LABOR UNIONS AND THE COMMUNITY: UNION MEMBERSHIP AND CHARITABLE GIVING IN THE UNITED STATES

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Abstract

Using panel data for the United States 2001 – 2011, the authors examine general differences in charitable giving between union members, free-riders, and the non-unionized. Results indicate that union members are more likely to give and to give more to charity relative to the non-unionized, whereas free-riders are the least generous. Similar effects are found when examining joining a union or becoming a free-rider: joining a union positively affects charitable giving, while moving into free-riding makes individuals' behavior less charitable. Evidence also suggests that the positive effect of union membership on giving does not diminish over time. Taken together, these results provide new solid evidence that union membership generates civic engagement in the form of charitable behavior, but also suggest the need to further investigate the civic behavior of free-riders.

Existing literature on the role of organized labor in civil society has long suggested that union members are more engaged citizens than those who do not belong to unions. While considerable evidence exists that the effect of union membership on political participation, such as voting and other actions meant to shape political agendas and outcomes, is positive and significant (Delaney, Masters and Schwochau 1988; Flavin and Radcliff 2011; Kerrissey and Schofer 2013; Radcliff and Davis 2000; Radcliff 2001; Rosenfeld 2010; Verba, Schlozman, and Brady 1995), theoretical and empirical controversy still surrounds the question whether – and, if so, how – labor union membership affects pro-social behavior such as volunteering and charitable giving. For instance, Zullo (2011) shows that union members are more likely to volunteer and to make charitable donations to community organizations. In contrast, Kerrissey and Schofer (2013) show that union members are more likely to donate to political causes, but that union membership does not affect donations to general charities. Moreover, while some studies emphasize unions' role in mobilizing individuals for political and civic engagement (Bryson et al. 2013; Freeman 2003, Juravich and Shergold 1988; Lamare 2010a, b), others wonder whether deep-seated predispositions as well as private experiences with civic and altruistic behavior trump the more collective experience that results from membership in a civic association (Portes 2000; Uslaner 2000). The controversy surrounding the civic participation of union members is recently amplified by the recognition that labor union activity has weakened considerably in the past decades (Brady, Baker, and Finnigan 2013; Western and Rosenfeld 2011) and that this decline might also affect unions' potential for civic engagement (Putnam 2000; Radcliff 2001; Sojourner 2013).

Furthermore, studies that investigated the link between union membership and more specific pro-social engagement, such as volunteering and charitable activities, have either been

conducted at an aggregate level or have relied on cross-sectional data. Aggregate level studies, however, cannot directly account for individual choice. Yet, to the extent that charitable giving is the result of individual choice, it is important to understand how being a union member affects individuals' decisions to give and how much to contribute. In turn, cross-sectional data cannot account for self-selection biases because they do not measure variation in charitable engagement due to individuals joining or leaving a labor union. Only if we account for such independent effects and their duration, can we conclude that labor unions play a role in enhancing civic engagement and that they are not just indicators of the presence of civic values.

To address previous limitations, this paper uses data from the Philanthropy Panel Study (PPS)[1] component of the Panel Study of Income Dynamics (PSID), a long-running panel survey of a representative sample of United States households (Wilhelm et al. 2001). PPS provides information regarding charitable giving over time, from 2001 to 2011, both incidence of giving and amount of charitable contribution by union members and non-members. We use the panel structure of the data to examine selection bias more effectively than in previous studies, i.e. whether union members have characteristics that correlate with giving as opposed to changes in propensity to get involved in charitable giving as a result of union membership. In addition, the data includes rich information which allows us to control for a large number of factors that could affect charitable activity. An unique advantage of the data is that it allows us to compare charitable giving by union members not only against charitable contributions of those who do not belong to a union, but also against free-riders – employees whose jobs are covered by a union contract but who choose not to formally join that union. This comparison allows us to investigate potential civic spillover effects from union members to those with whom they come in contact. If, for instance, members and free-riders give more than employees who do not work in a

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[1] The Philanthropy Panel Study (PPS) was formerly known as the Center on Philanthropy Panel Study (COPPS).

unionized workplace, this could constitute evidence that the presence of unions in an organization matters and that civic contagion happens from members to free-riders. If the opposite is true, that free-riders are the least charitable category, then the presence of unions indeed creates pockets of prosocial behavior but does not necessarily ensure overall higher civic behavior in an organization. Moreover, because the longitudinal nature of our data allows us to isolate within-person effects from between-category effects, we are able to make stronger statements regarding spill-over effects.

Labor Unions and Charitable Giving

Industrial relations scholars have generally predicted a positive association between union activity and civic engagement, including volunteering and giving. Two arguments support this prediction. First, a tradition that goes back to the work of the Fabian pioneers Sidney and Beatrice Webb (1897) describes labor unions as a necessary force to rebalance the unequal distribution of power within the workplace and society at large (see also Western and Rosenfeld 2011). While this characterization emphasizes unions' role as "instrumental organizations" (Gordon and Babchuk 1959) that seek to achieve gains for members primarily via political engagement, it also suggests that unions often work together with other community groups and organizations to advance a broader range of social issues (Frege, Heery, and Turner 2004; Niessen 2004). Indeed, a close look at the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) reveals ongoing partnerships with a wide range of community-based organizations, charities and grass-root groups. In one of the few studies to link labor union presence in a community with the incidence and level of charitable giving to one of the AFL-CIO partners, the United Way, Zullo (2011) finds that community union member density and the number of union organizations per square mile have a positive and significant

influence on aggregate community charitable giving. Similarly, Zullo (2013) finds that union density is positively correlated to volunteering related to neighborhood development activities. Overall, this evidence suggests that unions often act as a catalyst not only for political, but also for apolitical civic engagement (Zullo 2013) by exposing union members to civic causes in which they can further engage as individuals.

The second argument concerns the civic behavior of individual members as a result of their social experiences. Regardless of union partnership with community organizations, union members are more likely to volunteer and give because of the specific ways in which they socialize. The argument is an extension of Putnam's thesis that participation in civic organizations and associations instills a sense of shared responsibility for collective endeavors – "developing the I into We" (Putnam 1995) – and thus fosters more volunteering and philanthropy. To the extent that labor unions represent an important locus of civic connectedness at work (Putnam 2000: 80-81), and given recent evidence that in the U.S. the workplace represents an important source of volunteer referral (Brudney and Gazley 2006), union members are expected to display more charitable behavior. Indeed, a cross-sectional analysis of community involvement (volunteering, attending community meetings, helping with a neighborhood project and donating) confirms that union members are more engaged and donate more often than non-members (Zullo 2011).

Despite evidence of the positive association between union membership and charitable giving, some issues merit a closer scrutiny. First, the number of studies which test for this association is still limited, a scarcity explained by the fact that much of the recent research on unions' civic engagement has focused on political engagement, such as voting (e.g. Bryson et al. 2014; Freeman 2003; Lamare 2010a, b; Sojourner 2013). Second, recent evidence shows that

although union members are more likely to join community organizations, they are not necessarily giving more time or money to these organizations (Kerrissey and Schofer 2013). This suggests that the relationship between union membership and charitable giving is still not sufficiently understood. In particular, the type of data – case studies, aggregate effects or cross-sectional samples – does not allow for making a strong causality argument.

In an aggregate framework, it is not clear for instance whether the labor unions' contribution to charity is higher because union members are generally more likely to give or because those who give make a larger contribution, thus offsetting the lack of involvement by others. In other words two distinct questions need to be answered: first, are individual members more likely to give, and, second, are they also likely to give more than non-members? Another limitation of aggregate data is that it does not allow for saying whether the pattern observed for contributions to the United Way (Zullo 2011), i.e. higher contributions from areas with higher labor union density, is specific for partners of the AFL-CIO or whether it is present for charities in general. A more general result would render validity to the social capital thesis which proposes that membership positively affects prosocial behavior. In addition, accounting for charitable giving more generally takes care of an important self-selection issue: those who do not agree with labor unions' values in general (e.g. free-riders) may not like to contribute to a union endorsed cause, but they could be influenced by the giving experience of their unionized colleagues and engage with charity more generally. Understanding whether spillover effects extend to others with whom union members interact at work may shed light on the mechanisms through which unions create civic engagement. Finally, cross-sectional studies cannot rule out another self-selection aspect: people with more altruistic and civic inclinations may be more

likely to become union members. Longitudinal data like the data used in this study can mitigate this aspect by accounting for variation in charitable giving before and after joining a union.

Why Does Labor Union Experience Matter for Giving

Current research diverges as to why individuals engage in helping behavior, of which charitable giving is one instance (see Penner et al. 2005 for a review; Wiepking and Maas 2009; Wilson 2000). One common explanation is that the social contexts in which individuals are embedded affect the likelihood and degree of involvement in helping behavior. As such, individuals who are embedded in social networks due to their membership in civic institutions and associations are more likely to volunteer time and money (Hodgkinson and Weitzman 1996; Putnam 2000). Moreover, to the extent that these institutions promote values of morality, caring and compassion, the members become sensitive to causes congruent with such values. Embeddedness in social networks rich in civic values could enhance charitable behavior through a number of mechanisms.

First, decision to participate in charitable giving is contingent on individuals knowing about a range of charitable causes. Numerous studies have shown that people are more likely to volunteer and give if they are aware of others' needs or even asked directly to contribute (Bekkers and Wiepking 2011 for a review; Freeman 1997; Hodgekinson and Weitzman 1996). Awareness, however, is a function of one's social network. As participation in civic organizations and associations creates opportunities for individuals to meet other members, it increases the size of their network. An increase in size is often associated with an increase in network diversity. Taken together, network size and diversity increase the chance that an individual will become aware of a variety of charitable options in which other members participate. To the extent that, aside from professional organizations, labor unions offer the most

common loci of connecting at work, it is likely that union members will learn about charitable opportunities and needs from their colleagues.

Second, according to social influence theories, individuals are more likely to follow the actions of those with whom they identify, such as peers and role models (Bandura 1977; Salancik and Pfeffer 1978; Turner 1991). Social influence is stronger between co-members in an organization than between members and non-members because members tend to perceive those inside the organization as more similar to themselves than those who do not belong to the organization (McPherson, Smith-Lovin and Cook 2001; Tajfel 1982). Thus, one would expect union members to be more influenced by co-members than by non-members. Moreover, repeated interactions with other members increase one's sense of identification. For instance, members participate in a number of militant actions such as strikes or slowdowns, which require high intensity participation and high interaction among members, thus making the identity of union members more salient (Kelly and Kelly 1994; Klandermans 1986). Those with lower levels of involvement in the union are still likely to interact with other members during formal and informal meetings and discussions on a range of issues in which unions are involved. All those instances represent not only opportunities to interact with others, but also moments in which the member identity is shaped. Thus, when members are exposed to the charitable acts of their colleagues with whom they identify they are more likely to engage in charitable behavior. Moreover, labor unions collectively support community organizations and organize charitable drives for specific causes (Zullo 2011) and actively promote acting together and helping employees in need, thus, sensitizing the employees to collective social issues. Witnessing the charitable act of the associations with which they identify makes members more inclined to consider giving (Booth, Park, and Glomb 2009; Bommer, Miles, and Grover 2003). At the limit,

pressure to conform to peers' behavior, especially for cases in which contributions to charity drives are visible, could also affect members' decisions to get involved.

The third mechanism through which social networks affect charitable giving concerns their potential to foster trust and generalized reciprocity (Putnam 1995) that extends giving to those outside one's immediate social circle. Networks of formal relations among members of an organization are conduits of more informal future relations (Putnam 2000: 121; Wilson and Musick 1997). In turn, informal interactions create opportunities to give and receive help, thus not only creating trust among the members but also encouraging attention to others' needs and welfare (Putnam 2000: 117). To the extent that labor unions are important vehicles to redressing economic inequalities inside and outside the workplace, union members are likely to pay attention to the working and living conditions of those with whom they interact as well as of members of their wider community (Western and Rosenfeld 2011). As individuals understand that their own problems are similar to the problems of others outside their immediate social circle they feel more motivated to help others by volunteering or giving (Roßteutscher 2008).

Finally, unions play an important screening function by reducing the perceived risk of contributing to a fraudulent charity. A charity recommended either by the union or by a number of union colleagues is more likely to be perceived as trustworthy. Related, to the extent that a charity is supported by the union, it may become easier for members to contribute to that charity either through less formal collective activities such as paycheck deductions. Taken together, the mechanisms analyzed above suggest that, due to their different social experience at work, union members are more likely to give to charity and, by the same token, to give more than non-unionized workers. Next, we turn to the case of free-riders.

Free-riders and Giving Behavior

Free-riders are employees whose jobs are covered by a union contract but who choose not to formally join their union (Budd 2012). As of 2015, 25 U.S. states have outlawed union and agency shops by passing right-to-work laws that make union membership and paying dues voluntary and prohibit this from being a workplace mandate. Right-to-work laws give workers the choice to become dues paying union members, provided that a union is present at their workplace. At the same time, this 'open shop' model provides incentives for free-riding, as workers who are not union members enjoy the benefits of the collective bargaining agreement without joining the union and without paying for these benefits (Budd 2012; Haile, Bryson and White 2015).

In non-right-to-work states, unions attempt to negotiate union or agency shops into their collective bargaining agreements. Yet, legally all unionized workplaces can only be agency shops due to the U.S. Supreme Court ruling that union shop clauses can only be enforced as agency shops (NLRB v. General Motors, 373 U.S. 734 [1963]). This has opened the door to free-riding in non-right-to-work states as well. Specifically, employees in non-right-to-work unionized workplaces can choose not to be members and exercise their U.S. Supreme Court sanctioned *Beck* rights (1988) by only financially contributing to the union the proportion of union dues that covers representation associated to collective bargaining and contract administration. Title VII of the Civil Rights Act of 1964 also allows employees to opt out of union membership and to not pay dues directly to the union if employees can evidence that union association is in violation of their religious beliefs.

A special case is represented by those working in the public sector, and in particular U.S. Federal Government employees. The law in most right-to-work states covers both private and

public sector workers, with a handful of these states either having no specific mention to public sector employees in their statute or legally banning public employees from collective bargaining altogether (Sanes 2014). Indiana and Wisconsin are two right-to-work state exceptions. Indiana is the only state that has its private sector covered under right-to-work legislation while its public sector generally functions under non-right-to-work status (IC 22-6-6-1, Sec. 1.4; also see Sanes 2014). Wisconsin covers most public workers in its right-to-work statute with the exception of some public safety employees and municipal transit workers as covered in the 2011 Act 10 (Budget Repair Bill) and Act 32 (Biennial Budget Bill; see Onsager 2015). Regarding U.S. Federal Government employees, unions representing these public sector employees function under open shop rules, and, thus, union membership is not a condition of employment for federal employees. Hence, non-right-to-work U.S. states and the District of Columbia can have additional free-riders from federal public sector employees choosing not to become union members yet benefiting from union representation in their workplace.

The presence of free-riders working alongside union members creates a good experimental condition for understanding the extent to which labor unions affect not only the giving behavior of members but also the giving behavior of others with whom members interact at work. As far as we are aware, the existing literature on social capital has not explicitly considered this aspect, although some evidence of spillover effects from unions to the wider community have been recently proposed by Zullo (2013). By investigating how free-riders' charitable behavior compares to the behavior of their unionized colleagues, and by extension to that of non-union employees, we aim to shed more light on the mechanisms through which pro-social behaviors could spill over from members to other individuals with whom members interact and on the conditions that make the spillover more likely.

Two conditions can be identified to account for social influence across membership boundaries: first, the existence of opportunities for members of a focal group to influence non-members; and, second, the willingness of non-members to accept certain behaviors as desirable and in line with their identity. To the extent that members and free-riders do work alongside each other, it is clear that the opportunity for influence exists. Although not involved in activities and discussion networks related to union affairs, free-riders interact with union members in their capacity as co-workers in a unionized organization. Therefore, compared to employees in non-unionized work environments, free-riders are more likely to witness public displays of civic behavior such as collective donations and to get exposure to a wider range of charitable causes. Thus, one would expect free-riders to not necessarily be as charitable as union members, but at least more likely to contribute to charitable causes than the non-unionized.

Conversely, one could predict just the opposite when reasoning about the second condition, i.e. the willingness of free-riders to accept and emulate the pro-social behavior of union members. As already discussed, individuals' decisions to contribute to charities is influenced by the behavior of those with whom they identify. To the extent that free-riders do not identify with their unionized colleagues, they will be less inclined to follow the latter's behavior (Haile, Bryson and White 2015) and therefore contribute less to charities. At the limit, lack of identification can turn into outright dis-identification (Brewer and Kramer 1985; Elsbach and Bhattacharya 2001). This is even more likely to happen, for instance, when unions organize charitable collections at work, because it makes union members' behavior more salient to free-riders. As labor unions aim to better integrate with the community, partnerships between unions and community organizations have become more intense, and raising money for charities at work has become more common. As a result, dis-identification could make free-riders not only less

likely to contribute compared to their unionized colleagues, but the least likely group to give, even compared to those who are in non-unionized environments. We investigate both conjectures by comparing the incidence and level of giving of members and free-riders in unionized workplaces with the charitable behavior of non-unionized workers.

Individual Differences and Charitable Giving

For both union members and free-riders, one cannot rule out the possibility that their giving behavior is not only different from that of non-union members and from each other's because they are exposed to different social influences, but also because they are different kinds of people. For instance, it is possible that free-riders and union members possess relatively stable individual characteristics that correlate in distinct ways with both the propensity to join voluntary associations and the likelihood of charitable giving. Indeed, evidence exists that individual differences, such as empathy and agreeableness, affect both individuals' preferences for association and their pro-social behaviors such as volunteering and giving (Bekkers 2005, 2006; Carlo, Okun, Knight and de Guzman 2005; Graziano, Habashi, Sheese and Tobin 2007; Stocks, Lishner and Decker 2009; Volk, Thöni, and Ruigrok 2011). In a union context, the literature provides evidence that current union members are more agreeable than former union members (Dinesen, Norgaard and Klemmenses 2013). Interestingly, these relationships likely provide some insight to Condie, Warner and Gillman's (1976) finding that individuals who possess more of a free-rider disposition are less likely to donate to the collective good (e.g., blood donation). Overall, these studies suggest that certain individual differences might indeed be correlated with a more or less "prosocial personality that is consistently related to a broad range of prosocial behaviors" (Penner et al. 2005: 375).

We investigate the possible contribution of individual characteristics by using both between-category effects and within-person effects in our analyses. While between effects describe differences in charitable behavior ignoring the effect of time-invariant individual characteristics potentially correlated with membership status and with charitable giving (e.g. empathy, agreeableness), within-person effects account for the effect of such characteristics. Moreover, by comparing between- and within- effects we can draw stronger conclusions regarding potential spillover effects.

Data

To investigate the relationship between union membership and giving we use data from the Philanthropy Panel Study (PPS), the philanthropy module within the Panel Study of Income Dynamics (PSID). The PSID is a socio-economic panel study of American households, running since 1968. It was annual until 1997, when it became biennial. Response rates are high (typically 96-98 per cent in the years we examine) and attrition rates are low, due to efforts to make contact with "lost" families and their members. We use data for 2001-2011 when the PPS module was introduced (Wilhelm et al. 2001) which gives us six waves of longitudinal information on charitable giving. In each wave, the survey respondents were asked questions regarding their family's donations for a variety of charitable purposes (e.g. youth and family services, neighborhoods and communities, helping the needy, educational, health, combined purpose). No other data source provides such a rich set of longitudinal information on charitable giving coupled with detailed socio-economic characteristics (discussed below). Moreover, the PPS data has been shown to provide an accurate and robust picture of giving with minimal missing data and good representativeness relative to comparable data sources (Wilhelm 2007). Finally,

respondents answered questions regarding whether their job contract was negotiated by a union and whether they were members of that union.

Our sample starts with all employed heads of households in the PPS data, from 2001-2011. This strategy allows us to track an individual over time even when s/he changes the household (for use of individual level data from PPS see also Wilhelm et al. 2008). For instance, heads can change households as they separate from previous partners and move alone into a new household or move in with a new spouse. Our analyses control for changes in the household conditions of the head such as family income or number of children in the household, which could influence giving behavior. Ideally, we would like to have information on the donations initiated only by the household head instead of whole household donations. For single-adult households (about 36 percent of our sample), the declared donation represents the single-adult respondent behavior. For couples, the assumption that household donation is indicative of the head's charitable behavior needs further evidence. Fortunately, in two waves (2003 and 2005 respectively) PPS includes questions regarding "who decides." Respondents indicate whether they decide alone or whether others contribute to the decision. We analyzed the pattern on responses and found that, in each of the two years, the percent of household heads who declare that they are involved in the decision regarding charitable giving is approximately 82 percent. This is consistent with findings from a related literature that spouses influence each other's pro-social behavior (Rotolo and Wilson 2006). Moreover, for individuals who do not change households from 2003 to 2005, the decision making pattern barely changes (91 percent of heads of household in our sample have the same decision pattern in 2003 and 2005). Our analyses are therefore conducted under the assumption that household heads who are not living in single-adult households do participate in the decision to donate. In additional analyses, we removed the

individuals who in 2003 and 2005 did not answer the "who decides" question or who responded that someone else in their household was the primary decision maker on charitable donations, and the obtained results were consistent with the ones reported here.

We start with a sample of 6,194 employed heads residing alone or in a couple who responded to the PPS and also responded to the 1999 wave of the PSID (we include 1999 since we lag our control variables and want to have the same two-year time interval as in the PPS survey). We remove any observations with missing data, leaving 6,079 heads with 18,074 yearly observations. We then further remove those heads who do not appear in at least two consecutive waves. This leaves us with a final sample of 5,217 heads and 14,889 year-observations (unweighted). Table 1 shows the number of spells per respondent.

-- Insert Table 1 Here --

Dependent variables: To account for the incidence of giving we use the indicator variable that corresponds to the screening question which asked respondents whether they gave more than $25 of donations in the previous year. To account for amount donated, we use the logarithm of total given to charity as our main dependent variable, constructed from aggregating giving across all types of charitable contribution types. As we use self-reported giving data, we are aware that both the incidence of giving and the amount given might be subject to bias, either due to social desirability or due to modesty (Bekkers and Wiekping 2011). At the same time, existing studies do not find that members of civic associations and unions are more affected by either of these biases (Abraham, Helms and Presser 2009; Delaney, Masters and Schwochau 1988). Thus, our analyses are conducted under the assumption that self-reported charitable behavior does not systematically vary across union membership categories.

Independent variables: To account for union membership and free-riding, we classify person-observations into three groups: (1) non-union employee (the reference category), (2) union member, and (3) free-rider (i.e. working in a job covered by a union contract but not a member of the union). To define the free-riders we use two questions from the PSID. The questions ask first, whether the respondent's job is covered by a union contract and second, whether the respondent belongs to that union. Because the coverage question refers to the respondent's job, as opposed to a respondent's workplace, it filters out employees who work in a unionized organization but who, for various reasons, are excluded from the bargaining unit (Budd 2012).

Control variables: To account for other factors documented to affect different forms of civic behavior, including charitable giving, we use the following five sets of controls: (1) *Demographic controls:* gender, age, race, a poor health indicator, whether urban resident, whether reside in right-to-work state, and education; (2) *Job and workplace controls:* We control for tenure in the current job, whether working part-time and whether in a non-managerial/professional occupation. We also control for whether the respondent moved to a new employer because changing union status could coincide with moving to a new job. We also include a dummy variable indicating whether the individual works in the public sector; (3) *Household controls:* We control for family status (whether a cohabiting spouse is present, married or not), for number of children, and for the family income; (4) *Social capital indicators:* We control for an array of factors that are likely to influence social capital and giving and may also vary among unionized, free-riders, and non-unionized workers. We control for personal experience with altruistic behavior, such as whether the respondent received informal financial support from others (dummy variable) and whether the respondent gave informal support (dummy variable). Additionally, we account for religious affiliation which has shown to be a

very strong predictor of secular as well as religious giving (Wilhelm et al. 2008). Appendix 1 provides a detailed definition of all variables.

Ideally we would have also controlled for previous union membership and previous free-riding to account for potential longer term effects of either of these experiences on charitable giving. Recent research has shown that previous union experiences do affect individuals' propensity to become union members (Booth, Budd and Munday 2010; Bryson and Gomez 2005) as well as their level of civic engagement, especially their voting behavior (Bryson et al. 2014). Unfortunately, unlike Booth et al. (2010) who could reconstruct the entire employment history of their respondents and Bryson et al. (2014) who could rely on a self-reported measure of previous union membership, our data does not allow us to track individuals' full past engagement with unions or their free-riding. We discuss the impact of this data limitation in the concluding section.

Analytic Strategy

To explore the relationship between union membership and charitable behavior we first examine differences in likelihood of giving and amount given by members and free-riders, compared to non-union employees. Since we are interested in both between-person and within-person effects, we separate out between- and within-person effects using a within-between random effects specification. This estimation technique, a reformulation of that proposed by Mundlack (1978), has received increasing attention among social scientists working with panel data as the most appropriate way of estimating both within- and between-observation unit effects in the same equation (Bartels 2008; Bell and Jones 2012). Compared to more prevalent modeling techniques based on pooled data (which combine the within- and between- conditions effects into a single coefficient) or fixed effects (which perform poorly in situations in which changes in

condition is slow or infrequent, as is the case with union membership), the technique employed here is more suited to our purposes, because it allows us to estimate the general giving gap between union members, free-riders, and the non-unionized (between-person effect) as well as the effect of joining a union or becoming a free-rider (within-person effect). In addition, it allows us to reliably implement tobit models when it comes to the estimation of amounts given, a left-censored variable.

The basic equation is given by:

$$y_{ij} = \beta_{0j} + \beta_1 x_{ij} + e_{ij} \tag{1}$$

where:

$$\beta_{0j} = \beta_0 + \beta_2 z_j + u_j \tag{2}$$

which combines to give:

$$y_{ij} = \beta_0 + \beta_1 x_{ij} + \beta_2 z_j + e_{ij} + u_j \tag{3}$$

In our case, y_{ij} is a giving measure. Subscripts i denote level-1 units, which are measurement occasions (waves), whilst subscripts j denote the level-2 units (individuals). β_0 are the random intercepts, β_1 are the level-1 coefficients which are time-varying, and $\beta_2 z_j$ are the level-2 coefficients which are time-invariant. The random parts are e_{ij} (level-1) and u_j (level-2). In this conventional formulation, the level-1 are conflated into a single coefficient, β_1, which is a weighted effect of both.[2]

By transforming our independent variables, the model can be reformulated to separate out the within- from the between-person effects into separate coefficients. The between-person effect, are the person-specific means of each of the union status variables across all waves. The

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[2] In the fixed effect approach the between-effects are absorbed into the person dummies, leaving only within-respondent effects.

within-person effect of changing union status on giving (e.g. becoming a union member) is captured by the deviation in a specific wave from the person-specific usual union membership, free-rider, or non-union status, i.e. an individual's union membership, free-rider, or non-union status in any given wave centered on their person-specific average for each of these variable, $x_{ij} - \bar{x}_j$, which is time-variant. Because the within-person effects are mean-centered, they are uncorrelated with the between-person random effects, removing the commonly-held limitation of the random effects approach. We fit logit models for our binary dependent variables and tobit models for the giving amounts in the form of:

$$y_{ij} = \beta_0 + \beta_1(x_{ij} - \bar{x}_j) + \beta_2\bar{x}_j + (u_j + e_{ij}) \tag{4}$$

We perform this transformation on all of our time-varying covariates.

Results

Table 2 shows the distribution of union members, free-riders, and non-union employees along a number of socio-demographic dimensions. In line with previous studies, compared to non-union employees, union members in our sample are likely to be slightly older, male, and of African-American race. In terms of workplace and job controls, union members are slightly more likely to come from non-managerial and professional occupations, less likely to be part-timers and have longer job tenure. Regarding the free-riders compared to both union and non-union employees, they are more likely to work in public sector. Also, free-riders are more likely than union members to work in right-to-work states.

-- Insert Table 2 Here --

-- Insert Table 3 Here --

Table 3 includes correlation coefficients between the variables included in our analyses. Table 4 presents the analyses for the likelihood of giving with the within- and between-effects

specifications. All coefficients reported have been converted to average partial effects to facilitate interpretation. This means that the coefficients for whether donate to charity are interpreted as the effect of a unit change in the independent variable on the probability of donating while those for amount donated are interpreted as the percentage change in charitable giving. The first two columns (Base model) present the average partial effects for probability of giving. We first focus on the between-effects, i.e. the general differences in giving between groups. The between-effects (column 2) are generally in line with existing evidence that education has a significant positive impact on giving, along with religiosity, family status and family income. In column 4, the effect of union membership on giving is positive and significant, while the effect of free-riding is negative and significant. These results are in line with the hypothesis that union members are more likely to donate to charitable causes, while free-riders represent the least charitable category of employees. Specifically, compared to non-members, union members are about 3 percent more likely to give, while free-riders are about 12 percent less likely.

We also examine the within-effects, i.e. the effect of switching from union membership status category to another, controlling for time-invariant fixed effects (Table 4 column 3). Once we control for changes in job attributes and other observable characteristics, we find that joining a union is accompanied by a boost in charitable giving, while becoming a free-rider is accompanied by a drop in giving. The magnitude of the effect is smaller for within-person effects than for the between-person effect, but still significant. Joining a union makes an individual almost 3 percent more likely to give to a charity, while a move to free-riding makes an individual almost 4 percent less likely to give. Thus it appears that joining a union does increase the probability of giving to charity, while selecting into free-riding makes one less likely to give.

-- Insert Table 4 Here --

We further divide the sample into right-to-work state (Table 4 columns 5 and 6) and non-right-to-work state (Table 4 columns 7 and 8). As outlined already, the reasoning here is that there might be differences in the way free-riders behave in right-to work and non-right-to-work states (Budd 2012). Consistent with our previous results, between-effects in both right-to-work and non-right-to-work show that union members are significantly more giving in both classifications. The disaggregated results for free-riders are also consistent with the aggregate finding; that is, free-riders are less likely to give in both state types. Concerning within-effects, which show the impact of a change in status on giving, becoming a union member increases the propensity to give in both right-to-work and non-right-to-work states, while becoming a free-rider has a significant and negative effect on charitable giving in both states. Becoming a union member makes one almost 2 percent more likely to give to charity in a right-to-work state and about 3 percent more likely to give in a non-right-to-work state. In turn, becoming a free-rider makes one about 8 percent less likely to give to charity in right-to-work states and about 1.5 percent less likely in non-right-to-work states. The difference is however not statistically significant (Wald tests for whether gave union member prob> χ^2 = 0.457; free-rider prob> χ^2 = 0.264).

With respect to amount given both between- and within- effects are significant for members and free-riders (Table 5, columns 3 and 4). Union members generally give more, and also becoming a member (within-effects) makes one more generous. Instead, free-riders not only give less than other employees, but also one's transition into free-riding reduces their generosity. Because the coefficients represent percentage change in charitable giving, we translate the main results in dollars. However, because the survey only registers the amount given for those who

gave more than \$25 the between effects might be over-estimated, while the within-individual effects might be under-estimated. Thus, for within-person effects, becoming a union member increases the average amount donated to charity by about \$28, while becoming a free-rider decreases the average amount donated by \$65. For the between-category effects, the general cross-sectional difference between being a union member and non-union is \$98, while the effect of being a free-rider is about \$222 less giving annually – controlling for other factors. We conducted the same analysis on split samples in right-to-work (Table 5 columns 5 and 6) and non-right-to-work states (Table 5 columns 7 and 8). The effects are statistically significant in both settings and for both members and free-riders and comparable with the results in the full model. Although the coefficients appear different, differences between the two kinds of state are statistically indistinguishable (Wald tests for amount given union member prob$> \chi^2 = 0.416$; free-rider prob$> \chi^2 = 0.077$). Taken together, the results of the analyses for the likelihood of giving and amount given show the same pattern: compared to non-unionized employees, trade union members are more likely to give and also to give more, while free-riders are the category least likely to contribute to charities.

-- Insert Table 5 Here --

Additional Analyses

We believe that further investigating the effects of giving over time could shed more light on the link between the social capital created by unions and giving behavior. In particular we are interested in two aspects. First, we are interested in whether the effects that we unveiled represent a one-time change or if they last. If it is indeed the case that unions do have a positive impact on the giving behaviors we would expect that effect to last beyond the first year in which a non-member joins a union. Alternatively, if leaving a union has a negative impact on giving,

we expect that free-riders will continue to be less charitable beyond the first year in which they transition into free-riding. Second, we aim to understand whether the way in which the shift into union membership and free-riding happened, i.e. either by taking a new membership status in the same organization or by taking a new job in a new organization, affects giving. Below we present a series of models that aim to address the two aspects.

Persistence of membership and free-riding effects

To investigate this line of reasoning, we extend our examination of within-person effects in a series of models presented in Figure 1. Here, we examine leads and lags in giving before and after the transition to a new membership state to see if the union and free-riding within-effects established in Tables 4 and 5 dissipate or remain even if a worker switches out of union membership or becomes a free-rider.[3] We examine transitions from three base states: (1) non-union into free-riding or union-member (Panel A); (2) union member to free-rider or non-union (Panel B); and (3) free-rider to union or non-union (Panel C). For each transition, we create a series of dummies which indicate when the transition was made (T=0), one wave after the transition (T=1), and the second wave after the transition (T=2). The dummies are created such that if a worker became a union member in one wave, but then left in the next wave, his/her T=0 is coded 1, but his/her T=1 is coded 0. If a worker joined a union at T=0, and remained a member for T=1, then s/he is coded 1 for both. If a worker remained a union member for another wave or more after this, then T=2 is coded 1. Leads were calculated in a similar way but with lead dummies in a separate equation. We use the same set of controls as in previous models.

-- Insert Table 6 Here --

-- Insert Figure 1 Here --

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[3] These analyses are conducted on smaller samples as we retain only individuals with more than three consecutive years in the panel. As a result the magnitude of the effects in the panels is different than the effects in the tables, yet in the same direction. Table 6 describes transition states.

Figure 1, Panel A shows that before the transition those who did not work in a unionized firm and were to become free-riders and union members respectively were almost indistinguishable in terms of likelihood of donating to charity. As they change status, the latter becomes slightly more likely to give; this is consistent with what we found in the previous analysis. We find no evidence that this effect disappears at T=2. For non-unionized workers who become free-riders, we find a negative effect in giving, which grows over time. Panel A also shows similar effects for the amount of giving. These results indicate that both the positive effect of becoming a member and the negative effect of becoming a free-rider last beyond the initial transition.

Panel B shows the giving trajectory of former union members. We find no significant overall change in propensity to give for those who switch to non-unionized status; yet, for those who become free-riders, their propensity to give generally declines and the negative effect even grows slightly in magnitude over time. Similarly, once individuals separate themselves from union membership status and its potential source of social capital, the amount of giving appears to regress over time for both types of switchers. This result suggests that without the constant hypothesized social capital supports, the union effect on giving diminishes.

Panel C shows the giving trajectory of free-riders who switch to union membership or non-unionized employment. We find that the likelihood of giving increases for free-riders who join a union. Moreover, the effect remains through T=2. Concerning the amount given, former free-riders who become new union members give more compared to what they gave previously; this effect also stays in place through T=2. These trends suggest that when free-riders are freed of the negative social capital effect their giving is likely to increase.

The impact of membership change and job change

A second conjecture worth investigating is whether there are differences in giving behavior between those who become free-riders as a result of switching to a new job and those who leave the union while remaining in the same organization. This is important because differences between the two types of free-riders can shed light on mechanisms through which unions affect civic behavior. We repeat the analyses reported in Tables 4 and 5 including an interaction term between free-riders and new jobs (full analyses not reported here). While all the results previously reported remain in place, we also found that becoming a free-rider while remaining in the same organization makes an individual significantly less likely to give. Instead, becoming a free-rider upon changing organizations, that is becoming a free-rider by not joining the union upon entering a unionized workplace, attenuates the negative effect of free-riding on giving. Similarly, becoming a union member upon joining a new unionized workplace has a positive impact on giving. Moreover, new union members who do not change jobs appear to become more charitable. The results for amount given display a similar pattern.

These results suggest that the presence of a union at the workplace has an initial positive impact on new-comers. However, for individuals who become free-riders, this initial advantage disappears. Regarding the mechanisms discussed in the theory section, the results suggest that unions do sensitize employees to charitable causes. However, once an individual opts out of the union, the individual seems to not only reject union causes, but also charitable causes.

Conclusion

This study examines how labor union membership and free-riding affect charitable giving. Using panel data, we first looked at the incidence and amount given to charity by members and free-riders, compared to non-members. Second, we examine the persistence of

charitable behavior for members and free-riders, as well as the possible spillover effects that unions might generate within an organization.

The results of our analyses show that: (1) union members are more likely to make charitable donations and that they give more than other employees; (2) free-riding status has generally a negative effect on one's charitable behavior; (3) joining a union positively affects charitable behavior, while moving into a free-riding position makes one less likely to contribute. Moreover, our study shows evidence that (4) the positive effects of union membership appear to last for at least a couple of years, providing that the individual does not move into a free-riding position. Finally, some of our supplementary analyses suggest a positive relationship between joining a unionized work place and giving, but also that those who separate from the union (free-riders) disengage from charitable behavior as well. This last finding is important because it sheds some light on the mechanisms through which labor unions affect the civic behavior of members, as well as, the civic behavior of those with whom members interact at work.

While previous research has predicated a positive relationship between labor union membership and charitable behavior, existing evidence is still limited and comes primarily from case studies, aggregate level and cross-sectional data (e.g. Zullo 2011). Moreover, recent research suggests that union membership is likely to affect political participation but not necessarily charitable engagement (Kerrissey and Schofer 2013). Using a rich panel dataset, we were able to address causality more efficiently and, thus, to provide new solid evidence that union membership generates civic engagement in the form of charitable behavior. Indeed, because within-person effects for union membership are positive and significant, one can conclude that union status has a positive impact on giving, net of time invariant individual characteristics. At the same time, the positive significant between membership category effects

suggest that individual characteristics might also be important for explaining the charitable giving of members, especially with respect to the amount given.

In addition to showing that union membership increases charitable giving, our study also sheds some light on the behavior of free-riders. While existing research on the role of labor unions in civil society has focused on the civic and political engagement of union members, the civic behavior of free-riders has generally been ignored. Our analyses suggests that free-riders' behavior is different than that of members and non-members, thus highlighting the fact that a workplace union could affect members and free-riders in distinct ways. Indeed, further research should explore more carefully both the civic and political participation of free-riders in order to understand the impact of workplace unions on employees' wider citizenship engagement.

Why are free-riders different from union members? And why are they less likely to engage in charitable giving? One explanation may be those who refuse to join a union are viewed extremely negatively by unionized colleagues who therefore are likely to shy away from interacting with the free-riders. This would reduce free-riders' access to information regarding charitable causes and, thus, have a negative effect on their charitable giving. In addition, as free-riders become more isolated, they are more likely to encounter dis-identification (Brewer and Kramer 1985; Elsbach and Bhattacharya 2001). This will make them less likely to engage in activities promoted by union members and less likely to emulate the latter's behavior, thus affecting their charitable giving in a negative way. A second explanation is that free-riders are a different type of people and that their strong opposition to unions is indicative of some specific underlying characteristics that are also negatively correlated with the propensity to engage in charitable giving.

The type of analysis conducted in this study and the additional analyses suggest that the social element plays an important role, yet exactly as in the case of union members, they also suggest that individual characteristics are also important for understanding the charitable behavior of free-riders, especially with respect to the amount given for charity. Regarding the social aspect, the within-person negative and significant effect for free-riding suggests that the social influence available to union members does not affect free-riders who work alongside union members and that, in fact, being aware of union members' charitable activities might reduce free-riders propensity to give (conform to the "dis-identification" argument). Figure 1 Panel C concurs to this conjecture. Specifically, Figure 1 Panel C shows that free-riders who change their status to union members are more likely to give and to give more. Moreover, the models with interaction effects between membership status and new jobs also show that free-riders who join a unionized workplace are more giving than free-riders who are already in the organization and opt-out of their union. This result suggests that joining a unionized place might have an initial positive impact on new employees, possibly because it creates awareness to the possibility of engaging in charitable giving. It also shows that when members opt out of unions and become free-riders they also reject the charitable engagement associated with unions. While our within-person estimates establish that the social influence aspect matters above and beyond individual characteristics, our analyses cannot rule out that personality characteristics might also play an important role in free-riders' lower propensity to engage in charitable giving. Indeed, the statistically significant and relatively large between-effects suggest that explanatory power remains and could be explained by specific individual characteristics.

Further investigation is required to understand how giving behaviors can simultaneously be different for union members and free-riders. We acknowledge that only a small percent of our

sample is represented by free-riders. Given this small proportion, conducting additional analyses that would further split our sample into smaller subgroups was not feasible. We note that the supplemental analyses we were able to conduct provided consistent findings, yet this empirical effort has suggested that a more qualitative investigation is required in order to understand the mechanisms that discourage free-riders' engagement with charitable giving. If it turns out that free-riders are a different type of people, who oppose unionism and the values that it promotes, there is perhaps little that unions or union member colleagues can do to influence these individuals. If, on the other hand, their behavior is primarily the outcome of social isolation, then some influencing is possible.

A final limitation of our study, already mentioned in the data section, relates to the lack of information about previous membership status. Specifically, this means that our current reference 'non-union' category includes a combination of never-members (i.e., current non-union employees who have never worked in a union environment) and ex-members (i.e., current non-union employees who were union members in the past). Similarly, our current free-rider category could also include never-members (i.e., free-riders who have never become union members) and ex-members. To the extent that ex-members and never-members display similar current behaviors, this limitation should not raise concerns. However, some recent evidence suggests that current behaviors, such as voting, are affected not only by current membership status but also by previous union experiences. For instance, Bryson et al. (2014) show that employees who are ex-union members are slightly more likely to vote than never-members and are also more likely to participate in demonstrations or sign petitions. Bryson et al. (2014) suggest that participation in union activities currently or in the past teaches individuals to voice

their concerns which, in turn, results in long term reduction in the cost of their civic engagement as well as in an increase in the efficacy of civic behavior (union "voice effect").

Could we expect ex-membership to affect charitable behavior to the same extent that it affects voting? On one hand, it is not immediately obvious that the union voice effect would have a significant impact on the charitable giving of ex-members. Moreover, most of the mechanisms that we suggest as enhancing charitable behavior (current social networks that facilitate information sharing, create social influence and membership identification) are meant to have primarily contemporaneous effects. On the other hand, we do posit that unions, similar to other voluntary organizations, do sensitize individuals to social issues in the wider community. Although it is possible that this effect lasts longer than the membership, our supplementary analysis does not fully support this assumption, as those who leave the union appear to display less charitable behavior (Figure 1 Panel B). Further research is needed to disentangle the combined effects of current and previous union status on charitable giving. Lastly, we note that further research could apply a framework similar to the one developed here to examine how labor union membership and free-riding affect other civic behaviors, such as volunteering, thus gathering more evidence on how labor unions create publicly valuable outcomes within and beyond the workplace (Budd 2014).

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Table 1. **Number of consecutive spells per respondent**

Consecutive spells	Observation count
2	1,775
3	2,473
4	2,354
5	2,093
6	1,971
7	4,223
Total N	14,889

Note: Data are not weighted.

Table 2. **Summary statistics**

	Overall	Non-union	Free-rider	Union member	Min	Max
Categorical Variables						
Non-union	0.82				0	1
Free-rider	0.02				0	1
Union member	0.16				0	1
Whether donate to charity	0.69	0.68	0.64	0.75	0	1
Female	0.25	0.25	0.29	0.22	0	1
African-American	0.12	0.11	0.24	0.17	0	1
Hispanic	0.06	0.06	0.06	0.06	0	1
Urban	0.67	0.66	0.70	0.72	0	1
Part-time	0.13	0.13	0.14	0.10	0	1
Non-man./prof. occupation	0.63	0.61	0.61	0.67	0	1
New job	0.20	0.22	0.23	0.08	0	1
Public sector	0.21	0.15	0.60	0.46	0	1
Right-to-work state	0.37	0.41	0.35	0.18	0	1
Poor health	0.09	0.091	0.07	0.09	0	1
Gave informal support	0.10	0.10	0.09	0.12	0	1
Received informal support	0.10	0.10	0.11	0.07	0	1
Religious	0.86	0.86	0.90	0.88	0	1
Cohabiting spouse	0.60	0.60	0.51	0.63	0	1

	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Min	Max
Continuous Variables										
(log)Amount donated to charity	4.65	3.35	4.57	3.34	3.76	3.23	5.16	3.36	0	11.24
Age	44.31	12.38	44.06	12.65	43.75	12.84	45.66	10.73	17	85
Years of education	13.62	2.45	13.67	2.49	13.44	2.60	13.40	2.21	0	17
Tenure	8.95	9.02	7.96	8.33	10.27	10.36	13.89	10.47	0	50
Number of children	0.73	1.08	0.73	1.09	0.62	0.96	0.75	1.08	0	11
(log) Family income	10.92	0.79	10.89	0.82	10.85	0.71	11.07	0.60	0	14.43

Note: Data are weighted.

Table 3. **Correlation matrix**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Non-union	1													
2. Free-rider	-0.328	1												
3. Union member	-0.920	-0.07	1											
4. Whether donate to charity	-0.045	-0.025	0.058	1										
5. (log) Amount donated	-0.061	-0.050	0.086	0.913	1									
6. Female	0.018	0.039	-0.035	-0.109	-0.141	1								
7. Age	-0.084	-0.010	0.093	0.226	0.271	0.009	1							
8. African-American	-0.089	0.071	0.064	-0.149	-0.154	0.296	-0.048	1						
9. Hispanic	0.010	-0.004	-0.009	-0.079	-0.094	-0.035	-0.040	-0.088	1					
10. Poor health	-0.001	-0.003	0.002	-0.094	-0.113	0.096	0.124	0.102	0.060	1				
11. Urban	-0.060	0.013	0.058	0.037	0.047	0.089	0.011	0.171	0.076	-0.007	1			
12. Education (years)	0.034	-0.016	-0.029	0.282	0.345	-0.035	0.050	-0.152	-0.220	-0.200	0.106	1		
13. Part-time	0.017	0.014	-0.024	-0.105	-0.118	0.222	0.035	0.078	-0.011	0.135	0.006	-0.057	1	
14. Tenure	-0.238	0.017	0.244	0.202	0.247	-0.080	0.491	-0.013	-0.051	0.032	0.004	0.038	-0.164	1
15. Non-manag./prof. occ.	-0.014	0.003	0.109	-0.251	-0.313	0.006	-0.080	0.183	0.093	0.117	-0.103	-0.546	0.086	-0.044
16. New job	0.014	0.015	-0.150	-0.193	-0.214	0.042	-0.234	0.061	0.045	0.034	-0.032	-0.154	0.264	-0.517
17. Public sector	-0.277	0.121	0.242	0.076	0.091	0.066	0.075	0.088	-0.055	-0.035	0.008	0.173	-0.030	0.183
18. Right-to-work state	0.157	0.015	-0.172	-0.029	-0.013	0.059	-0.041	0.218	-0.054	0.007	-0.176	-0.051	-0.027	-0.065
19. Gave informal support	-0.016	-0.010	0.021	0.115	0.148	-0.006	0.107	0.018	0.086	0.040	0.059	0.063	-0.030	0.065
20. Received informal support	0.052	0.011	-0.059	-0.110	-0.138	0.203	-0.298	0.098	-0.037	0.053	0.029	-0.001	0.204	-0.250
21. Religious	-0.014	0.009	0.010	0.114	0.139	0.039	0.150	0.075	0.045	-0.006	0.022	0.007	-0.021	0.094
22. Cohabiting	-0.017	-0.035	0.032	0.193	0.245	-0.749	0.075	-0.299	0.053	-0.101	-0.086	0.036	-0.241	0.143
23. Number of children	0.018	0.002	-0.019	-0.050	-0.044	-0.018	-0.255	0.096	0.103	-0.028	0.015	-0.133	-0.044	-0.127
24. (log) Family income	-0.076	-0.035	0.095	0.382	0.477	-0.419	0.243	-0.322	-0.061	-0.183	0.110	0.409	-0.369	0.298

Table 3. **Correlation matrix,** *continued.*

	15	16	17	18	19	20	21	22	23
15. Non-manag./prof. occ.	1								
16. New job	0.130	1							
17. Public sector	-0.139	-0.181	1						
18. Right-to-work state	0.069	0.071	0.012	1					
19. Gave informal support	-0.104	-0.050	0.026	-0.029	1				
20. Received informal support	0.021	0.192	-0.027	0.009	-0.022	1			
21. Religious	-0.025	-0.060	0.025	0.085	0.019	-0.063	1		
22. Cohabiting	-0.048	-0.090	-0.050	-0.049	0.018	-0.231	0.013	1	
23. Number of children	0.074	0.071	-0.032	0.017	-0.073	0.046	0.019	0.194	1
24. (log) Family income	-0.376	-0.294	0.068	-0.153	0.149	-0.289	0.062	0.544	-0.011

Notes: Data are weighted

Table 4. **Relationship between union status and whether donated to charity**

	Base Model		Full Model		Right-to-work states		Non-right-to-work states	
	Within	Between	Within	Between	Within	Between	Within	Between
Union member			0.027***	0.031***	0.019*	0.091***	0.032***	0.017***
			(0.004)	(0.004)	(0.008)	(0.008)	(0.005)	(0.004)
Free-rider			-0.039***	-0.126***	-0.084***	-0.052**	-0.015*	-0.181***
			(0.006)	(0.010)	(0.012)	(0.018)	(0.007)	(0.013)
Female		0.088***		0.088***		0.088***		0.082***
		(0.003)		(0.003)		(0.006)		(0.004)
Age	-0.020***	0.005***	-0.021***	0.005***	-0.005	0.004***	-0.035***	0.005***
	(0.004)	(0.000)	(0.004)	(0.000)	(0.006)	(0.000)	(0.004)	(0.000)
African-American		-0.074***		-0.073***		-0.062***		-0.085***
		(0.003)		(0.003)		(0.005)		(0.004)
Hispanic		-0.067***		-0.065***		-0.080***		-0.050***
		(0.004)		(0.004)		(0.008)		(0.005)
Poor health	0.013***	-0.022***	0.012***	-0.025***	-0.025***	-0.015+	0.033***	-0.029***
	(0.003)	(0.005)	(0.003)	(0.005)	(0.006)	(0.008)	(0.004)	(0.006)
Urban	0.001	0.029***	0.001	0.028***	-0.002	0.031***	0.000	0.024***
	(0.005)	(0.002)	(0.005)	(0.002)	(0.008)	(0.004)	(0.006)	(0.003)
Right-to-work state	-0.041***	0.023***	-0.039***	0.026***				
	(0.006)	(0.002)	(0.006)	(0.002)				
Education	0.012***	0.027***	0.012***	0.027***	0.004	0.032***	0.019***	0.025***
	(0.002)	(0.001)	(0.002)	(0.001)	(0.003)	(0.001)	(0.002)	(0.001)
Part-time	0.005	0.063***	0.005+	0.061***	0.019***	0.061***	-0.002	0.070***
	(0.003)	(0.005)	(0.003)	(0.005)	(0.005)	(0.009)	(0.004)	(0.006)
Tenure	0.003***	0.005***	0.003***	0.005***	0.002***	0.007***	0.002***	0.004***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
New job	0.006**	-0.018***	0.007**	-0.018***	0.016***	-0.025**	0.005+	-0.005
	(0.002)	(0.005)	(0.002)	(0.005)	(0.004)	(0.008)	(0.003)	(0.006)
Public sector	-0.005	-0.014***	-0.005	-0.015***	-0.023***	-0.022***	-0.006	-0.010*
	(0.004)	(0.003)	(0.004)	(0.003)	(0.007)	(0.005)	(0.005)	(0.004)
Non-man./prof. occ.	-0.010***	-0.092***	-0.010***	-0.097***	-0.017***	-0.121***	-0.009**	-0.091***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.005)	(0.006)	(0.003)	(0.004)
Gave informal support	-0.016***	0.114***	-0.016***	0.112***	-0.025***	0.123***	-0.011**	0.118***
	(0.003)	(0.006)	(0.003)	(0.006)	(0.005)	(0.010)	(0.004)	(0.007)
Received informal support	-0.034***	0.033***	-0.034***	0.033***	-0.040***	0.156***	-0.026***	-0.043***
	(0.003)	(0.005)	(0.003)	(0.005)	(0.005)	(0.009)	(0.003)	(0.006)
Religious	0.361***	0.070***	0.361***	0.070***	0.547***	0.104***	0.272***	0.063***
	(0.022)	(0.003)	(0.022)	(0.003)	(0.047)	(0.006)	(0.026)	(0.003)
Cohabitating spouse	0.030***	0.081***	0.030***	0.084***	0.044***	0.089***	0.016***	0.075***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.007)	(0.006)	(0.005)	(0.005)
Number of children	-0.001	0.009***	-0.001	0.009***	0.006*	0.004*	-0.004**	0.011***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)
(log) Family income	0.029***	0.184***	0.029***	0.181***	0.018***	0.169***	0.038***	0.182***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.004)	(0.002)	(0.003)
-2LL	279,965		279,608		108,034		169,964	
Individuals	5,217		5,217		2,300		2,885	
Observations	14,889		14,889		6,364		8,286	

Notes: Average partial effects reported. Intercepts and year effects omitted to save space. Between-effects refer to time-invariant gaps in giving between free-riders, union members, and non-union workers. Within-effects refer to the time-varying effects of change in union status on the outcome variable. For a detailed explanation, see text. Data are weighted. Statistical significance: +$p < 0.10$; *$p < .05$; **$p < .01$; ***$p < .001$ (standard errors are in parentheses).

Table 5. **Relationship between union status and total amount of (log) charitable giving**

	Base Model		Full Model		Right-to-work states		Non-right-to-work states	
	Within	Between	Within	Between	Within	Between	Within	Between
Union member			0.165***	0.381***	0.249***	0.920***	0.115***	0.252***
			(0.022)	(0.022)	(0.045)	(0.047)	(0.025)	(0.026)
Free-rider			-0.238***	-0.801***	-0.356***	-0.974***	-0.137***	-0.682***
			(0.032)	(0.070)	(0.061)	(0.112)	(0.037)	(0.090)
Female		0.630***		0.638***		0.711***		0.534***
		(0.023)		(0.023)		(0.040)		(0.028)
Age	-0.078***	0.034***	-0.085***	0.035***	0.014	0.030***	-0.194***	0.038***
	(0.023)	(0.001)	(0.023)	(0.001)	(0.034)	(0.001)	(0.030)	(0.001)
African-American		-0.353***		-0.363***		-0.285***		-0.393***
		(0.022)		(0.022)		(0.033)		(0.030)
Hispanic		-0.604***		-0.599***		-0.810***		-0.394***
		(0.030)		(0.030)		(0.050)		(0.036)
Poor health	0.044*	-0.178***	0.041*	-0.183***	-0.201***	-0.190***	0.129***	-0.190***
	(0.019)	(0.032)	(0.019)	(0.032)	(0.033)	(0.053)	(0.022)	(0.039)
Urban	0.130***	0.124***	0.133***	0.121***	0.212***	0.191***	-0.022	0.059**
	(0.026)	(0.016)	(0.026)	(0.016)	(0.040)	(0.025)	(0.037)	(0.020)
Right-to-work state	-0.207***	0.339***	-0.200***	0.383***				
	(0.030)	(0.014)	(0.030)	(0.015)				
Education	0.050***	0.191***	0.052***	0.192***	0.027+	0.224***	0.081***	0.175***
	(0.009)	(0.004)	(0.009)	(0.004)	(0.015)	(0.006)	(0.012)	(0.004)
Part-time	-0.030+	0.280***	-0.029+	0.276***	0.095***	0.200***	-0.081***	0.376***
	(0.016)	(0.032)	(0.016)	(0.032)	(0.029)	(0.053)	(0.018)	(0.039)
Tenure	0.013***	0.024***	0.013***	0.020***	0.012***	0.027***	0.013***	0.017***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)
New job	0.061***	-0.209***	0.065***	-0.201***	0.089***	-0.325***	0.085***	-0.115**
	(0.011)	(0.033)	(0.011)	(0.033)	(0.020)	(0.052)	(0.014)	(0.042)
Public sector	-0.013	-0.008	-0.018	-0.063**	0.010	-0.055+	-0.069**	-0.098***
	(0.020)	(0.018)	(0.020)	(0.020)	(0.035)	(0.031)	(0.024)	(0.026)
Non-man./prof. occ	-0.116***	-0.541***	-0.115***	-0.603***	-0.083***	-0.759***	-0.152***	-0.562***
	(0.013)	(0.020)	(0.013)	(0.020)	(0.022)	(0.034)	(0.016)	(0.024)
Gave informal support	-0.015	0.719***	-0.017	0.706***	-0.057*	0.816***	-0.001	0.690***
	(0.013)	(0.033)	(0.014)	(0.033)	(0.025)	(0.058)	(0.016)	(0.040)
Received informal support	-0.211***	0.179***	-0.209***	0.185***	-0.336***	0.925***	-0.103***	-0.288***
	(0.015)	(0.035)	(0.015)	(0.035)	(0.026)	(0.059)	(0.018)	(0.043)
Religious	2.677***	0.580***	2.665***	0.582***	4.299***	0.845***	1.926***	0.515***
	(0.114)	(0.020)	(0.114)	(0.020)	(0.260)	(0.037)	(0.135)	(0.023)
Cohabitating spouse	0.303***	0.744***	0.308***	0.761***	0.391***	0.914***	0.212***	0.650***
	(0.022)	(0.025)	(0.022)	(0.025)	(0.039)	(0.043)	(0.027)	(0.030)
Number of children	0.062***	0.081***	0.060***	0.079***	0.113***	0.052***	0.032***	0.094***
	(0.006)	(0.008)	(0.006)	(0.008)	(0.012)	(0.014)	(0.008)	(0.010)
(log) Family income	0.155***	1.380***	0.154***	1.357***	0.064***	1.189***	0.229***	1.419***
	(0.009)	(0.015)	(0.009)	(0.015)	(0.015)	(0.025)	(0.012)	(0.019)
-2LL	1,395,834		1,395,229		517,918		875,006	
Individuals	5,217		5,217		2,300		2,885	
Observations	14,889		14,889		6,364		8,286	

Notes: Average partial effects reported. Intercepts and year effects omitted to save space. Between-effects refer to time-invariant (overall) gaps in giving between free-riders, union members, and non-union workers. Within-effects refer to the time-varying effects of change in union status on the outcome variable. For a detailed explanation, see text. Data are weighted.
Statistical significance: +p < 0.10; *p < .05; **p < .01; ***p < .001 (standard errors are in parentheses).

Table 6. **Transition matrix between different union statuses**

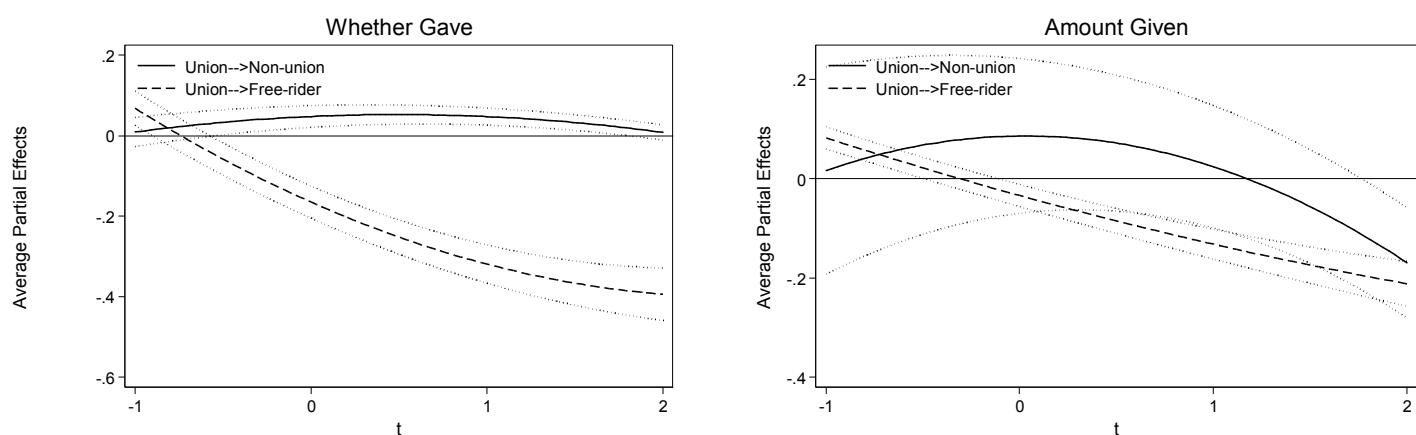|	*Non-union*	*Free-rider*	*Union member*
Non-union	13,128	196	394
Free-rider	202	151	80
Union member	383	56	2,387

Notes: Data are weighted.

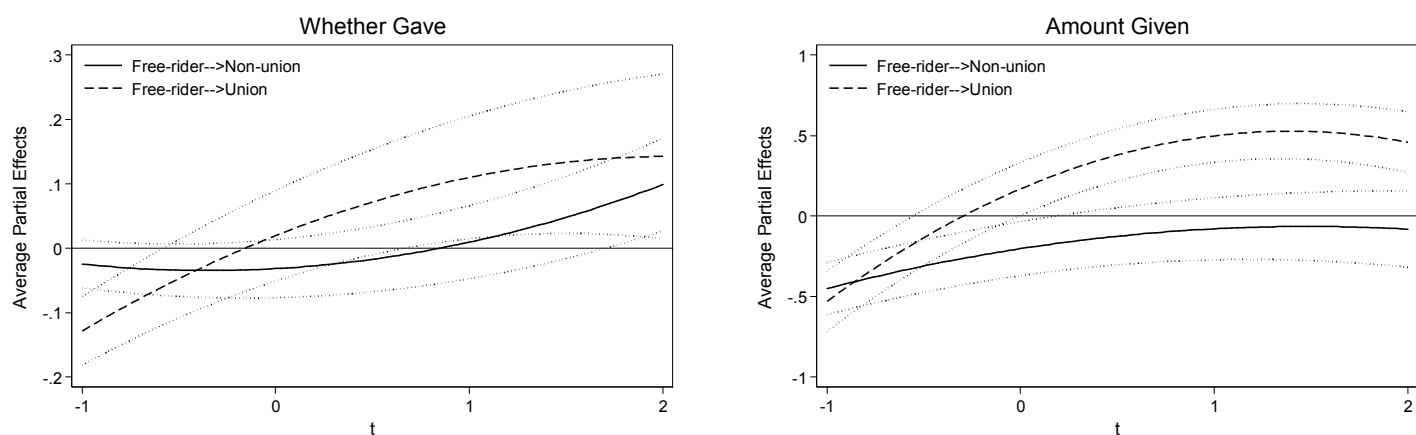*Figure 1.* **Impact of change in unionization on giving across panels**

Panel A: Non-union → union or free-rider
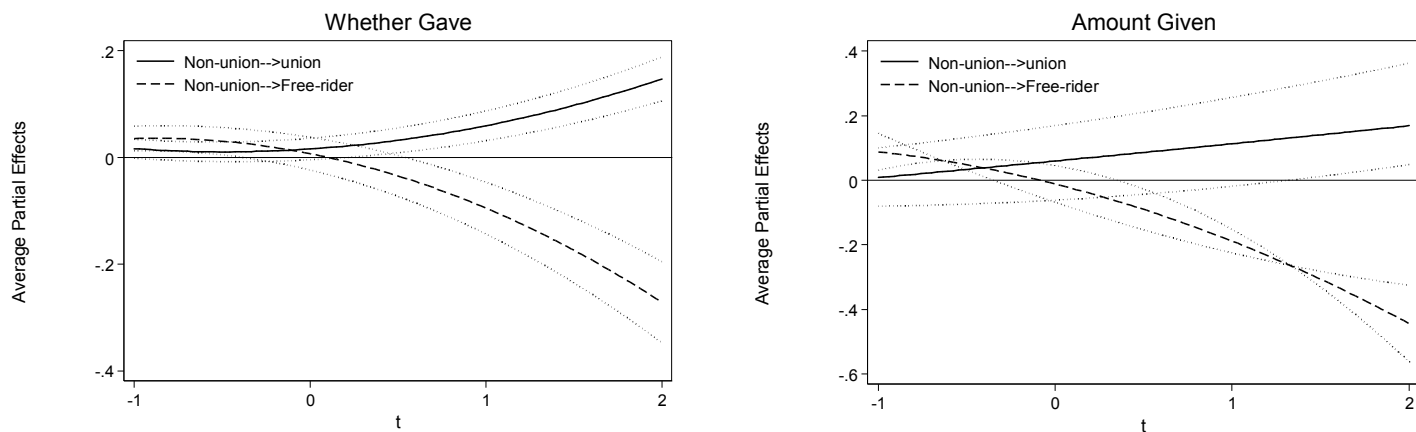
Panel B: Union → free-rider or non-union

Panel C: Free-rider → union or non-union

Light dashed lines are 95 per cent confidence intervals. Data are weighted.

Appendix 1. **Variable descriptions**

Variable name	Description
Dependent variables:	
Whether donate to charity	Whether gave >$25 to a charitable organization in previous year (screening question for amount given) (1 = gave; 0 = never gave)
Amount donated to charity	Total giving across all types of charitable organization (logarithm), coded 0 if whether gave is 0.
Independent variables:	
Union member	Whether working under a union contract in main job AND member of the union (1 = if so; 0 = otherwise)
Free-rider	Whether working under a union contract in main job AND NOT a member (1 = if so; 0 = otherwise)
Control variables:	
1. Demographic controls:	
Female	Gender of household head (1 = female; 0 = male)
Age	Age of head at time of interview (years)
African-American	Whether self-report African-American (1 = African-American; 0 = non-African-American)
Hispanic	Whether self-report Hispanic (1 = Hispanic; 0 = non-Hispanic)
Poor health	Self-reported health (1 = poor ; 0 = excellent, very good, good, or fair health)
Urban resident	Beale-Ross Rural-urban continuum
Right-to-work state	Whether reside in state with right-to-work laws (1 = resides in Alabama, Arizona, Arkansas, Florida, Georgia, Idaho, Iowa, Kansas, Louisiana, Mississippi, Nebraska, Nevada, North Carolina, North Dakota, Oklahoma (2001 and after only), South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, or Wyoming; 0 = all other states)
Education	Years of education
2. Job and workplace controls:	
Part-time	If worked fewer than 1560 hours of paid work over the reference year
Tenure in current job	Tenure in current job (years)
New job	Whether working for a new employer since date of previous interview (1 = moved employer; 0 = same employer)
Public sector	Whether works in the public sector (1 = federal government, state government, local government and public school system; 0 = private sector, non-government, and other)
Non-managerial/professional occupation	Whether occupation is non-managerial/professional (1 = service occupations, sales and office occupations, farming, fishing, and forestry occupations , construction, extraction, and maintenance occupations, productions, transport, and material occupations; 0 = managerial and professional occupations)
3. Social capital indicators:	
Gave informal support	Whether gave financial support to relative or non-relative (1=gave; 0 = did not)
Received informal support	Whether received financial support from relative or non-relative (1 = received; 0 = did not)
Religious	Reported religious affiliation (1 = yes; 0=no)
4. Household controls:	
Presence of cohabiting spouse	Whether reporting cohabiting (1 = cohabiting spouse, married or not; 0 = otherwise)
Number of children	Number of children in family unit under 17
Family income	Net family income from all sources (logarithm)