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DISCUSSION PAPER SERIES

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ABSTRACT

The Economic Benefits of Volunteering and Social Class

A theory that the economic benefits of volunteering are contingent on social class (as defined by similarities in labour market situation) is tested using seven waves of longitudinal data from the British Household Panel Study gathered between 1996 and 2008 and fixed-effects models. Volunteering has a positive effect on earnings, but it is confined to people in professional and managerial occupations. Employees in white and blue collar jobs do not benefit. The study suggests that inconsistent results from previous studies might be due to failure to consider occupational heterogeneity among volunteers.

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The Economic Benefits of Volunteering and Social Class

Lately, the fact that volunteers, deemed as giving away their time and energy, get rewards in the form of higher wages has attracted considerable academic and popular attention. Although the results of two decades of research on this topic are somewhat mixed, the weight of the evidence is that volunteers do indeed earn more money. However, not all volunteers, it seems, enjoy these benefits to the same degree. For example, they are conditioned by gender and work experience. The examination of moderation effects is one way the science in a field advances. It enables us to move beyond blanket generalizations and to narrow down possibilities thus helping us expose the mechanisms that account for a relationship. The study reported here takes up this challenge by testing a hypothesis that the benefits of volunteering accrue disproportionately to workers in occupations that allow them to invest the capital they have gained from volunteer work.

A hypothesis that the benefits of volunteering are dependent on social class position calls for a definition of social class. We will argue that the most helpful theory of social class is one in which occupations (not persons) are ordered depending on the nature of the "contract" between employer and employee. The labor market is not an atomized and anonymous bargaining center in which employers and employees meet. It is a complicated social structure consisting rules governing the distribution of earnings and other economic rewards. Workers employed in certain occupational groups operate according to one set of rules for determining pay while others operate according to another. Our contention is that the class in which the volunteer is located helps determine the value of any assets or resources volunteer work might have created.

In what follows we will first discuss the theory as to why volunteer work "pays off" in terms of higher wages. Drawing on the literature on volunteering and its consequences we identify three mechanisms to explain the relationship. The next section lays out the argument as to why these mechanisms would be more efficacious for some employees than others. This argument requires us to identify groups of occupations and we do so by drawing on a well-known theory of occupational stratification in which classes are defined by employment status

(employer, self-employed, employee) and, among employees, by the nature of the employment contract. This restriction is important to bear in mind: we are interested in the moderation of the relation between volunteering and income among those who have an employment contract, among employees. Whether or not the effect of volunteering is moderated by other class positions as defined by Goldthorpe is beyond the scope of this study.

Mechanisms Linking Volunteer Work and Earnings

There is consensus among social scientists working this area that there are "[t]hree channels through which volunteering may affect earnings" (Bruno and Fiorello 2016: 4). The first is the acquisition of skills and work-related experience; the second is the extension of social networks; and the third is ability signaling (Baert and Vujic 2016; Day and Devlin 1998; Hackl et al. 2007; Qvist and Munk 2017; Shantz et al. 2018).

The first channel is suggested by human capital theory, according to which disparities in earnings are believed to be caused by differences in cognitive ability (e.g. educational qualifications) and job skills (e.g. work experience). Previous attempts to test this theory have focused on the role of formal types of human capital, such as education (Coleman, 1988), but the term human capital is easily extended to include informal learning channels such as volunteer work. Through their volunteer work, people learn hard skills, such as business management, carpentry, or software usage, as well as soft skills such as client relations, good communication and teamwork (Kamerade, 2015).

Evidence for the existence of this mechanism is persuasive. It is quite common for people to say that volunteering has taught them valuable job skills and that their career has benefitted as a result (Chum et al., 2015: 4; Hall et al., 1998; Hodgkinson and Weitzman, 1996; Low et al., 2007: 34). In some instances, volunteering might be the only way the skills necessary to get a raise in pay or move to a higher paying job are obtainable (Taylor, 2004: 37). When working unpaid in an organization, volunteers are effectively auditioning for a role, getting the chance to demonstrate their reliability and trustworthiness to prospective employers (Smith, 2010: 291).

The second channel, social network expansion, is suggested by social capital theory according to which well-paying jobs are partially due to having useful social connections. Workers who can mobilize the right kind of personal contacts and obtain the most useful job information from them are at an advantage, whether this means moving to a better paying job or obtaining an increase in pay from an existing employer (Burt, 2000; De Graaf and Flap, 1988).

Research supports the notion that volunteering expands social networks. Volunteers tend to have more social capital than non-volunteers: they have more ties to people in occupations and work organizations other than their own, they belong to more voluntary associations, and they have more diverse social networks (Alexander et al., 2012; Bekkers et al., 2007; Benton, 2016; Van Ingen and Kalmijn, 2010; Isham et al., 2006; Paik and Navarre-Jackson, 2011).

The third channel is ability signaling. Employers often depend on "signals" of an employees' worth when determining pay because direct and objective measures, such as those that might indicate motivation, reliability, honesty or commitment are absent (Spence, 1973). It is widely believed that volunteer activities signal abilities (Baert and Vujic, 2016; Bruno and Fiorello, 2016; Collins and Long, 2015; Guttman and Goette, 2015; Katz and Rosenberg, 2005; Qvist and Munk, 2017; Taylor, 2005). It is also conceivable, of course, that engaging in volunteer work is interpreted by employers as a distraction from the job or lack of commitment to one's job or career (Hackl et al., 2007). In this case there would be a negative relation between volunteering and income.

Most of the evidence from studies in this area shows that employees look favorably on volunteers. LinkedIn, a popular professional networking site based in the United States with members in over 135 countries, recently added a field for members to list their volunteer activities in their profiles. A survey sponsored by the organization had discovered that forty-one percent of employers rated volunteer work as equal in importance to paid work when selecting new employees. One in five had based a recent hiring decision on the candidate's volunteer work [http://press.linkedin.com/node/870]. In a recent field experiment, pairs of fictitious applications for real job vacancies that were identical except for the inclusion of volunteer work on one of the pair were sent to prospective employers. The applicants with volunteer work in their profile had a thirty-three per cent higher probability of being invited for a job interview (Baert and Vujic,

2016). In a 2009 survey in the United Kingdom over seventy percent of employers said that employees who volunteer have a better chance of getting an increase in salary and gaining promotion [www.timebank.org.uk/key-facts]. Some of these studies are about hiring decisions but there is no reason to think that volunteering is of less value when it comes to allocating economic rewards such as bonuses and raises in pay. One can expect that reduced interview rates translate into reduced job and wage offers (Baert and Vujic, 2016).

In summary, the "channels" or mechanisms linking volunteering to earnings have been conceptualized as the acquisition of the very assets that research into income determination has shown be useful in obtaining higher earnings. Human capital draws attention to differences in job-related skills; social capital focuses on weak (or bridging) ties to relative strangers who might know about jobs that pay better; ability signaling captures the more symbolic connection between volunteering and earnings by highlighting the way in which employers interpret activities listed on a resume favorably. However, these assets do not have the same value for all workers and the following section explains why.

Moderation by Social Class

To test a theory that the benefits of volunteering are conditioned by social class it is necessary to choose a conceptual scheme to differentiate one occupational group from another. In this study we use a classification schema developed by John Goldthorpe and his collaborators. The schema is "arguably the most influential occupation-based social classification in sociology" (Connelly et al., 2016: 4) and has been "widely used" in the sociology of work as an explanatory variable (Williams, 2014: 154). Its origins and development can be followed in Eriksen et al. (1979), Goldthorpe (1980), and Erikson and Goldthorpe (1992). For a comparison of this schema with other occupation-based schemas see Lambert and Bihagen, (2014).

Despite changes in terminology over the years the central idea of the scheme, that the employment relationship is central to the differentiation of classes, has remained constant (Marshall et al. 2001:24). The initial level of differentiation is between employers, the self-employed (or proprietors), and employees. A further differentiation among employees (who make up the large majority of the active working population) is based on how the employment relation is regulated. Class position within employees is determined by whether employment is

regulated *via* a "labour contract" or a "service relationship" (Marshall et al. 2001; Goldthorpe, 2010: 316). This is the distinction we highlight in our analysis.

Those whose employment is governed by a labour contract are predominantly working class wage earners in routinized manual occupations. They are governed by piece-work or time-rate payments systems, rely heavily on over-time or shift-work for increases in take-home pay, and are more exposed to loss of pay through sickness, accidents, or unemployment (Goldthorpe, 2010: 323). Work is precisely measured and controlled, often by machines, as in assembly-line work, typically entailing physical rather than symbolic activity. The underlying logic is that pay will vary according to the amount of work done. In contrast, the work performed in service occupations is more difficult to define precisely and monitor closely. Earnings are only loosely tied to productivity. Instead, salary is expected to increase in level over time "conditional upon satisfactory appraisal of a relatively long-term kind" (Goldthorpe and McKnight 2004: 15). Trust between employer and employee is important, involving longer-term and more diffuse exchanges (Erikson and Goldthorpe 1992:42). Those who have a service relationship with their employers consist chiefly of professional, administrative and managerial employees. [Over time the term "salariat" has replaced "service relationship" as the name for this category to avoid confusion with jobs in the service industry such as waitressing.]

Why choose Goldthorpe's schema to test the hypothesis that occupational group moderates the influence of volunteering on earnings? Because it divides employees into groups based not on occupational prestige, socio-economic status, the nature of the tasks performed, or ownership of property but on *the manner in which earnings are determined*. It is this feature that governs whether assets provided by volunteering are deployable in the labor market. Because of the way their pay is determined, employees in salariat jobs have the potential to exercise more control over the labour process, not least how much they get paid. For example, a reputation for community service – ability signaling - can make little difference to the pay of an assembly-line worker or a waitress because their earnings are tightly regulated by national agreements or closely related to productivity. Even if volunteer work does provide human or social capital it is unlikely to have much influence over the pay of employees in these situations. The same assets, however, could be more productive in the case of occupations such as that of a sales manager in a large retail store (a member of the salariat) where soft skills can be deployed, social ties in the

community would be more important for the successful promotion of one's business, and ability signals can be interpreted by superiors.

In summary, volunteer work creates assets of various kinds but the value of these assets depends on the class position of the employee. Higher class volunteers who "invest" in volunteer work stand to benefit more than lower class volunteers. This moderation theory has not been articulated or tested before, as the following literature review will demonstrate.

Literature Review

To date, sixteen studies of the relation between volunteering and earnings have been published. They vary widely in the data they use, their analytical strategy, measures of earnings, and results. An important distinction within this literature is between studies that rely on cross-sectional data and those that use longitudinal data because the direction of the causal relation between volunteering and income is open to debate (Qvist and Munk, 2018).

Cross-sectional Studies

Day and Devlin (1998) found that Canadian volunteers earn about seven percent more per year than non-volunteers, benefits shown in a subsequent analysis of the same data to be limited to men (Day and Devlin, 1997). On both occasions household rather than personal earnings was used as the dependent variable and both studies were for this reason confined to respondents who were the sole breadwinners in their household. This limitation was overcome in another Canadian cross-sectional study using personal earnings as the outcome variable: volunteers earned four per cent more than non-volunteers (Devlin, 2001). In a subsequent cross-sectional study of Canadian personal earnings male volunteers earned fourteen per cent more a year than males who were not volunteers but women did not benefit economically from their volunteer work (Devlin, 2003).

Cross-sectional studies have also been conducted in a number of European countries with various methods being used to tackle the endogeneity issues attendant on the use of simultaneous

measures of volunteering and earnings. An Austrian study found that volunteers earned 18.5 per cent more than non-volunteers (Hackl et al., 2007). A French study (limited to volunteers acting in a managerial capacity) found a positive effect of wages in the public sector but a negative effect in the private sector (Prouteau and Wolfe, 2006). In Italy, volunteers were found to earn 3.3 percent more than non-volunteers (Bruno and Fiorello, 2016).

Longitudinal Studies

Longitudinal data are best suited to investigating the influence of volunteering on earnings, but research using panel data shows inconsistent results. Author E's (2015) analysis of PSID data showed that an extra year of volunteering increased women's wages for part-time workers by 8.3 per cent and for full-time workers by 2.4 per cent. Men were not included in the study. Statham and Rhoton (1985) and Paine et al. (2013) found that volunteers earn less money than non-volunteers, but the first study was limited to women. Jorgenson (2013), Ruiter & De Graaf (2009), and Author D (2003) found no effect of volunteering, the last for women only. Author B (2017) reports positive returns to volunteering, especially for men. A Danish study shows that the economic returns to volunteer work are largest during the early stages of working life (Qvist and Munk, 2018). Finally, a recent growth-curve analysis of Canadian data shows that volunteering is significantly related to both initial income and growth in income over time but that men benefit more than women (Shantz et al., 2018).

Two general conclusions can be drawn from this research. The first is that the estimates in longitudinal studies are smaller than those in cross-sectional studies, suggesting an upward bias in the latter due to a failure to take into account other variables that could account for an association between volunteering and earnings (Qvist and Munk, 2018). The second is that the relation between volunteering and earnings is often contingent on other factors such as gender, work experience and sector. However, none of these studies considers the possibility that the benefit of volunteering might differ by employment situation.

The current study looks to improve on previous research by (1) using panel data and lagged variables; (2) estimating fixed effects models to examine within-person changes; (3) measuring personal rather than household earnings; and (4) examining class moderation effects.

Data

The data for the study are drawn from the British Household Panel Survey (BHPS), which began in 1991 with a representative sample of 5,500 households (10,300 individuals) residing in 250 different regions in England, southern Scotland and Wales. Each adult member of the original sample (aged 16 and over) was interviewed face-to-face and re-interviewed annually. Wave 1 sample members were followed into new households if they moved out of their original household. New members of any surveyed household were also interviewed. Supplemental samples from Scotland and Northern Ireland were added in 2000 (4,900 households in total). Finally, the European Community Household Panel survey was merged from 1997 to 2001 (1,000 households). This means that the sample size increased over time. The peak was reached in 2001 with a total population of 18,867.

The BHPS introduced questions about volunteering in 1996 as part of a module on leisure time pursuits. The module was repeated every other year. This study uses seven waves of information on volunteer work between 1996 and 2008. The estimation sample comprises 7,127 men and 8,566 women, corresponding to 21,266 man-years and 28,186 woman-years. It is defined by the following exclusions: (1) only respondents between the ages of 15 and 65 in 1996; once an individual reaches 65 years he or she is automatically dropped from the sample; (2) retirees, the long-term sick and disabled, and individuals who did not reply to the employment questions are excluded from the analysis; (3) those who reported very low earnings (less than £2.5 per hour in 2017 pounds) *and* were employed for less than the full year, indicating that their earnings reflected partial absence from the labour market rather than the rate of pay for their job; (4) respondents who reported very high work hours (more than seventy hours a week) and very low work hours (5 hours a week or less), the purpose of this exclusion being to focus on regular employment situations[i]; (5) In the fixed effects models individuals who have not been interviewed for at least three waves are excluded from the sample. Altogether, the exclusions listed above remove only two per cent of the BHPS sample.

We also exclude the self-employed from the analytical sample, for theoretical reasons. The moderation hypothesis proposes that the value of volunteer assets is affected by the nature of the employment relations typical of the occupational group. As others have noted, Goldthorpe's scheme "reserves a particular class location for the self-employed" (Marshall et al. 2001:25). The self-employed (including proprietors) either have no employment relation because they are independent or they are employers. The moderation hypothesis, based on the employment relation of employees, does not therefore apply to them. It should also be noted that the self-employed are notoriously unreliable income reporters: in the BHPS fifty percent of independents fail to provide information on their income (Goldthorpe and McKnight 2004:22).

Main Variables

Every other year, the BHPS asks respondents if they had engaged in volunteer work in the previous twelve months. Rather than use a variable indicating volunteer status (yes/no) in any given wave a variable is constructed that documents whether the respondent volunteered in the previous twelve months *or had done so in any previous wave*. In constructing this variable we assume that the influence on earnings of informal types of capital such as that provided by volunteering should be tested in the same way as capital theories are tested in the case of paid employment. According to these theories, individuals make lasting investments in their own set of productive skills by obtaining general experience in the labour market and specific experience with current employers (Tomaskovic-Devey et al., 2005: 60). The same should be true of the capital created by volunteering. For example, the social connections created during volunteer spells should have lasting value even if the volunteer work ceases. In the context of a panel study with several waves of data collection, the measurement should thus capture whether the respondent had volunteered at any time up to that point. For example, if a respondent volunteered in the 6th wave of the study his or her status as a volunteer remains positive in wave 8 (regardless of whether he or she volunteered in wave 8) and does so until the end of the study. However, this is not a cumulative measure of volunteer experience because the BHPS provides no information on the respondent's volunteer activity prior to entry into the survey and because the panel data are not pooled.

Volunteering – The wording of the volunteering question is: "We are interested in the things people do in their leisure time. I'm going to read out a list of some leisure activities. Please look at the card and tell me how frequently you do each one...unpaid voluntary work." The options are:1) at least once a week, 2) at least once a month, 3) several times a year, 4) once a year or less and 5) never/almost never. Using this information a dummy variable for each respondent in each wave was constructed equal to 1 if the respondent reported volunteer work in the wave two years prior or had done so in any previous wave. Otherwise the variable was set to zero.

Personal Earnings – Logarithm of annual labour earnings (wages and salaries) constructed by inflating reported earnings to 2017 pounds.

Moderating Variable

Social Class - Goldthorpe's original schema identified eleven classes and this version is used in the BHPS. It refers to occupations not persons (Erikson and Goldthorpe 1992:37). The top classes, "service class higher" and "service class lower", are the "salariat" consisting of professional, higher technical, administrative, and managerial occupations. At the lower end of the scale are occupations that are manual skilled and unskilled, occupations that comprise the traditional "working class" (Evans, 1992: 224). At the intermediate level are occupations that are routine, non-manual and lower technical, manual and supervisory (Evans, 1992). Occupations in the intermediate class have some of the attributes of both polar classes (Evans, et al., 2000). As already noted, we exclude the self-employed from the analysis. Since interaction analyses with eleven classes would not be feasible only the three-fold version consisting of the salariat, the intermediate class, and the working class is used here.

Control Variables

The following variables are used as controls because research shows that each is correlated with both volunteering and earnings.

Age – dummy variables are used: 15-21, 22-28, 29-35, 36-42, 43-48, 49-56, 57-62, and 63-65. Each dummy is set to 1 if the person is in the specific age category and 0 otherwise.

Education – The highest qualification achieved in any given year, captured by seven dummy variables: still in school with no qualification, no qualification or other qualification, secondary school (Apprenticeship, CSE grade 2, Commercial), high school (A or O levels), first degree (including teaching and nursing qualifications), or higher degree. Each dummy is set to 1 if the person achieved the specific education category and 0 otherwise.

Potential Work Experience – Years of work experience is calculated as the difference between the current year and the first year that labour force status was recorded in the panel study. The variable is recoded so that, if the individual has spells of unemployment during the survey years, employment experience is not reset. Because we do not have information on work experience over the respondent's entire adult life we use the term "potential work experience" for this variable.

Working full time – a dummy variable defined as 1 if the respondent reports working 30+ hours per week and 0 otherwise.

Sector – A set of dummy variables indicating the sector in which the individual currently works. These are: private firm/company (used as base category), civil servant/central government, local government/town hall, NHS or higher education, nationalized industry, and non-profit organization. Each dummy is set to 1 if the person works in a specific sector and 0 otherwise.

Partnership – A dummy variable equal to 1 if the respondent is married or living with someone as a couple, and equal to 0 if single, divorced, widowed, or never married.

Number of Children – A continuous variable recording the number of biological children living in the household.

Age of children – A set of dummy variables indicating the presence of at least 1 child between the ages of 0-2, 3-4, 5-11, and 12-18 in the household. The child is not necessarily the offspring of the respondent. Each dummy is set to 1 if there are children of that age in the household and 0 otherwise.

Union – A dummy variable equal to 1 if there a trade union in the workplace for those having the respondent's occupation and 0 otherwise.

Year of Survey – A dummy variable to indicate whether the year of survey is 2002. The dummy is equal to 1 if the year is 2002 and 0 otherwise. This control is necessary because a change in the response options on the showcard presented to respondents between wave 10 (2000) and wave 12 (2002) resulted in an increase in the proportion saying they volunteered "once a year or less" generating a substantial increase in the numbers reporting any volunteering at all (Staetsky and Mohan, 2011).

The BHPS experienced attrition over the twelve years covered by this study (Uhrig, 2008). However, regression estimates suffer from attrition bias only if the number of years an individual contributes to the panel is related to the idiosyncratic error term ε_{it} in the models. An analysis of the data, where the dependent variable took the value 0 if it was the respondent's first year in the sample, 1 if it was the second year in the sample, and so on and where the covariates were the two main variables (annual labour earnings and volunteer experience) showed that the coefficients on earnings and volunteering were not statistically significant. It is unlikely that the results obtained from fixed effects models suffer from attrition bias.

Analytical Strategy

The study relies on fixed effects (FE) models to estimate within-person changes in earnings while controlling for between-person differences and fixed attributes of individuals such as gender. The FE estimate measures the average change in earnings for those who change their volunteer status over the sample period, compared to the average change in earnings for those who do not. This does not assume that all respondents were non-volunteers at the beginning of the sample period, simply that during the sample period some will change their volunteer status.

The volunteer variable is lagged: that is, the variable indicates whether or not the respondent volunteered in the *previous wave (i.e. two years before)*, while earnings are measured in the current wave. The benefits of this approach have already been outlined by Qvist and Munk (2018). Lagging volunteer experience by two years adds plausibility to the argument that earnings are the result rather than the cause of volunteering. A spell of volunteer work that

happened two years ago cannot have been affected by earnings in the current year. Finally, an interaction term between volunteering and each of the three occupational categories is computed to test the social class moderation hypothesis.

The fixed effects model specifies the population relationship between the annual labour earnings of individual *I* at time *t* in a paid job, Y_{it}, and the determinants of earnings as:

$$(1) \qquad \mathrm{Y}_{it} = \alpha V_{it-1} + \beta X_{it} + u_i + \varepsilon_{it}$$

Where V_{it-1} is a proxy for volunteering lagged for one year, X_{it} is a vector of individual characteristics, u_i is an individual time-invariant effect, and ε_{it} is a time-varying random error component. The coefficient α measures the change in mean earnings due to a change in volunteer status. The coefficient vector β captures the effect on mean earnings of observed individual characteristics other than volunteer status. X_{it} contains observed individual characteristics that are related to human and social capital and ability signaling and also correlated with volunteer status (e.g., education). The main role of X_{it} is to correct for omitted variable bias in the estimate of Y_{it}, the increase in earnings due to a change from non-volunteer to volunteer status. The individual fixed-effect u_i corrects for omitted variable bias due to factors, such as gender, parental education and personality that might be correlated with both income and volunteering and are fixed over time. ε_{it} represents unobserved human and social capital and ability signaling that can vary over time for each individual.

We then estimate an equation which includes the interaction between volunteering and social class (salariat S_{it}, intermediate I_{it} and manual M_{it}):

$$(2) \qquad \mathrm{Y}_{it} = \alpha V_{it-1} + \gamma_1 V_{it-1} S_{it} + \gamma_2 V_{it-1} I_{it} + \gamma_3 V_{it-1} M_{it} + \beta X_{it} + \mathrm{u}_i + \varepsilon_{it}$$

Throughout the analyses we present two sets of findings, one for the whole sample where zero earnings is coded for those not participating in the labour market and one for employed respondents only. The reason for this distinction is that some of the research on the economic benefits of volunteering has focused on "employability". Does volunteering make it easier to enter the labour market after a spell of unemployment or absence for some other reason (Paine et al., 2013)? If volunteering does improve one's chances of getting a job after a spell of unemployment then including unemployed respondents in the analytical sample possibly confounds the effect of volunteering on earnings with the effect of moving from unemployment into employment (Qvist and Munk, 2017). On the other hand, focusing on employed individuals only risks delivering estimates affected by selection bias. A possible way to deal with this possibility without including unemployed individuals in the sample would be to use a Heckman Selection model but it would require the inclusion of at least one predictor (instrument) that should be added in the first stage and excluded in the second stage. The predictor must be exogenous, influence selection into the sample, but not related to the error term in the second stage. If the predictor is weak or endogenous then the estimates are inconsistent. In our case, finding an instrument with such characteristics proved fruitless. Consequently, presenting both sets of estimates seems the best way to show that the results for employed individuals only do not suffer from selection bias.

To test the moderation hypothesis interaction terms between the social class dummy variables and volunteer status are created. In the whole-sample analysis, which includes those not in the labor market, there are three social class dummy variables and the base category is not in the labor market. In this model F-tests are used to determine the statistical significance of any differences between the interaction coefficients. In the employed-only sample there are two social class dummy variables (manual workers is the base category) and therefore two interaction terms.

Results

Table 1 uses pooled data to show zero order differences in the average logged annual labour earnings between volunteers and non-volunteers and between volunteers and non-volunteers

within the social classes and the control variables. The third column indicates if the difference is statistically significant. Recall that the volunteer variable contrasts those in the pooled data who had volunteered in *any* wave with non-volunteers. On average, volunteers earn only slightly more than non-volunteers, although the difference is significant. While the overall effect of volunteering on earnings might be modest, the next three rows in Table 1 show that it varies by social class. Salariat workers who volunteer earn significantly more than salariat workers who have not volunteered. The same cannot be said of the other two classes, in both of which volunteers earn *less* than non-volunteers. The weak overall main effect is therefore reflecting the conflicting influences of social class position.

Table 1 about Here

The rest of the table shows the relation between the control variables and income, by volunteer status. Higher earnings are reported by males, full-time workers, and those who are: more highly educated, married, without school-age children, working in a unionized workplace, more experienced and employed by the central government or a nationalized industry. [Since potential work experience varies widely, the overall average is first calculated and individuals are classified according to whether they have more or less than the average years of potential work experience. The average earnings for both are then calculated.] Some of the differences shown support the thesis that the effect of volunteering is moderated by social class. For example, college graduates who volunteer earn more than college graduates who do not volunteer but among those with lower educational qualifications the opposite is true: volunteers earn less money than non-volunteers.

Fixed effects estimates for logged income are shown in Table 2. Standard errors are clustered at the individual level. In models 1 and 3 (those without interaction terms) estimates show positive effects of volunteering in the whole and employed-only samples. The salariat report higher earnings in both the whole sample and the employed-only sample, with the latter indicating that intermediate workers earn slightly more than manual workers (who are the omitted category in this model).

Table 2 about Here

The main effects models lays the groundwork for the moderation analysis. On average, volunteers earn more money, as do members of the salariat and, to a lesser degree, workers in intermediate occupations. Do these factors interact to multiply these differences? Models 2 and 4 in Table 2 report the results of the moderation analysis. In the whole sample model three interactions are reported. Compared to the non-employed respondents (i.e. those with zero earnings) all employees benefit from volunteering but the significant effect is confined to the salariat. [F-tests show that the differences between interactions involving the salariat and both of the other classes are significant but the difference in interactions between volunteering and the intermediate workers and volunteering and the manual workers is not significant.] In the employed-only sample, there are two interactions. Once again, salariat workers benefit more from volunteer work than the base category, manual workers. However, the interaction between volunteering and intermediate workers is negative and not significant, indicating that workers at the intermediate level do not benefit more from volunteering compared to manual workers, and might actually benefit less. In summary, both models (whole sample and employed-only sample) show that while there is no statistical difference in the effect of volunteering on earnings for manual and intermediate workers, salariat workers receive a larger benefit.

While the analysis thus far reported uses logged income as the outcome variable, typical of research on this topic, it is informative to have results expressed also in terms of the currency of the country from which the data are drawn (cf. Ruiter and De Graff, 2009). A log linear transformation eases the interpretation of results but also compresses the distribution of the dependent variable. This is particularly true in this case as the right tail of the distribution for the salariat is much longer than that of the other two classes, making it possible for the effect of volunteering to be associated with extremely wealthy individuals who use volunteer work to make powerful connections. Table 3 shows the results for the same models where income is expressed in pounds sterling, updated to 2017.

Table 3 about Here

In the whole sample, having volunteered previously causes a £1,200.6 increase in annual earnings; in the employed-only sample the increase is slight larger (£1,606.1). However, Table 3 makes it clear that the effect of volunteering on earnings depends on employment situation: the joint effects of volunteering and being a manual or an intermediate worker bring an increase of £1,984.4 and £1,980.0, respectively while the joint effect of volunteering and being a salariat worker increases earnings by £4,125.0. The F-tests of 26.23 and 17.47 show that these differences in interaction estimates are significant.

The results of testing the theory using pounds sterling with an employed-only sample are slightly different. In this case the interaction between having an intermediate occupation and volunteering is not significant. However, the effect of the interaction between being a salariat worker and having volunteered is positive and statistically significant (£2,074.2), confirming once again that the benefits of volunteering depend on employment situation.

Discussion

There are good reasons to be curious about the possible economic benefits of doing volunteer work. The situation of the average worker in the labour market of advanced industrial societies is becoming increasingly precarious. Stripped of the assurances of the traditional contract between employer and employee, such as the expectation of promotion *via* internal labour markets, workers are urged to adopt self-development strategies to better their chances of finding a job, being promoted, or getting a raise (Chum et al., 2015). Engaging in volunteer work is often touted as one of these strategies (Smith, 2010). But the question remains: does volunteering actually pay off or is it more akin to employee moonlighting and thus a distraction that harms job performance (Rodell and Lynch, 2016)?

This study confirms that volunteers earn more money than non-volunteers. It is still possible, of course, that there is nonrandom selection into volunteering and that high wage earners are more likely to volunteer or that low wage earners are situated in jobs that make it very difficult to engage in volunteer work. We attempt to reduce endogeneity bias by using longitudinal data, lagged variables and fixed effects models: current income cannot affect previous volunteering

and the fixed effects model rules out the possibility of time-invariant factors affecting both volunteering and income. Moreover, fixed effects models provide within-group estimates and as such show the effect of a change in volunteering status on future income for the individual and not across individuals. We also control for a large set of variables aimed at reducing the possibility of time-variant factors affecting both volunteering and earnings. This is the standard set by the best of the previous studies on this topic. As noted earlier, an even better approach would be to use an Instrumental Variables procedure, which would correct for the possibility that a change in earnings induces a change in volunteering status. Unfortunately, a plausible instrumental variable that affects a change in earnings only through a change in volunteering status is difficult to find in this context.

The measurement of volunteering in the BHPS is rather limited. The survey question on volunteer activities is included in a long list of other leisure time pursuits. No follow up questions are asked to jog the memory. No prompts are given as to the kind of organizations for which a person might volunteer. It is therefore possible that volunteering is under-reported in the BHPS (Staetsky and Mohan 2011). Under- or over-reporting volunteer work does not occur at random and is likely to be influenced by matters such as social class, with working class people perhaps less likely to think of the help they provide to others as volunteer work. This would result in an over-estimate of the class differences in volunteering and its connection to the salariat and to people earning higher incomes.

It makes sense to expect that the benefits of volunteer work depend on how much time people spend on it. Because the BHPS asks respondents how often they volunteered in the past twelve months in ancillary analyses we constructed dummy variables to identify those who volunteered at least once a week, at least once a month, or at least several times a year. The results were clear. First, there are no findings where the salariat interaction term is insignificant and the other interaction terms are significant. Second, the interaction coefficient for the salariat is always larger than for the other two classes. Third, the chances of the salariat interaction coefficient being significant increases as the definition of volunteer activity is relaxed to include less frequent activities. Fourth, when statistically significant, the magnitude of the coefficient for the interaction between volunteering and salariat workers increases as the definition of volunteering

is relaxed. The conclusion is that frequency of volunteering makes no difference to the moderating effects of social class.

One explanation for why more frequent volunteering has no effect on moderation is cell-sizes. Only five percent of the BHPS respondents volunteered once a week, compared to twenty percent who volunteered less frequently during the year. Moreover, there is considerable movement between the various volunteering frequencies across waves which decreases even more the robustness of the results: only 37% of individuals who volunteered at the highest frequency did so in the subsequent wave. This is probably why it is common practice in the literature to use a dummy variable (Baert and Vujić 2018; Day and Devlin, 1998; Proteau and Wolff, 2006).

Although we have focused on the employment situation as a moderator this is not the only possible reason why class might moderate the effect of volunteering. First, middle and upper class volunteers are more likely to select into or be selected for volunteer assignments, such as serving on a committee or governing board, that generate assets of more value in the labour market. As with paid jobs, volunteer tasks are distinguished according to their rank, as measured by criteria such as power, prestige, autonomy and agreeableness (Author A, 2008). For example, in the United Kingdom, professionals and managers who volunteer are less likely to engage in tasks such as food preparation and more likely to give presentations, offer advice, serve on a committee, or help with administration (Goddard, 1994). Middle and upper class volunteers also tend to avoid "hands on" volunteer work such as providing services directly to the needy, focusing instead on making these services possible for others to provide by organizing and supervising fund-raising efforts and soliciting government agencies, businesses, and philanthropic organizations for help. At the other end of the scale, craft workers and operatives are more likely to do the manual, routine and relatively unskilled work of maintenance, helping out at events, providing care or transportation, or coaching youth teams (Author C, 2007). Occupational status is also positively related to the *number* of tasks performed, especially in secular organizations, increasing the chances of generating capital (Author A, 2008).

Second, class determines which kinds of organizations people volunteer for. It is possible that working class people are more disposed to volunteer for organizations that provide little or no useful skills, social contacts, or that send the wrong signals to employers (Qvist and Munk,

2017). They acquire less capital because of their choice of volunteer work. Day and Devlin (1998), for example, find that volunteering for a religious organization has a negative effect on earnings. This would imply that moderation has little or nothing to do with employment contracts and more to do with differences in the types of volunteer work in which employees engage. Unfortunately, the BHPS does not give respondents a list of organizations or causes for which they might have volunteered (political, religious, recreational) nor does it ask about specific tasks performed (e.g. coaching, tutoring, and secretarial).

Finally, as noted in the literature review, the influence of volunteering on earnings is moderated by factors other than social class. Pursuing this topic further would entail the analysis of some interesting three-way interactions. We tested a gender moderation hypothesis using the BHPS panel data looking first at whether men or women benefitted more from volunteer work. The interaction coefficients were insignificant. Work experience has also been shown to be a moderator (Qvist and Munk 2018). We control for potential work experience but did not test for moderation because the BHPS measure is unsatisfactory. Qvist and Munk (2018) have data from Danish administrative registers covering the entire work history of respondents in the panel study. For its part, the BHPS defines work experience as the difference between the current year and the first year labour force status was recorded *in the panel study*. The average years of work experience in the Danish study is 14.26 and in the BHPS the median is three years.

We focus in this study on the contrast between the salariat and the working class. We exclude the self-employed because their inclusion upsets the logic of the comparison between different employees. As a robustness test, we explored the effects of including self-employed as a separate class category using logistic regression and manual workers as the base category. Self-employed workers have higher earnings than manual workers, whether logged or actual income, when the unemployed are included in the sample. They earn less money than manual workers, by either measure, when only employed make up the sample. There is a significant effect for the interaction with volunteering (negative) for both income measures but only in the whole sample (i.e. where the unemployed are included). As far as the interactions with other class groups are concerned, the inclusion of the self-employed in the model leaves the original results unchanged in the case of the whole sample and in the employed-only sample where income is measured in pounds sterling. [The original class interactions for logged income lose significance whether it be the whole sample or employed only.]

As a second robustness check we experiment with reintroducing individuals who work extreme hours (les than 5 or over seventy hours per week). The original findings remain intact with one exception. The interaction terms for the employed-only sample where income is logged are no longer significant. Given that a very small fraction of the BHPS sample works extreme hours these results are not too concerning because they suggest that the moderation of the relation of volunteering to income by social class applies to the vast majority of the adult population.

Conclusion

In all likelihood volunteer work will become a more important resource for employees seeking a raise in pay or a better paying job than it is today not least because information about workers' personal lives have become more transparent in the age of social media, opening a window for activities such as volunteer work to be observed and evaluated by coworkers and supervisors (Rodell & Lynch, 2016). With this in mind, there are other topics associated with the relation between volunteering and earnings that could be investigated further. First, there is evidence that volunteer work in secondary school and college positively affects the status and earnings of one's first job, which in turn has beneficial consequences for wages and salaries later in life (Astin et al., 1998; Ballard et al., 2018). This suggests a narrower focus on the earlier stages of the life course might be revealing. Second, there is evidence that volunteer work helps people return to work more rapidly after an interruption (e.g. for raising children) or after a spell of unemployment (Konstam et al., 2015). In either case, volunteer work should result in higher earnings because it eases movement into the labour market.

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Table 1: Average Income by Characteristics

	Income if var=0	Income if var=1	Diff
			(2) - (1)
	(1)	(2)	(3)
Volunteering	9.841	9.930	0.088***
Salariat Workers	9.587	10.23	0.640***
Intermediate Workers	10.03	9.534	-0.495***
Manual Workers	9.938	9.658	-0.280***
Full time Work	9.028	10.05	1.026***
Married	9.824	9.903	0.079***
Children	9.873	9.869	-0.005
Child 0-2	9.864	9.972	0.108***
Child 3-4	9.870	9.896	0.026
Child 5-11	9.883	9.814	-0.069***
Child 12-18	9.880	9.809	-0.071***
Higher Degree	9.849	10.46	0.609***
First Degree	9.700	10.03	0.331***
High School	9.942	9.704	-0.239***
Second. School	9.887	9.619	-0.268***
Other Qualification	9.915	9.438	-.467***
Still in School	9.872	9.215	-0.657***
Non-white	9.926	9.870	-0.056*
Male	9.604	10.14	0.540***
Private Firm	9.890	9.862	-0.028**
Central Gov	9.863	10.04	0.175***
Local Gov	9.874	9.858	-0.016
NHS/High Edu	9.869	9.900	0.031*
Nat. Industry	9.870	10.08	0.214***
Non-profit	9.874	9.796	-0.079***
Other Industry	9.871	10.07	0.194**
Union	9.799	9.936	0.138***
Experience>Average	9.862	9.891	0.029***

The sample includes all respondents aged 15-65 between the years 1996 and 2008 and the data is pooled. Volunteering data are available every other year starting in 1996. Earnings are logarithms of constant 2017 pounds. Asterisks represent significance levels: * $p<0.05$, ** $p<0.01$, *** $p<0.001$ on two-sided tests.

Table 2: FE Estimates of Logged Income

	Whole Sample		Employed Only	
		Interaction		Interaction
	(1)	(2)	(3)	(4)
Volunteering	0.031*** (0.009)	-0.063*** (0.018)	0.043*** (0.009)	0.023 (0.017)
Salariat Workers	9.082*** (0.023)	9.028*** (0.024)	0.133*** (0.013)	0.120*** (0.014)
Intermediate Workers	8.940*** (0.022)	8.911*** (0.023)	0.039*** (0.011)	0.040** (0.012)
Manual Workers	8.888*** (0.023)	8.856*** (0.024)	-	-
a. Vol*Salariat	-	0.139*** (0.021)	-	0 .038* (0.020)
b. Vol*Intermediate	-	0.078*** (0.023)	-	-0.002 (0.020)
c. Vol*Manual	-	0.089*** (0.025)	-	-
F-Test a=b	-	16.05***	-	-
F-Test a=c		6.42*		
F-Test b=c		0.37		
Experience	0.007*** (0.001)	0.007*** (0.001)	0.009*** (0.001)	0.009*** (0.001)
Full-time	0.512*** (0.014)	0.513*** (0.014)	0.420*** (0.015)	0.420*** (0.015)
Married	0.040*** (0.010)	0.040*** (0.010)	0.037*** (0.011)	0.037*** (0.011)
N. Children	-0.015** (0.006)	-0.016** (0.006)	-0.020** (0.007)	-0.020** (0.007)
Higher Degree	0.227** (0.072)	0.246** (0.068)	0.282*** (0.047)	0.280*** (0.046)
First Degree	0.071 (0.061)	0.094 (0.057)	0.146*** (0.023)	0.148*** (0.022)
High School	-0.014 (0.061)	-0.008 (0.057)	0.060** (0.022)	0.063** (0.022)
Second. School	-0.017 (0.069)	-0.003 (0.065)	0.087* (0.043)	0.085* (0.043)
Other Qualification	-0.032 (0.065)	0.051 (0.061)	0.101** (0.034)	0.102** (0.034)
R	0.980	0.980	0.245	0.246
NT	32,021	32,021	26,193	26,193

Note: Standard errors in parentheses. Standard errors clustered at the individual level. Still in school is used as base category for education. Part-time labour is not reported as it is used as base category for the full-time dummy. Other regressors include working for a private firm, for the central government, for the local government, for NHS/higher education, nationalized industry, nonprofit organization, dummies for respondent's age, age of respondent's children, dummy for union at workplace, and the year of survey. Asterisks represent significance levels: * $p<0.05$, ** $p<0.01$, *** $p<0.001$ on two-sided tests.

Table 3: FE Estimates of Actual Income

	Whole Sample		Employed Only	
		Interaction		Interaction
	(1)	(2)	(3)	(4)
Volunteering	1200.6***	-1418.0***	1606.1***	493.5
	(308.1)	(310.3)	(371.6)	(382.2)
Salariat Workers	11632.2***	10014.1***	2115.5***	1392.1***
	(358.4)	(402.4)	(267.7)	(319.9)
Intermediate Workers	9226.4***	8481.8***	494.3*	497.2*
	(305.8)	(312.9)	(206.3)	(223.1)
Manual Workers	8525.3***	7776.5***	-	-
	(308.4)	(322.1)		
a. Vol*Salariat	-	4125.0***	-	2074.2***
		(504.0)		(545.1)
b. Vol*Intermediate	-	1980.0***	-	106.7
		(358.8)		(545.1)
c. Vol*Manual	-	1984.4***	-	-
		(413.2)		
F-Test a=b	-	26.23***	-	-
F-Test a=c		17.47***		
F-Test b=c		0.00		
Experience	138.4***	137.1***	171.5***	170.3***
	(12.74)	(12.73)	(16.64)	(16.66)
Full-time	6781.2***	6792.0***	5855.4***	5864.4***
	(242.2)	(242.8)	(269.9)	(269.9)
Married	1318.6***	1296.8***	1373.3***	1352.3***
	(284.2)	(284.1)	(327.4)	(327.7)
N. Children	208.3	188.6	255.7	248.6
	(167.2)	(166.3)	(219.6)	(219.1)
Higher Degree	6106.4**	6623.2***	8804.8***	8751.5***
	(1865.0)	(1764.9)	(1560.8)	(1502.9)
First Degree	958.7	1632.0	3441.4***	3591.1***
	(1509.4)	(1399.4)	(812.4)	(730.6)
High School	34.38	693.5	2617.2**	2756.8***
	(1507.2)	(1398.2)	(800.3)	(718.3)
Second. School	967.4	1347.6	3220.8**	3122.5**
	(1590.1)	(1482.9)	(1024.0)	(954.4)
Other Qualification	1142.6	1682.2	3539.4***	3591.7***
	(1551.4)	(1443.8)	(924.7)	(853.5)
R	0.201	0.205	0.097	0.098
NT	32,021	32,021	26,193	26,193

Note: Standard errors in parentheses. Standard errors clustered at the individual level. Still in school is used as base category for education. Part-time labour is not reported as it is used as base category for the full-time dummy. Other regressors include working for a private firm, for the central government, for the local government, for NHS/higher education, nationalized industry, nonprofit organization, dummies for respondent's age, age of respondent's children, dummy for union at workplace, and year of survey. Asterisks represent significance levels: * $p<0.05$, ** $p<0.01$, *** $p<0.001$ on two-sided tests.

[i]Only a small fraction of the BHPS sample is affected by the restriction on extreme working hours. Another reason for this restriction is that the number of hours worked tends to be highly correlated with class: most of the employees working more than seventy hours a week are members of the salariat class, while all of the sixteen person-year observations reporting working less than 5 hours a week are manual workers.