor study Understanding Society (see Fumagalli *et al.* 2017). The implications of the absence of information about union membership among the self-employed also need to be considered. In the context of low levels of membership among the self-employed and evidence of the intergenerational transmission of employment status (Sorenson 2007), the self-employed may also be characterized by the transmission of non-membership of trade unions. Workforce-based estimates of intergenerational transmission could therefore conceivably be larger than employee-based estimates, particularly within areas of low union density where rates of self-employment are highest (Brown 2018). The effects of incorporating the self-employed are, however, unclear and should not detract from the importance of insights provided by employee-based estimates, who account for 85 per cent of the working population. Finally, in terms of the relative influence of mothers and fathers, our findings generally resonate with research related to the transmission of political values. However, further qualitative

approaches are required to understand the processes of socialization within the family within the context of union membership.

Regional variance in the strength of intergenerational transmission contributes to our understanding of why the decline in regional trade union density across the UK has not been uniform and why this uneven retreat cannot be explained simply by changes in the regional composition of employment. Our results support the analysis of Lévesque and Murray (2010) who emphasize that opportunities for union renewal will depend upon ‘path-dependent assets’ that are available to the union movement. In addition to union infrastructure, these assets encompass levels of common collective identity within the workplace, network embeddedness (the links of unions to other actors) and narrative resources — ‘the range of values, shared understandings, stories and ideologies that aggregate identities and interests and translate and inform motives’ (Lévesque and Murray 2010: 339). While our analysis demonstrates the opportunities that exist for the continued organization of labour within areas where there was a historical legacy of trade unionism, it also raises concerns that require further investigation. Within areas of high union density, if the trade union movement had been able to build upon the favourable attitudes that exist towards unions and organize the children of non-members, the strength of intergenerational transmission would be reduced. This does not appear to have happened, even within workplaces where unions are present. This raises questions about the efficacy of existing organizing practices in terms of the revitalization of the labour movement. In common with Budd’s (2010) critique of existing job-centric approaches, our results point to the potential importance of place-based approaches to the organization of labour which also seek to reach out to non-unionized groups to support the revitalization of the labour movement.

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Notes

1. University of Essex, Institute for Social and Economic Research. (2010). *British Household Panel Survey: Waves 1–18, 1991–2009*. [data collection]. 7th Edition. UK Data Service. SN: 5151, <http://doi.org/10.5255/UKDA-SN-5151-1>.

2. More detailed area definitions revealed statistically significant evidence of inter-generational transmission among those born in the North of England (1.46*), Wales (1.88**), Scotland (1.92***) and Northern Ireland (2.03*).

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ANNEX 1

Union Membership by Selected Personal and Employment-Related Characteristics

	<i>Sample distributions</i>			<i>Membership rate (%)</i>
	<i>Non-members</i>	<i>Members</i>	<i>All</i>	
Gender				
Female	44.9	50.5	45.9	20.0
Male	55.1	49.5	54.1	16.6
Age				
15–20 years	36.1	14.1	32.1	8.0
21–25 years	31.3	31.5	31.4	18.2
26–35 years	29.3	45.3	32.2	25.5
36+ years	3.3	9.1	4.3	38.1
Mean Age (years)	23.6 years	26.9 years	24.2 years	
Ethnicity^a				
White	98.6	98.6	98.6	18.6
Non-White	1.1	1.3	1.3	20.7
Employer Type				
Private firm	86.0	50.5	79.6	11.5
Central Government	2.3	5.3	2.8	34.1
Local Government	4.7	26.2	8.6	55.1
NHS/HE	2.1	13.9	4.3	59.4
Not for Profit	2.0	1.3	1.8	13.2
Other	1.8	1.4	1.7	15.0
Don't Know/Missing	1.1	1.4	1.2	21.0
Workplace Size				
0–25	43.4	20.1	39.2	9.3
25–49	13.5	14.6	13.7	19.3
50–499	29.6	36.2	30.8	21.4
500–999	5.2	7.4	5.6	23.9
1,000 or more	6.9	21.2	9.5	40.4
Don't Know/Missing	1.4	0.6	1.3	8.6
Industry^b				
Mining and Utilities	8.0	7.6	7.9	17.4
Manufacturing	15.7	15.0	15.6	17.5
Wholesale, Distribution	35.1	9.8	30.5	5.9
Transport, Storage and Communications	5.2	7.2	5.6	23.4
Finance and Business	16.8	13.3	16.2	14.9
Other Services	19.0	47.0	24.1	35.4
Don't Know/Missing	0.1	0.0	0.1	1.5
Occupation (SOC90)^c				
Managers and Administrators	11.4	6.2	10.4	10.8
Professional Occupations	4.3	13.0	5.9	39.9
Associate Professional and Technical Occupations	9.7	16.3	10.9	27.3
Clerical and Secretarial Occupations	19.0	16.7	18.6	16.3
Craft and Related Occupations	11.9	13.4	12.1	20.0
Personal and Protective Service Occupations	14.2	13.8	14.2	17.7
Sales Occupations	14.5	4.7	12.7	6.7

(Continued)

ANNEX 1
Continued

	<i>Sample distributions</i>			<i>Membership rate (%)</i>
	<i>Non-members</i>	<i>Members</i>	<i>All</i>	
Plant and Machine Operatives	5.8	9.0	6.4	25.4
Other Occupations	8.6	6.5	8.2	14.3
Don't Know/Missing	0.7	0.5	0.7	15.0
Social Mobility^d				
Upward	18.8	32.1	21.2	27.5
No change	28.4	31.3	28.9	19.6
Downward	52.2	36.0	49.3	13.3
Don't Know/Missing	0.6	0.6	0.6	19.0
Political Affiliation^e				
Conservative	19.6	16.1	19.0	15.4
Labour	27.0	36.3	28.7	23.0
Liberal Democrat	9.9	10.2	9.9	18.7
Other	3.9	2.7	3.7	13.6
None	18.2	17.2	18.0	17.3
Inapplicable, Don't Know/Missing	21.5	17.5	20.7	15.3
Total	100	100	100	18.2
	15,585	3,397		18,982

^aControl variables within the regression models distinguish between those of White, Black, Asian and Other ethnicity. Descriptives not presented due to small sample sizes.

^bSIC92 replaced SIC80 as classification for industry of employment from Wave 12 of the BHPS. Data for Waves 1–11 has been converted to SIC92 with the aid of SIC mapping resources developed by Jennifer Smith (see: <http://www2.warwick.ac.uk/fac/soc/economics/staff/jcsmith/sicmapping/>).

^cControl variables within the regression models utilize the more detailed ($N = 22$) Sub-Major Groups of SOC90.

^dBased upon a comparison of the social class position, as defined by the National Statistics Socioeconomic Classification (NS-SEC), of the young worker (defined on an individual basis) with that of their parents (defined on a household basis).

^ePolitical affiliation defined with respect to whether respondents support a political party or which party they feel closest to. If none, respondents are finally asked who they would vote for tomorrow. Political parties specific to devolved areas have been allocated to one of the other parties according to their orientation.

ANNEX 2
Detailed Regression Results^a

	Odds ratio	Robust standard errors	Z	<i>p</i> > <i>z</i>
Gender				
Male	ref.			
Female	1.318	0.145	2.50	0.012
Age				
15–20 years	ref.			
21–25 years	0.147	0.035	–8.13	0.000
26–35 years	0.244	0.054	–6.36	0.000
36+ years	0.387	0.072	–5.09	0.000
Ethnicity				
White	ref.			
Black	0.436	0.142	–2.54	0.011
Asian	1.138	0.269	0.55	0.585
Other	0.777	0.490	–0.40	0.690
Missing	0.368	0.216	–1.71	0.088
Birthplace^b				
London & South East	ref.			
Rest of England	1.069	0.185	0.38	0.700
Northern England	1.359	0.194	2.15	0.031
Wales	1.776	0.320	3.19	0.001
Scotland	1.397	0.230	2.03	0.042
Northern Ireland	1.267	0.559	0.54	0.591
Employer Type				
Private firm	ref.			
Central Government	2.883	0.673	4.54	0.000
Local Government	6.485	1.086	11.17	0.000
NHS/HE	3.946	0.807	6.72	0.000
Not for Profit	0.924	0.253	–0.29	0.773
Other	1.123	0.323	0.40	0.686
Don't Know/Missing	2.638	0.707	3.62	0.000
Workplace Size (people)				
1–2	ref.			
3–9	1.098	0.321	0.32	0.748
10–24	1.554	0.466	1.47	0.141
25–49	2.008	0.603	2.32	0.020
50–99	2.414	0.736	2.89	0.004
100–199	2.551	0.783	3.05	0.002
200–499	3.382	1.027	4.01	0.000
500–999	3.330	1.086	3.69	0.000
1,000 or more	4.528	1.431	4.78	0.000
Don't know, but less than 25	2.680	1.630	1.62	0.105
Don't know, but 25 or more	0.886	0.357	–0.30	0.763
Don't Know/Missing	0.524	0.851	–0.40	0.691
Occupation				
Corporate Managers and Administrators	ref.			
Managers and Proprietors	1.996	0.518	2.66	0.008
Science and Engineering Professionals	0.615	0.224	–1.33	0.182
Health Professionals	5.464	2.676	3.47	0.001
Teaching Professionals	4.739	1.426	5.17	0.000
Other Professionals	1.241	0.411	0.65	0.514

(Continued)

ANNEX 2
Continued

	<i>Odds ratio</i>	<i>Robust standard errors</i>	<i>Z</i>	<i>p > z</i>
Science and Engineering Associate Professionals	0.873	0.265	-0.45	0.654
Health Associate Professionals	5.079	1.573	5.25	0.000
Other Associate Professionals	1.135	0.267	0.54	0.589
Clerical Occupations	1.450	0.318	1.69	0.090
Secretarial Occupations	0.430	0.200	-1.81	0.070
Skilled Construction Trades	1.777	1.217	0.84	0.401
Skilled Engineering Trades	5.586	1.507	6.38	0.000
Other Skilled Trades	1.978	0.521	2.59	0.010
Protective Service Occupations	4.731	1.364	5.39	0.000
Personal Service Occupations	1.347	0.330	1.21	0.225
Buyers, Brokers and Sales Reps	0.811	0.278	-0.61	0.541
Other Sales Occupations	2.250	0.564	3.24	0.001
Industrial Plant and Machine Operators and Assemblers	3.200	0.804	4.63	0.000
Drivers and Mobile Machine Operators	2.949	0.901	3.54	0.000
Other Occupations in Agriculture	0.507	0.333	-1.04	0.300
Other Elementary Occupations	2.681	0.652	4.05	0.000
Don't Know/Missing	1.792	0.874	1.19	0.232
Social Mobility				
Upward	1.247	0.159	1.74	0.083
Same	ref.			
Downward	0.874	0.097	-1.22	0.224
Don't Know/Missing	0.617	0.206	-1.45	0.148
Industry				
Mining and Utilities	ref.			
Manufacturing	0.897	0.173	-0.56	0.573
Wholesale, Distribution	0.474	0.089	-3.98	0.000
Transport, Storage and Communications	1.424	0.330	1.52	0.127
Finance and Business	1.139	0.253	0.59	0.557
Other Services	0.829	0.168	-0.92	0.356
Don't Know/Missing	0.786	0.403	-0.47	0.639
Political affiliation				
Conservative	ref.			
Labour	1.500	0.201	3.03	0.002
Liberal Democrat	1.143	0.190	0.80	0.421
Other	0.886	0.207	-0.52	0.605
None	1.173	0.157	1.19	0.232
Inapplicable, Don't Know/Missing	1.330	0.177	2.15	0.032

(Continued)

ANNEX 2
Continued

	<i>Odds ratio</i>	<i>Robust standard errors</i>	<i>Z</i>	<i>p > z</i>
Parental Membership				
Non-Member Member(s)	1.427	0.148	3.43	0.001
Constant	0.128	0.061	-4.29	0.000
Wald Chi ²	1058.8			
Prob > Chi ²	0.00			
R-sqd	0.257			
Observations	18,982			

^aModels also include controls for year.

^bThese variables are replaced by a single 0/1 variable that distinguishes between areas of high and low union density within subsequent analyses of geographical variance in the strength of inter-generational transmission.

ANEX 3
Sensitivity Analyses

	Main sample				Variations to sample				Separate treatment of mothers and fathers				
	A1 Excl. Voting Controls	A2 Parental Birth Place	A3 West Midlands as HDA	A4 Random Effects	A5 Parent(s) Born Overseas	A6 + Non-Working Parent(s)	A7 Working Parent(s) Only	A8 Employee Parent(s) Only	A9 One Wave Per Person	A10 Working Fathers Only	A11 Working Mothers Only	A12 ^a Working Fathers + Controls	A13 ^b Working Mothers + Controls
Model 1													
Parent(s) Members	1.455*** (3.61)	1.437*** (3.52)	1.448*** (3.58)	1.879*** (4.44)	1.368*** (3.12)	1.418*** (3.42)	1.443*** (3.20)	1.470*** (3.03)	1.660*** (3.97)	1.596*** (4.00)	1.384*** (2.92)	1.624*** (3.08)	1.396*** (2.61)
Wald Chi ²	1030.9	1056.4	1073.4	1303.1	1087.9	1130.5	964.3	828.9	543.8	850.0	994.7	1505.5	1014.9
R ²	0.255	0.258	0.258	n.a.	0.255	0.252	0.263	0.265	0.267	0.269	0.264	0.294	0.252
Model 6													
Low Density Areas													
Both Members	1.482 (1.46)	1.457 (1.38)	1.350 (1.03)	1.916* (1.91)	1.323 (1.07)	1.465 (1.42)	1.463 (1.38)	1.452 (1.32)	1.742* (1.77)	1.383* (1.65)	1.241 (1.12)	1.449 (1.65)	1.207 (0.92)
One Member	1.110 (0.50)	1.037 (0.19)	0.979 (-0.11)	1.325 (1.21)	1.072 (0.40)	1.099 (0.54)	1.008 (0.04)	0.994 (-0.03)	1.182 (0.78)				
High Density Areas													
Both Members	2.278*** (1.48)	2.241*** (4.91)	2.281*** (5.06)	4.160*** (5.53)	2.116*** (4.53)	2.133*** (4.62)	2.310*** (4.54)	2.353*** (4.25)	3.335*** (5.77)	1.743*** (3.83)	1.467*** (2.84)	1.730*** (3.14)	1.506*** (2.77)
One Member	1.513*** (2.83)	1.538*** (3.04)	1.561*** (3.22)	1.767*** (2.81)	1.416*** (2.43)	1.460*** (2.71)	1.550*** (2.66)	1.642*** (2.67)	1.569*** (2.44)				
Wald Chi ²	1065.5	1084.9	1102.5	1307.8	1113.2	1153.3	987.0	836.7	564.8	859.0	998.5	1513.4	1021.5
R ²	0.257	0.259	0.259	n.a.	0.257	0.254	0.266	0.268	0.274	0.268	0.263	0.293	0.252
Obs		18,982			19,849	20,549	16,352	13,711	3,435	14,413	16,264	14,371	16,264

^aSee notes to Table 3.

^bControls include determinants of union status for both young people, their parents and whether they are in the same group. These are implemented with respect to industry, occupation, employer type and firm size. Controls for age of mother/father when child is first observed to be living with them are also included. In the analysis of working mothers that include controls for the attributes of both mothers and children, we utilize less detailed occupational controls due to problems of collinearity associated with occupational segregation. The explanatory power is therefore reduced.