Beyond the Ideal: Unravelling the complexities of overqualification, employee volunteering, and job satisfaction

Abstract

Purpose: This article examines the relationships between objective overqualification, volunteering as an extra-work activity, and job satisfaction.

Methodology: The study draws on a vast secondary sample of 20,686 British employees across four waves covering the period 2009 to 2017. The bivariate ordered probit estimate was used to test the study hypotheses in bioprobit procedure in STATA.

Findings: Our study unravels compelling insights. Overqualified employees experience lower job satisfaction and engage more in volunteering activities. The results emphasised that voluntary work allows the utilisation of skills and fulfils basic psychological needs, leading to enhanced general well-being and higher job satisfaction.

Practical implications: Overqualified employees, by actively engaging in volunteering, not only make valuable contributions to society but also experience positive spillover effects that significantly influence their workplace attitudes and behaviours. This underscores the potential for promoting volunteering as an effective means to mitigate the private and social of overqualification.

Originality: This study provides valuable insights into the role of overqualification, as well as resulting job dissatisfaction, in shaping volunteering decisions. This insight contributes to the overqualification literature and strengthens our understanding of volunteering as an important mechanism in the relationship between overqualification and job satisfaction.

Keywords: overqualification, volunteering, job satisfaction.

Introduction

Extensive research into the antecedents of workplace well-being consistently underscores that employees who use their skills in their roles entirely feel proud, engaged, and accomplished (e.g., Cullinane et al., 2017; Van den Broeck et al., 2015). Despite concerted efforts by employers to ensure alignment between job requirements and employees' abilities and by job applicants to leverage their skills optimally, situations persist where employees perceive themselves as overqualified. Overqualification emerges when employees possess qualifications—comprising skills, knowledge, and abilities—that are neither required by nor utilised on the job (Erdogan et al., 2011). Due to changes in both the composition of the workforce and the economy, overqualification is increasingly common (Erdogan et al., 2011; Lee et al., 2021; Yu et al., 2021). To put such commonality into perspective, nearly one-quarter of the UK workforce is overqualified (Holmes and Mayhew, 2015). In the US, the number of tertiary graduates entering the workforce has been increasing steadily since 1997 at a rate of 4.5% a year, far exceeding the number of posts needing a college education (Rose, 2017). As many as 48% of graduates are taking jobs that do not require high school diplomas, let alone a university degree (Vedder et al., 2013). Indeed, concerns regarding overqualification have evolved into a worldwide phenomenon (Büchel and Mertens, 2004; Liu et al., 2015).

Overqualification is generally viewed as an adverse employment situation and may serve as a barrier to engagement and retention (Erdogan and Bauer, 2021). This perception is substantiated by a meta-analysis indicating that overqualification is associated negatively with job satisfaction, organisational commitment, and psychological well-being, while positively related to turnover intentions, job search behaviours, and counterproductive work behaviours (Harari et al., 2017). At the same time, a growing body of evidence suggests that in specific circumstances,

overqualification might lead to favourable outcomes. For example, research has shown that overqualified individuals may engage in proactive behaviours (Zhang et al., 2016), demonstrate interpersonal citizenship behaviours (Zhang et al., 2022), and exhibit enhanced creativity (Lin et al., 2017). These findings highlight the dual nature of overqualification, where it can both discourage employees—pushing them toward counterproductive behaviours and high turnover intentions—while, in other cases, motivating them to engage in positive workplace behaviours and leverage their creative capabilities.

Despite this extensive focus on overqualification within traditional work settings, there remains a significant gap in understanding how overqualification manifests outside of work. Specifically, the influence of overqualification on employees' engagement in activities beyond their paid employment remains relatively unexplored. Recently, however, scholars have increasingly recognised that overqualified employees, limited in their capacity to fully utilise their skills within their roles, often seek fulfilment in non-work domains (Booth et al., 2009; Rodell, 2013). This pursuit of alternative outlets is thought to satisfy key psychological needs, such as a sense of meaningfulness, autonomy, competence, and connectedness with others (Heine et al., 2006; Ryan & Deci, 2017). Understanding these dynamics not only enriches our knowledge of overqualification's broader impacts but also opens new avenues for research on the potential benefits of engaging overqualified individuals in non-job-related activities.

This article contributes to the understanding of overqualification by examining its impact on a specific form of extra work activity: employees' community engagement in the form of volunteering. Volunteering can be defined as "giving time or skills during a planned activity for a volunteer group or organisation (e.g., charitable groups, nonprofit groups)"(Rodell, 2013, p. 1274). Overqualified employees often experience limited opportunities to use their skills, leading to job

dissatisfaction. In such circumstances, a natural course of action is to satisfy the psychological needs by directing their energies toward opportunities for non-job-related activities, and volunteering presents such an opportunity. Although, admittedly, voluntary work can be mundane. However, in most circumstances, it allows the overqualified to use a broader range of skills, to fulfil psychological needs, and to boost their general well-being (Booth et al., 2009; Mojza et al., 2011; Peloza and Hassay, 2006; Rodell et al., 2016), which has a positive spillover effect on job satisfaction despite the overqualification. In this sense, volunteering may serve as a valuable outlet, mediating the relationship between overqualification and job satisfaction, allowing overqualified employees to offset the negative effects of underutilisation in their jobs and find a renewed sense of purpose and engagement.

This study makes two key contributions to the literature. Firstly, it advances the understanding of the consequences of overqualification by introducing volunteering as a potential extra work activity, addressing a previous research gap. While prior studies have identified various antecedents of employee volunteering (Howard and Serviss, 2022; Hu et al., 2016; Rodell et al., 2016), the connection between overqualification and volunteering has received limited attention, warranting a more comprehensive investigation. Secondly, it responds to the call for further research on the relationship between overqualification and job satisfaction (Arvan et al., 2019). Specifically, it explores how overqualification-driven volunteering involvement can have a positive impact on overqualified employees' job satisfaction. We elaborate on our contribution in the discussion section.

Theoretical Background and Hypotheses Development

Overqualification is a specific employment condition that arises when an employee's qualifications, such as education or experience, exceed the requirements of their job and are

underutilised (Erdogan et al., 2011). Generally perceived as an undesirable situation, overqualification can hinder employment opportunities and impact employees' attitudes, behaviours, and interpersonal relationships (Erdogan & Bauer, 2021). Certain aspects of overqualification can be measured objectively, for instance, by comparing the required and possessed levels of education or experience for a role (Luksyte et al., 2011; McKee-Ryan & Harvey, 2011). The dominant approach in the literature treats overqualification as a symptom of labour market mismatches between employee skills and job demands (Alba-Ramirez, 1993). Verhaest and Omey (2009) argue that overqualification is often involuntary, particularly during economic downturns when individuals may be compelled to accept jobs requiring lower qualifications than they possess. Research further substantiates this view, revealing that overqualified job applicants often face neglect from recruiters, leading to status deprivation and, subsequently, lower levels of job satisfaction (Kulkarni et al., 2015). Overqualification, therefore, represents a suboptimal employment state, arising when labour market sorting mechanisms fail to efficiently match workers to suitable jobs. This inefficient sorting contributes to poor-quality employment matches, resulting in widespread workforce dissatisfaction.

Human beings possess inherent psychological needs, such as autonomy and competence, crucial for their psychological growth and well-being (Ryan, 1995). From a needs-supplies fit perspective, employees assess the extent to which their job provides extrinsic and intrinsic resources, comparing the value of these resources to their desired values shaped by psychological needs (Cable and Edwards, 2004). Dissatisfaction arises when perceived values fall short of desired ones. Previous research confirms the negative association between overqualification and internal/external resources related to psychological need fulfilment and satisfaction. Overqualified employees experience reduced job autonomy and variety (Lee, 2005), cynicism about job

meaningfulness (Luksyte et al., 2011), lower salaries (Harari et al., 2017), and limited growth opportunities (Johnson and Johnson, 1999). This evidence highlights that overqualified employees perceive inadequate resources, leading to job dissatisfaction. Moreover, from a demands-abilities-fit perspective, overqualified employees possess a repertoire of skills, knowledge, and abilities (Erdogan and Bauer, 2009). Dissatisfaction arises when their skills, knowledge, and abilities exceed job demands, leaving them feeling unrecognised (Gabriel et al., 2014). In essence, both needs-supplies fit and demands-abilities fit underscore that overqualified employees may face job dissatisfaction due to unfulfillment of their psychological needs and acknowledgement of their skills, knowledge, and abilities potential, respectively. Therefore, this article proposes the following hypothesis:

Hypothesis 1: *Overqualification negatively relates to job satisfaction.*

The undesirable consequences of overqualification are likely to spur employees into action to change their current work circumstances (Hamstra et al., 2023). Two main explanations shed light on this phenomenon. Viewed through the lens of needs-supplies fit, overqualified employees perceive their job supplies do not adequately fulfil their psychological needs, encompassing aspects like autonomy, competence, relatedness, and meaningfulness (Cable and Edwards, 2004). To cope with this needs-supplies misfit, overqualified employees may endeavour to satisfy their unmet psychological needs by seeking compensatory intrinsic rewards in other aspects of their lives. This notion aligns with the theory of whether volunteering compensates for unsatisfied psychological needs at work (Clary and Snyder, 1999). A strand of this literature centred around the Meaning Maintenance Model (Heine et al., 2006), proposing that individuals, when experiencing a lack of meaning in one domain of life, seek to reaffirm meaning in other domains. Rodell (2013) puts this explanation into a sharper focus by claiming that employees respond to a

sense of *wanderlust*, a wish to wander or seek new experiences because something is missing at their current job. Using *wanderlust* as an explanatory mechanism between work meaningfulness and volunteering, Rodell (2013) finds that a lack of meaning at work underpins volunteering decisions. This viewpoint suggests that employees who experience low job satisfaction and perceive their roles as devoid of meaning might actively seek fulfilment and significance through volunteer engagements. Unexpectedly, job satisfaction can act as a catalyst, propelling individuals towards volunteering to find purpose beyond their dissatisfying work environment. Through such volunteering efforts, individuals not only address their discontent but also experience a rejuvenated sense of empowerment and personal agency, thereby contributing to the broader community. In this sense, job satisfaction can potentially be an intermediary in the relationship between overqualification and volunteering.

In addition, from a demands-abilities-fit perspective, overqualified employees perceive their abilities surpass the demands of their jobs (Arvan et al., 2019). As a result of this misfit, they are prone to experience a sense of deprivation stemming from a dearth of challenges, opportunities, and responsibilities within their jobs (Feldman et al., 2002). Overqualified employees may opt to modify either of the two misfit components to address such misfits. Given that it is unlikely to reduce one's abilities developed through education, knowledge, and skills, it is more likely that overqualified employees either engage in task crafting to restore their demands-abilities-fit without changing their job or find a more challenging employment opportunities (Lin et al., 2017; Zhang et al., 2021). Volunteering presents an appealing avenue for overqualified employees to craft work and life beyond the confines of their work domain (Kujanpää et al., 2022). Taken together, it is expected that overqualified employees volunteer more than the non-overqualified:

Hypothesis 2: Overqualification positively relates to volunteering.

The positive association between overqualification and job satisfaction is underpinned by the intertwined nature of volunteering and job satisfaction. In essence, emotions or behaviours outside of the work domain influence emotions or behaviours at work (Thompson et al., 2020). This viewpoint is substantiated by research on the spillover effects between life and work domains (Pierce et al., 2016; Takeuchi et al., 2002). For instance, Judge and Watanabe's (1993) analysis of the Quality of Employment Survey in the US highlights a strong correlation between life and job satisfaction, indicating the non-segmented nature of these domains. Similarly, Georgellis and Lange's (2012) research further supports this non-segmentation hypothesis with European Values Survey (EVS) data. In this context, the absence of strict boundaries between life and work domains suggests that the well-being benefits gained from volunteering are likely to spill over to the workplace, positively influencing attitudes, behaviours, and job satisfaction.

The evidence supporting the notion that volunteering enhances individuals' general well-being is robust (Mellor et al., 2009; Thoits and Hewitt, 2001). Borgonovi (2008), using data from the Social Capital Community Benchmark Survey (SCCBS) in the US, affirms that volunteers experience heightened happiness and improved health. Similarly, Meier and Stutzer (2008) argue that voluntary work not only leads to increased life satisfaction but also helps individuals fulfil social needs through socialising with like-minded individuals. Binder and Freytag (2013), utilising British Household Panel Survey (BHPS) data, find that volunteering exerts a strong positive influence on life satisfaction. Moreover, findings from Gimenez-Nadal and Molina's (2015) analysis of the 2010 Well-Being Module of the American Time Use Survey reveal that daytime volunteers report higher daily happiness levels compared to non-volunteers, with volunteering ranking among the most enjoyable activities.

While there is ample research on the positive effects of volunteering on general well-being,

there remains a gap in understanding whether general well-being gains from volunteering can spill over to influence behaviours and well-being at work or vice versa. Under the premise that life and work domains are non-segmented, a general well-being boost experienced by volunteers is likely to positively affect their motivation and satisfaction at work. This perspective is reinforced by Rodell (2013), who demonstrates that volunteers tend to become more absorbed in their current roles, leading to enhanced performance. These findings collectively underscore the strong interrelationship between volunteering and job satisfaction, suggesting that both variables are likely endogenous (i.e., changes in one variable can affect the values of another variable) and should be analysed concurrently to gain a comprehensive understanding of their dynamics.

Hypothesis 3: Volunteering and job satisfaction are endogenous, overqualification influences both volunteering and job satisfaction concurrently.

Method

The data are from the first nine waves of the Understanding Society, UK Household Longitudinal Study (UKHLS), covering the period 2009 to 2017. The UKHLS collects information yearly via face-to-face interviews or self-completed questionnaires for individuals in roughly 40,000 households across the UK. For a comprehensive description of the study's design, methodology, and data collection protocols, please refer to Knies (2018). The survey records respondents' socio-economic characteristics, including job satisfaction and volunteering. However, volunteering data is only available in waves 2, 4, 6, and 8 (corresponding to 2009/2010, 2011/2012, 2013/2014 and 2015/2016). Excluding missing values and restricting the sample to employees between 18 and 65 years old, yields 21,566 person-year observations for 8,976 men and 28,345 person-year observations for 11,713 women.

Analytic technique

The modelling strategy is to estimate a bivariate ordered probit model, of the following

form:

$$(Volunteering)_i = a_1 + \beta_1(Overqualified)_i + X_i'\theta_1 + u_{1i} \quad (1)$$

$$(Job\ satisfaction)_i = a_2 + \beta_2(Overqualified)_i + Z_i'\theta_2 + u_{2i}, \quad (2)$$

where X_i is a vector of independent variables influencing decisions to volunteer; Z_i is a vector of factors affecting job satisfaction; u_{1i} and u_{2i} are error terms distributed normally. The model allows for job satisfaction and volunteering decisions to be determined jointly and for unobserved heterogeneity to influence both variables. The estimation uses the *bioprobit* procedure in STATA 15.1 (Sajaia, 2009).

Measures

Job satisfaction: Job satisfaction is widely accepted as a metric for capturing the overall employment match quality (Muñoz de Bustillo Llorente and Fernández Macías, 2005). The UKHLS measures job satisfaction on a Likert scale ranging from 1 (complete dissatisfaction) to 7 (complete satisfaction), with respondents answering the question: "*All things considered, which number best describes how satisfied or dissatisfied you are with your present job overall?*".

Overqualification: This is a dichotomous variable with value 1 for the overqualified and 0 otherwise. This is an objective overqualification index. To measure overqualification objectively, previous work compares the required educational qualifications for a job or an occupation with those that employees hold (Flisi et al., 2017; Pouliakas, 2013). The analysis here follows Pouliakas (2013) to create an index, which classifies as overqualified those with the highest educational qualification above the median educational qualification of all employees in the same three-digit occupational classification. An underlying assumption is that the median qualification is a good proxy for the needed occupational qualification level. The UKHLS reports the following qualifications: Degree or other higher degree, A-level, GCSE-level, other qualification, no

qualification. Therefore, when most employees within a three-digit occupational category hold an A-level qualification, then anyone with a degree is overqualified. Similarly, when most have a GCSE qualification, anyone with an A-level qualification or a degree is overqualified.

Volunteering: The measure of volunteering in the UKHLS is consistent with Rodell's (2013) definition. It is an ordinal variable capturing the frequency of respondents' volunteering activity in the last twelve months. Specifically, respondents in the UKHLS are asked whether '*in the last 12 months, they have given any unpaid help or worked as a volunteer for any local, national or international organisation or charity*''. Those who said Yes were then asked a follow-up question: '*including any time spent at home or elsewhere, about how often over the last 12 months have you generally done something to help any of these organisations?*''. The responses to the second question are on an ordinal scale from 1 to 9, where 1 corresponds to '*on 3 or more days a week*', and 9 to '*helped or worked on a seasonal basis*'. The intermediate values are 2 '*Twice a week*', 3 '*Once a week*', 4 '*Once a fortnight*', 5 '*At least once a month*', 6 '*Quite often but not regularly*', 7 '*Just a few times*', and 8 '*One-off activity*'.

Other controls: Besides overqualification, the list of correlates includes standard controls including education, occupation, age, marital status, children, race, health, earnings, work hours, managerial responsibilities, union membership, sector, and firm size. These have been used in previous studies as they relate to either job satisfaction (e.g., Clark, 1997; Georgellis et al., 2012; Wang et al., 2012) or overqualification (Erdogan & Bauer, 2021; Harari et al., 2017). We, in addition, include personality as personality traits are associated with heightened feelings of overqualification (Harari et al., 2017; Maynard et al., 2015).

Results

Table 1 displays the distribution of job satisfaction by gender and overqualification. The

mean satisfaction score is 5.199 and 5.326 for men and women respectively. Nearly 47 per cent of overqualified men are very satisfied or completely satisfied, reporting scores 6 or 7. In contrast, 53.5 per cent of men who are not overqualified are very or completely satisfied with their jobs. Overqualified men's mean satisfaction score is 5.076, which is lower than the mean satisfaction score of 5.230 for non-overqualified men. A simple t-test shows the mean satisfaction difference between qualified and non-qualified men is statistically significant. A similar picture emerges for women. About 54 per cent of overqualified women report high satisfaction scores on the Likert scale. The matching proportion for non-overqualified women is 58.1 per cent, while mean satisfaction is 5.238 and 5.347 for overqualified and non-overqualified women respectively.

[Insert TABLE 1 here]

Table 2 displays the distribution of volunteering frequency. Values range from 0, for those who do not volunteer at all, to a maximum value 9, for those who volunteer three or more days per week. Just over 80 per cent of all observations, over the four waves, are associated with no volunteering. However, some volunteering frequency differences by overqualification appear at the upper end of the distribution. For instance, the proportion of overqualified men who volunteer once a week or more is 7.3 per cent. The corresponding proportion for non-overqualified men is 6.4 per cent. Similarly, the proportion of overqualified women volunteering at least once a week is 9.5 percent and the equivalent percentage for non-overqualified women is 6.8. These numbers suggest that overqualification is positively correlated with volunteering.

[Insert TABLE 2 here]

Table 3 reports estimated coefficients of the ordered probit (column 1) and bivariate ordered probit (columns 2 and 3) for men. In the first column, the overqualification coefficient is negative and statistically significant, suggesting that those with educational qualifications

exceeding the median qualification in their occupation are less satisfied with their jobs. On the other hand, the coefficient of volunteering implies a positive association between volunteering frequency and job satisfaction. Coefficients of other controls have the expected signs, broadly consistent with past estimates. Age exhibits a familiar U-shape with satisfaction. Noticeably, poor health has the most substantial negative impact on satisfaction. Commuting, work hours, paid hourly, union membership, and private-sector employment all exert a negative influence. Employees in high-skill occupations report lower satisfaction than those in routine, low-skill occupations. Higher pay, managerial responsibilities, and working in a small firm boost satisfaction. The same applies to positive personality traits, such as agreeableness, conscientiousness, and extraversion. By contrast, men who score higher on neuroticism report low satisfaction scores.

[Insert TABLE 3 here]

Turning to the bivariate ordered probit model; the *Rho* coefficient is negative and statistically significant. This implies that both job satisfaction and volunteering are endogenously determined as unobserved heterogeneity influencing volunteering frequency also influences job satisfaction. The *Wald Chi*^{2} test rejects the hypothesis of independence of the two equations, further supporting the bivariate ordered probit model as an appropriate specification. The bivariate ordered probit results reaffirm the negative impact of overqualification on job satisfaction. In addition, the bivariate model elucidates the impact of overqualification on volunteering, which is treated as endogenous. In the last column of Table 3, overqualification attracts a positive coefficient, suggesting overqualified employees undertake voluntary work more often than others. The effects of other controls on satisfaction are broadly similar to those from the single equation ordered probit estimation. The main difference is that work hours, having managerial

responsibilities or being a private employee are no longer statistically significant. However, these controls now have a significant impact on volunteering frequency. Column 3 shows that more prolonged work hours impact negatively on volunteering. The same is true for private employment. Having managerial responsibilities increases voluntary work frequency. Volunteering frequency is also higher for those in managerial and professional occupations. The results further reveal a positive correlation between marriage and volunteering. On the role of personality, it appears that traits usually associated with individuals' prosocial predisposition, such as agreeableness, extraversion, and openness to experience, are positively correlated with voluntary work frequency. Finally, religion attracts a negative coefficient. Individuals who report a religious affiliation are less likely to volunteer compared to a reference group, that is respondents who self-declare themselves as atheists or refuse to state their religion.

The analogous results for women appear in Table 4. The single equation ordered probit model shows that overqualification reduces job satisfaction, while volunteering has no statistically significant effect. As with men, both *Rho* and *Wald Chi*^{2} confirm the need to estimate the two equations jointly. The bivariate ordered probit estimates for women reveal no significant surprises. As expected, overqualification has a negative impact on job satisfaction. Comparing the estimated coefficient of -0.122 with the corresponding coefficient of -0.121 for men indicates a similarly strong negative impact of overqualification for women. Other job satisfaction correlates have the expected sign as for men, although noteworthy differences emerge. Unlike men, married women enjoy higher satisfaction. Moreover, women with a university degree report lower satisfaction. Turning attention to volunteering, overqualification attracts a positive coefficient, suggesting that overqualified women have a solid impetus to volunteer more often. Concerning other volunteering correlates, being white British or having managerial responsibilities are associated with more

frequent volunteer work. Women in higher-skilled occupations volunteer more in comparison to those in semi-routine and routine occupations (reference category). Working long hours, paid hourly, private employment, and union membership are negatively associated with volunteering. Women who are extroverts are more likely to volunteer frequently. Likewise, those who are open to experience volunteer more, which is not valid for those who are neurotic or conscientious.

[Insert TABLE 4 here]

To appreciate the practical significance of these results, Table 5 summarises the average predicted probabilities of overqualification and volunteering on job satisfaction. These probabilities are based on the bivariate ordered probit estimates of Tables 3 and 4. The top panel of Table 5 shows that overqualified men are 2 per cent less likely to be completely satisfied with their jobs than the non-overqualified. Similarly, they are about 2 per cent less likely to report a high satisfaction score of 6. To put these effects in perspective, their magnitude is comparable to the union membership effect. However, they are much smaller than the effect poor health has on job satisfaction, which is the strongest among the independent correlates. Comparing overqualification average probabilities for men to the equivalent probabilities for women (bottom panel) shows overqualified men are 3.7 less likely on average than women to be completely satisfied. Focusing on volunteering frequency, men who volunteer on 3 or more days per week have an average probability of 14.4 per cent to be completely satisfied with their job. For comparison, the corresponding probability for men with good health is about 13 per cent. Women who volunteer frequently enjoy an even higher average probability, about 18.1 per cent, of being completely satisfied with their jobs. Notably, this probability is higher than the corresponding probability for women who are union members or report good health.

[Insert TABLE 5 here]

Discussion

Most previous work on overqualification explores its negative impact on individual well-being and workplace behaviours almost exclusively within a firm-level setting. By contrast, there is little research on how overqualification influences behaviours in other life domains, including community engagement. This article fills this gap in the literature by examining how overqualification influences non-employer-sponsored voluntary work. The main argument, underpinning the empirical analysis, is that volunteering reflects a behavioural reaction to overqualification and job dissatisfaction. Voluntary work allows overqualified employees to use their skills and satisfy basic psychological needs. These positive outcomes boost general well-being, which has a favourable effect on job satisfaction. Deviating from previous job satisfaction and volunteering research, this article treats both variables as endogenous in a simultaneous equations system, with overqualification as the primary exogenous variable. After controlling for other factors that confound the relationship between overqualification, volunteering, and job satisfaction, the findings support the main hypotheses of this study. Overqualified employees are less satisfied with their jobs and volunteer more frequently. These findings underline the possibility that volunteering can lessen any harmful consequences of overqualification for employee well-being.

Theoretical implications

This study makes four specific and important contributions to literature. First, this article contributes to the growing body of research examining the outcomes of overqualification (Erdogan & Bauer, 2021; Harari et al., 2017). Specifically, it extends our understanding of overqualification's impact by introducing volunteering as a potential extra-work activity that

overqualified employees may pursue (Howard and Serviss, 2022; Hu et al., 2016; Rodell et al., 2016). While prior studies have explored various factors influencing employee volunteering—including individual characteristics such as education level, workplace attributes like job meaningfulness, and organisational factors such as support for volunteering (Howard and Serviss, 2022; Hu et al., 2016; Rodell et al., 2016)—the specific link between overqualification and volunteering has received limited attention. Notably, only Collins and Long (2015) have investigated this association, though their study was limited by a cross-sectional design and regional focus, which restricted the generalisability of their findings. This study builds on their work by offering a more comprehensive examination of how overqualification influences employees' decisions to volunteer, addressing both the unmet potential and job dissatisfaction that often accompany overqualification. Through this focus, this study adds valuable insights into how overqualification shapes employees' engagement in volunteering, contributing to a deeper understanding of its broader behavioural outcomes.

Second, this study responds to Arvan et al.'s (2019) call to explore the relationship between objective overqualification and job satisfaction, by examining how overqualification impacts job satisfaction with volunteering as a mediating factor. Overqualified employees often experience a lack of challenge and an inability to meet core psychological needs such as autonomy, competence, and relatedness (Ryan & Deci, 2017). In response, they may seek fulfilment through volunteering, a form of extra-role activity that allows them to utilise their skills, gain a sense of purpose, and foster meaningful connections (Rodell et al., 2016). Volunteering offers overqualified employees a valuable outlet to channel their unused skills and experience, contributing to enhanced well-being through a sense of purpose and contribution (Peloza & Hassay, 2006). This improved well-being can positively affect job satisfaction, as research shows that fulfilling psychological needs

outside of work often generates a “positive spillover” effect, improving overall life satisfaction and attitudes toward one’s job (Booth et al., 2009; Mojza et al., 2011). By highlighting this mechanism, the study not only expands the literature on overqualification and its effects but also advances our understanding of volunteering as a meaningful compensatory strategy that can mitigate the adverse impacts of overqualification on job satisfaction. This exploration of volunteering as a mediator deepens our comprehension of how unmet needs due to overqualification can be redirected into productive, fulfilling activities beyond the workplace, offering a new perspective on how individuals cope with misfit conditions in employment (Kulkarni et al., 2015).

Third, to deepen our understanding of the links between overqualification, volunteering, and job satisfaction, we examined key boundary conditions. Our analysis revealed that employees with educational levels above the median in their occupation report lower job satisfaction, consistent with research showing a negative relationship between higher education and job satisfaction (Clark et al., 1996). Age exhibited a U-shaped pattern, with middle-aged individuals being the least satisfied, as seen in previous studies (Clark et al., 1996). Additionally, married women reported higher job satisfaction compared to men, supporting Clark et al.'s (1996) findings that marriage generally boosts job satisfaction. Poor health had the strongest negative effect on job satisfaction, reinforcing evidence of a significant adverse link between health and job satisfaction (Clark et al., 1996). Consistent with prior research, factors such as longer commuting times (Stutzer & Frey, 2008), increased work hours (Judge et al., 2010), hourly pay (Judge et al., 2010), union membership (Laroche, 2017), and employment in the private sector (Wang et al., 2012) were all associated with lower job satisfaction.

Turning to volunteering, we found that marriage is positively correlated with volunteering,

consistent with Lup and Booth (2019), who reported that married individuals are more likely to volunteer. Volunteering frequency is also higher among those in managerial and professional occupations, again aligning with Lup and Booth's (2019) findings that these workers volunteer more often than those in lower-skilled roles. Longer work hours and employment in the private sector negatively impact volunteering, consistent with Lup and Booth (2019) and Piatak (2015) respectively, who found that public-sector employees volunteer more. Regarding personality, traits associated with prosocial behaviour—such as agreeableness, extraversion, and openness to experience—are positively correlated with volunteering frequency. This supports research by Binder and Freytag (2013), which identified agreeableness and extraversion as the traits most linked to volunteering. Finally, individuals with a religious affiliation are less likely to volunteer compared to atheists or those with no declared religion, aligning with Lim and MacGregor (2012), who found that local religious participation levels negatively influence volunteering among nonreligious individuals.

Fourth, this study makes two key methodological contributions. First, unlike many studies that rely on subjective self-reports to measure overqualification—where individuals indicate their perceived overqualification and job dissatisfaction (Daly et al., 2000)—we use objective measures. While objective methods are critiqued for comparing diverse roles with varying skill requirements, they avoid biases stemming from individual perceptions influenced by social comparison (Maltarich et al., 2011). Importantly, objective measures have shown positive correlations with subjective measures, supporting their validity (Arvan et al., 2019; McKee-Ryan et al., 2009). This strengthens the robustness of our findings relative to typical self-assessment approaches in overqualification literature. Second, much of the overqualification literature is based on cross-sectional data, which limits causal inferences (Liu and Wang, 2012). Our study employs a multi-

wave longitudinal survey, allowing us to better establish the direction of effects and capture the evolving relationships between objective overqualification, volunteering, and job satisfaction over time. This longitudinal approach offers a more reliable and comprehensive perspective on these dynamics.

Practical implications

These findings carry substantial policy and practical implications of utmost importance. Overqualified employees, by actively engaging in volunteering, not only make valuable contributions to society but also experience positive spillover effects that significantly influence their workplace attitudes and behaviours. This underscores the potential for promoting volunteering as an effective means to mitigate the social costs associated with overqualification, thus reinforcing the rationale for civic engagement initiatives. These initiatives can complement and enhance existing education and labour market policies aimed at addressing skills mismatches. Furthermore, organisations stand to benefit greatly from actively encouraging employee volunteering, recognising its potential to directly boost workplace engagement and performance, as emphasised by Rodell (2013). To optimise the impact of such initiatives, it is imperative to gain a more nuanced understanding of the specific types of volunteering activities that overqualified employees are most inclined to participate in, facilitating more targeted and effective engagement strategies.

Limitations and future research directions

A limitation of this study is that our analysis does not differentiate whether overqualified employees volunteer to enhance their skills or to fulfil specific psychological needs. Qualitative interviews could offer deeper insights into these motivations, as volunteering may not always be enjoyable or meet expectations—it can be mundane or fall short of employee goals. This study

assumes that volunteering is generally positive and skill-enhancing, with greater frequency being even more beneficial, which future research with more nuanced surveys and qualitative data should explore. Another promising direction for future work is examining cultural and societal differences in attitudes toward volunteering. While we controlled for individual characteristics like race and religion as proxies for cultural diversity, multi-country data could provide more granular insights. Cross-country comparisons that consider differences in educational and labour market institutions could further clarify how overqualification relates to voluntary work across contexts. Despite these limitations, this article provides a novel and nuanced perspective on the role of overqualification in fostering volunteering and job satisfaction, while accounting for endogeneity.

REFERENCES

Arvan, M. L., Pindek, S., Andel, S. A., & Spector, P. E. (2019). Too good for your job? Disentangling the relationships between objective overqualification, perceived overqualification, and job dissatisfaction. *Journal of Vocational Behavior*, *115*, 103323. https://doi.org/10.1016/j.jvb.2019.103323

Binder, M., & Freytag, A. (2013). Volunteering, subjective well-being and public policy. *Journal of Economic Psychology*, *34*, 97–119. https://doi.org/10.1016/j.joep.2012.11.008

Booth, J. E., Park, K. W., & Glomb, T. M. (2009). Employer-supported volunteering benefits: Gift exchange among employers, employees, and volunteer organizations. *Human Resource Management*, *48*(2), 227–249. https://doi.org/10.1002/hrm.20277

Borgonovi, F. (2008). Doing well by doing good. The relationship between formal volunteering and self-reported health and happiness. *Social Science & Medicine*, *66*(11), 2321–2334. https://doi.org/10.1016/j.socscimed.2008.01.011

Büchel, F., & Mertens, A. (2004). Overeducation, undereducation, and the theory of career

mobility. *Applied Economics*, *36*(8), 803–816. https://doi.org/10.1080/0003684042000229532

Cable, D. M., & Edwards, J. R. (2004). Complementary and Supplementary Fit: A Theoretical and Empirical Integration. *Journal of Applied Psychology*, *89*(5), 822–834. https://doi.org/10.1037/0021-9010.89.5.822

Clark, A. (1997). Job satisfaction and gender: Why are women so happy at work? *Labour Economics*, *4*(4), 341–372. https://doi.org/10.1016/S0927-5371(97)00010-9

Clark, A., Oswald, A., & Warr, P. (1996). Is job satisfaction U-shaped in age? *Journal of Occupational and Organizational Psychology*, *69*(1), 57–81. https://doi.org/10.1111/j.2044-8325.1996.tb00600.x

Clary, E. G., & Snyder, M. (1999). The Motivations to Volunteer. *Current Directions in Psychological Science*, *8*(5), 156–159. https://doi.org/10.1111/1467-8721.00037

Collins, B. K., & Long, L. (2015). The underemployment puzzle: the effects of overqualification and involuntary part-time status on volunteering. *Public Administration Quarterly*, *39*(4), 569–594. http://chain.kent.ac.uk/login?url=https://www.proquest.com/scholarly-journals/underemployment-puzzle-effects-overqualification/docview/1770072818/se-2?accountid=7408

Cullinane, S.-J., Bosak, J., Flood, P. C., & Demerouti, E. (2017). Job crafting for lean engagement: The interplay of day and job-level characteristics. *European Journal of Work and Organizational Psychology*, *26*(4), 541–554. https://doi.org/10.1080/1359432X.2017.1320280

Daly, M. C., Büchel, F., & Duncan, G. J. (2000). Premiums and penalties for surplus and deficit education. *Economics of Education Review*, *19*(2), 169–178. https://doi.org/10.1016/S0272-

7757(99)00041-2

Erdogan, B., & Bauer, T. N. (2009). Perceived overqualification and its outcomes: The moderating role of empowerment. *Journal of Applied Psychology*, *94*(2), 557–565. https://doi.org/10.1037/a0013528

Erdogan, B., & Bauer, T. N. (2021). Overqualification at Work: A Review and Synthesis of the Literature. *Annual Review of Organizational Psychology and Organizational Behavior*, *8*(1), 259–283. https://doi.org/10.1146/annurev-orgpsych-012420-055831

Erdogan, B., Bauer, T. N., Peiró, J. M., & Truxillo, D. M. (2011). Overqualified Employees: Making the Best of a Potentially Bad Situation for Individuals and Organizations. *Industrial and Organizational Psychology*, *4*(2), 215–232. https://doi.org/10.1111/j.1754-9434.2011.01330.x

Feldman, D. C., Leana, C. R., & Bolino, M. C. (2002). Underemployment and relative deprivation among re-employed executives. *Journal of Occupational and Organizational Psychology*, *75*(4), 453–471. https://doi.org/10.1348/096317902321119682

Flisi, S., Goglio, V., Meroni, E. C., Rodrigues, M., & Vera-Toscano, E. (2017). Measuring Occupational Mismatch: Overeducation and Overskill in Europe—Evidence from PIAAC. *Social Indicators Research*, *131*(3), 1211–1249. https://doi.org/10.1007/s11205-016-1292-7

Gabriel, A. S., Diefendorff, J. M., Chandler, M. M., Moran, C. M., & Greguras, G. J. (2014). The Dynamic Relationships of Work Affect and Job Satisfaction with Perceptions of Fit. *Personnel Psychology*, *67*(2), 389–420. https://doi.org/10.1111/peps.12042

Georgellis, Y., & Lange, T. (2012). Traditional versus Secular Values and the Job-Life Satisfaction Relationship Across Europe. *British Journal of Management*, *23*(4), 437–454. https://doi.org/10.1111/j.1467-8551.2011.00753.x

Georgellis, Y., Lange, T., & Tabvuma, V. (2012). The impact of life events on job satisfaction. *Journal of Vocational Behavior*, *80*(2), 464–473. https://doi.org/10.1016/j.jvb.2011.12.005

Gimenez-Nadal, J. I., & Molina, J. A. (2015). Voluntary Activities And Daily Happiness In The United States. *Economic Inquiry*, *53*(4), 1735–1750. https://doi.org/10.1111/ecin.12227

Hamstra, M. R. W., Schreurs, B., Maxim Laurijssen, L., & Marescaux, E. (2023). Who wants to leave when facing mass lay-off: a regulatory focus perspective on turnover intentions and mobility-oriented behavior. *Career Development International*, *28*(2), 145–159. https://doi.org/10.1108/CDI-11-2022-0315

Harari, M. B., Manapragada, A., & Viswesvaran, C. (2017). Who thinks they're a big fish in a small pond and why does it matter? A meta-analysis of perceived overqualification. *Journal of Vocational Behavior*, *102*, 28–47. https://doi.org/10.1016/j.jvb.2017.06.002

Heine, S. J., Proulx, T., & Vohs, K. D. (2006). The Meaning Maintenance Model: On the Coherence of Social Motivations. *Personality and Social Psychology Review*, *10*(2), 88–110. https://doi.org/10.1207/s15327957pspr1002_1

Holmes, C., & Mayhew, K. (2015). *Over-qualification and skills mismatch in the graduate labour market*.

Howard, M. C., & Serviss, E. (2022). The antecedents and outcomes of corporate volunteering: an employee- and organizational-level meta-analysis. *Journal of Managerial Psychology*, *37*(2), 93–110. https://doi.org/10.1108/JMP-01-2021-0018

Hu, J., Jiang, K., Mo, S., Chen, H., & Shi, J. (2016). The motivational antecedents and performance consequences of corporate volunteering: When do employees volunteer and when does volunteering help versus harm work performance? *Organizational Behavior and Human Decision Processes*, *137*, 99–111. https://doi.org/10.1016/j.obhdp.2016.08.005

Johnson, G. J., & Johnson, W. R. (1999). Perceived Overqualification and Health: A Longitudinal Analysis. *The Journal of Social Psychology*, *139*(1), 14–28. https://doi.org/10.1080/00224549909598358

Judge, T. A., Piccolo, R. F., Podsakoff, N. P., Shaw, J. C., & Rich, B. L. (2010). The relationship between pay and job satisfaction: A meta-analysis of the literature. *Journal of Vocational Behavior*, *77*(2), 157–167. https://doi.org/10.1016/j.jvb.2010.04.002

Judge, T. A., & Watanabe, S. (1993). Another look at the job satisfaction-life satisfaction relationship. *Journal of Applied Psychology*, *78*(6), 939–948. https://doi.org/10.1037/0021-9010.78.6.939

Knies, G. (2018). *Understanding Society The UK Household Longitudinal Study Waves 1-8 User Guide*.

Kujanpää, M., Syrek, C., Tay, L., Kinnunen, U., Mäkikangas, A., Shimazu, A., Wiese, C. W., Brauchli, R., Bauer, G. F., Kerksieck, P., Toyama, H., & de Bloom, J. (2022). Needs-based off-job crafting across different life domains and contexts: Testing a novel conceptual and measurement approach. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.959296

Kulkarni, M., Lengnick-Hall, M. L., & Martinez, P. G. (2015). Overqualification, mismatched qualification, and hiring decisions. *Personnel Review*, *44*(4), 529–549. https://doi.org/10.1108/PR-11-2013-0204

Laroche, P. (2017). Union membership and job satisfaction: Initial evidence from French linked employer-employee data. *Human Resource Management Journal*, *27*(4), 648–668. https://doi.org/10.1111/1748-8583.12152

Lee, A., Erdogan, B., Tian, A., Willis, S., & Cao, J. (2021). Perceived overqualification and task

performance: Reconciling two opposing pathways. *Journal of Occupational and Organizational Psychology*, *94*(1), 80–106. https://doi.org/10.1111/joop.12323

Lee, C. H. (2005). A study of underemployment among self-initiated expatriates. *Journal of World Business*, *40*(2), 172–187. https://doi.org/10.1016/j.jwb.2005.02.005

Lim, C., & MacGregor, C. A. (2012). Religion and Volunteering in Context. *American Sociological Review*, *77*(5), 747–779. https://doi.org/10.1177/0003122412457875

Lin, B., Law, K. S., & Zhou, J. (2017). Why is Underemployment Related to Creativity and OCB? A Task-Crafting Explanation of the Curvilinear Moderated Relations. *Academy of Management Journal*, *60*(1), 156–177. https://doi.org/10.5465/amj.2014.0470

Liu, S., Luksyte, A., Zhou, L., Shi, J., & Wang, M. (2015). Overqualification and counterproductive work behaviors: Examining a moderated mediation model. *Journal of Organizational Behavior*, *36*(2), 250–271. https://doi.org/10.1002/job.1979

Liu, S., & Wang, M. (2012). Perceived Overqualification: A Review and Recommendations for Research and Practice. In P. L. Perrewé, J. R. B. Halbeslebe, & C. C. Rosen (Eds.), *The role of the economic crisis on occupational stress and well being. Vol. 10. The role of the economic crisis on occupational stress and well being* (pp. 1–42). Emerald Group Publishing. https://doi.org/10.1108/S1479-3555(2012)0000010005

Luksyte, A., Spitzmueller, C., & Maynard, D. C. (2011). Why do overqualified incumbents deviate? Examining multiple mediators. *Journal of Occupational Health Psychology*, *16*(3), 279–296. https://doi.org/10.1037/a0022709

Lup, D., & Booth, J. E. (2019). Work and Volunteering: Longitudinal Relationships between Work-Related Experiences and Volunteering Behaviour. *British Journal of Industrial Relations*, *57*(3), 599–623. https://doi.org/10.1111/bjir.12421

Maltarich, M. A., Reilly, G., & Nyberg, A. J. (2011). Objective and Subjective Overqualification: Distinctions, Relationships, and a Place for Each in the Literature. *Industrial and Organizational Psychology*, *4*(2), 236–239. https://doi.org/10.1111/j.1754-9434.2011.01332.x

Maynard, D. C., Brondolo, E. M., Connelly, C. E., & Sauer, C. E. (2015). I'm Too Good for This Job: Narcissism's Role in the Experience of Overqualification. *Applied Psychology*, *64*(1), 208–232. https://doi.org/10.1111/apps.12031

McKee-Ryan, F. M., & Harvey, J. (2011). "I Have a Job, But . . .": A Review of Underemployment. *Journal of Management*, *37*(4), 962–996. https://doi.org/10.1177/0149206311398134

McKee-Ryan, F. M., Virick, M., Prussia, G. E., Harvey, J., & Lilly, J. D. (2009). Life after the layoff: getting a job worth keeping. *Journal of Organizational Behavior*, *30*(4), 561–580. https://doi.org/10.1002/job.566

Meier, S., & Stutzer, A. (2008). Is Volunteering Rewarding in Itself? *Economica*, *75*(297), 39–59. https://doi.org/10.1111/j.1468-0335.2007.00597.x

Mellor, D., Hayashi, Y., Stokes, M., Firth, L., Lake, L., Staples, M., Chambers, S., & Cummins, R. (2009). Volunteering and Its Relationship With Personal and Neighborhood Well-Being. *Nonprofit and Voluntary Sector Quarterly*, *38*(1), 144–159. https://doi.org/10.1177/0899764008317971

Mojza, E. J., Sonnentag, S., & Bornemann, C. (2011). Volunteer work as a valuable leisure-time activity: A day-level study on volunteer work, non-work experiences, and well-being at work. *Journal of Occupational and Organizational Psychology*, *84*(1), 123–152. https://doi.org/10.1348/096317910X485737

Muñoz de Bustillo Llorente, R., & Fernández Macías, E. (2005). Job satisfaction as an indicator of the quality of work. *The Journal of Socio-Economics*, *34*(5), 656–673. https://doi.org/10.1016/j.socec.2005.07.027

Peloza, J., & Hassay, D. N. (2006). Intra-organizational Volunteerism: Good Soldiers, Good Deeds and Good Politics. *Journal of Business Ethics*, *64*(4), 357–379. https://doi.org/10.1007/s10551-005-5496-z

Piatak, J. S. (2015). Altruism by Job Sector: Can Public Sector Employees Lead the Way in Rebuilding Social Capital? *Journal of Public Administration Research and Theory*, *25*(3), 877–900. https://doi.org/10.1093/jopart/muu013

Pierce, J. L., Gardner, D. G., & Crowley, C. (2016). Organization-based self-esteem and well-being: empirical examination of a spillover effect. *European Journal of Work and Organizational Psychology*, *25*(2), 181–199. https://doi.org/10.1080/1359432X.2015.1028377

Pouliakas, K. (2013). The skill mismatch challenge in Europe. In *Employment and Social Developments in Europe*. Publications Office of the European Union.

Rodell, J. B. (2013). Finding Meaning through Volunteering: Why Do Employees Volunteer and What Does It Mean for Their Jobs? *Academy of Management Journal*, *56*(5), 1274–1294. https://doi.org/10.5465/amj.2012.0611

Rodell, J. B., Breitsohl, H., Schröder, M., & Keating, D. J. (2016). Employee Volunteering: A Review and Framework for Future Research. *Journal of Management*, *42*(1), 55–84. https://doi.org/10.1177/0149206315614374

Rose, S. J. (2017). *How many workers with a bachelor's degree are overqualified for their jobs?*

Ryan, R. M. (1995). Psychological Needs and the Facilitation of Integrative Processes. *Journal*

of Personality, *63*(3), 397–427. https://doi.org/10.1111/j.1467-6494.1995.tb00501.x

Ryan, R. M., & Deci, E. L. (2017). *Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness*. Guilford Press. https://doi.org/10.1521/978.14625/28806

Sajaia, Z. (2009). Maximum Likelihood Estimation of a Bivariate Ordered Probit Model: Implementation and Monte Carlo Simulations. *The Stata Journal*, *ii*, 1–18.

Stutzer, A., & Frey, B. S. (2008). Stress that Doesn't Pay: The Commuting Paradox*. *Scandinavian Journal of Economics*, *110*(2), 339–366. https://doi.org/10.1111/j.1467-9442.2008.00542.x

Takeuchi, R., Yun, S., & Tesluk, P. E. (2002). An examination of crossover and spillover effects of spousal and expatriate cross-cultural adjustment on expatriate outcomes. *Journal of Applied Psychology*, *87*(4), 655–666. https://doi.org/10.1037/0021-9010.87.4.655

Thoits, P. A., & Hewitt, L. N. (2001). Volunteer Work and Well-Being. *Journal of Health and Social Behavior*, *42*(2), 115. https://doi.org/10.2307/3090173

Thompson, M. J., Carlson, D. S., Kacmar, K. M., & Vogel, R. M. (2020). The cost of being ignored: Emotional exhaustion in the work and family domains. *Journal of Applied Psychology*, *105*(2), 186–195. https://doi.org/10.1037/apl0000433

Van den Broeck, A., Schreurs, B., Guenter, H., & van Emmerik, I. H. (2015). Skill utilization and well-being: a cross-level story of day-to-day fluctuations and personal intrinsic values. *Work & Stress*, *29*(3), 306–323. https://doi.org/10.1080/02678373.2015.1074955

Vedder, R., Denhart, C., & Robe, J. (2013). *Why are recent college graduates underemployed? University enrollments and labor-market realities?*

Verhaest, D., & Omey, E. (2009). Objective over-education and worker well-being: A shadow

price approach. *Journal of Economic Psychology*, *30*(3), 469–481. https://doi.org/10.1016/j.joep.2008.06.003

Wang, Y.-D., Yang, C., & Wang, K.-Y. (2012). Comparing Public and Private Employees' Job Satisfaction and Turnover. *Public Personnel Management*, *41*(3), 557–573. https://doi.org/10.1177/009102601204100310

Yu, H., Yang, F., Wang, T., Sun, J., & Hu, W. (2021). How perceived overqualification relates to work alienation and emotional exhaustion: The moderating role of LMX. *Current Psychology*, *40*(12), 6067–6075. https://doi.org/10.1007/s12144-019-00538-w

Zhang, F., Wang, B., Qian, J., & Parker, S. K. (2021). Job crafting towards strengths and job crafting towards interests in overqualified employees: Different outcomes and boundary effects. *Journal of Organizational Behavior*, *42*(5), 587–603. https://doi.org/10.1002/job.2517

Zhang, M. J., Law, K. S., & Lin, B. (2016). You think you are big fish in a small pond? Perceived overqualification, goal orientations, and proactivity at work. *Journal of Organizational Behavior*, *37*(1), 61–84. https://doi.org/10.1002/job.2024

Zhang, X., Ma, C., Guo, F., & Li, Z. (2022). Does perceived overqualification cultivate angels or demons? Examining its interpersonal outcomes through pride from an evolutionary psychology perspective. *Applied Psychology*, *71*(1), 243–270. https://doi.org/10.1111/apps.12319

Table 1. The distribution of job satisfaction by gender and overqualification.

	Men				Women			
	Overqualified		Non-overqualified		Overqualified		Non-overqualified	
	Count	*%*	*Count*	*%*	*Count*	*%*	*Count*	*%*
Not satisfied at all	105	*2.4*	311	*1.8*	128	*2.3*	430	*1.9*
2	187	*4.3*	651	*3.8*	212	*3.9*	710	*3.1*
3	378	*8.7*	1412	*8.2*	440	*8.0*	1771	*7.8*
Neutral	501	*11.6*	1514	*8.8*	496	*9.0*	1709	*7.5*
5	1126	*26.0*	4082	*23.7*	1249	*22.6*	4942	*21.7*
6	1511	*34.8*	6980	*40.5*	2145	*38.9*	9461	*41.5*
Completely satisfied	531	*12.2*	2262	*13.1*	849	*15.4*	3780	*16.6*
Number of observations	4339	*100*	17216	*100*	5519	*100*	22816	*100*
Average job satisfaction	*5.076*		*5.230*		*5.238*		*5.347*	
t-test for diff. in average satisfaction	*t = -6.482 (P > |t| = 0.001)*				*t = -5.228 (P > |t| = 0.001)*			

Source(s): Authors own creation and work

Table 2. The frequency of volunteering by gender and overqualification.

		Men				Women			
		Overqualified		Non-overqualified		Overqualified		Non-overqualified	
		Count	*%*	*Count*	*%*	*Count*	*%*	*Count*	*%*
Volunteering									
0	Not at all	3635	*83.8*	14332	*83.2*	4420	*80.1*	18908	*82.9*
1	Helped on a seasonal basis	16	*0.4*	45	*0.3*	24	*0.4*	46	*0.2*
2	One-off activity	66	*1.5*	295	*1.7*	76	*1.4*	314	*1.4*
3	Just a few times	101	*2.4*	531	*3.1*	140	*2.5*	623	*2.7*
4	Quite often but not regularly	72	*1.7*	272	*1.6*	126	*2.3*	441	*1.9*
5	At least once a month	82	*1.9*	440	*2.6*	150	*2.7*	658	*2.9*
6	Once a fortnight	49	*1.1*	195	*1.1*	60	*1.1*	273	*1.2*
7	Once a week	136	*3.1*	542	*3.1*	287	*5.2*	915	*4.0*
8	Twice a week	111	*2.6*	326	*1.9*	119	*2.2*	395	*1.7*
9	On 3 or more days a week	68	*1.6*	237	*1.4*	111	*2.1*	243	*1.1*
	Number of observations	4339	*100*	17216	*100*	5519	*100*	22816	*100*

Source(s): Authors own creation and work

Table 3. The effect of overqualification on job satisfaction and volunteering – men.

	Ordered probit	Bivariate ordered probit	
	Job satisfaction	Job satisfaction	Volunteering
Overqualified	-0.089** (0.027)	-0.121* (0.032)	0.132** (0.041)
Volunteering	0.009* (0.004)	–	–
Age	-0.044** (0.006)	-0.035** (0.008)	-0.030** (0.009)
(Age)/100	0.052** (0.007)	0.040** (0.010)	0.038** (0.011)
University degree	-0.001 (0.024)	-0.056 (0.037)	0.220** (0.011)
White British	-0.050+ (0.027)	-0.070* (0.030)	0.105* (0.040)
Married	0.032 (0.022)	0.002 (0.027)	0.104** (0.032)
Number of children	0.016 (0.010)	0.007 (0.012)	0.030* (0.015)
Poor health	-0.341** (0.083)	-0.280** (0.090)	-0.200 (0.135)
Religion	–	–	-0.162** (0.031)
Big 5 – agreeable	0.066** (0.010)	0.056** (0.012)	0.028+ (0.014)
Big 5 – conscientious	0.048** (0.010)	0.050** (0.010)	-0.012 (0.014)
Big 5 – extravert	0.043** (0.008)	0.033** (0.010)	0.034** (0.012)
Big 5 – neurotic	-0.094** (0.007)	-0.093** (0.008)	0.006 (0.011)
Big 5 - open to experience	-0.011 (0.009)	-0.021* (0.010)	0.044** (0.013)
Commuting time to work	-0.001* (0.000)	-0.001** (0.001)	-0.001 (0.000)
Log (weekly gross pay)	0.133** (0.022)	0.120* (0.024)	0.037 (0.031)
Log (weekly hours)	-0.148** (0.037)	-0.047 (0.064)	-0.386** (0.048)
Paid hourly	-0.121** (0.023)	-0.010** (0.027)	-0.072* (0.036)
Managerial responsibilities	0.056* (0.023)	0.021 (0.030)	0.134** (0.032)
Management & professional occupation	-0.075* (0.032)	-0.147** (0.047)	0.289** (0.049)
Intermediate occupation	-0.122** (0.035)	-0.142** (0.037)	0.093+ (0.053)
Lower supervisory & technical occupation	0.042 (0.030)	0.028 (0.033)	0.053 (0.050)
Union member	-0.066** (0.022)	-0.069** (0.023)	-0.017 (0.032)
Private sector employee	-0.058** (0.021)	0.005 (0.036)	-0.203** (0.031)
Work in small firm	0.077** (0.019)	0.060** (0.022)	0.061* (0.028)
Pseudo-R^2	0.020		
Wald Chi^2	734.73	659.02	
Prob > Chi^2	0.001	0.001	
Log pseudolikelihood	-34022.61	-50777.92	
Rho		-0.242* (0.125)	
Wald Chi^2 test of independence of equations		*3.45 (P=0.063)*	
Number of clusters		8,973	
Number of observations		21,555	

NOTES: + $p<0.1$; * $p<0.05$; ** $p<0.01$. Robust standard errors clustered at the individual level are in parentheses. Reference category for occupation is semi-routine & routine occupation. Other controls include dummy variables for year and for twelve UK regions.

Source(s): Authors own creation and work

Table 4. The effect of overqualification on job satisfaction and volunteering – women.

	Ordered probit	Bivariate ordered probit	
	Job satisfaction	Job satisfaction	Volunteering
Overqualified	-0.083* (0.025)	-0.122* (0.029)	0.125** (0.037)
Volunteering	0.005 (0.003)	–	–
Age	-0.014* (0.005)	-0.013* (0.006)	0.003 (0.008)
(Age)/100	0.017* (0.006)	0.014* (0.007)	0.003 (0.009)
University degree	-0.005 (0.022)	-0.086* (0.041)	0.242** (0.033)
White British	0.024 (0.024)	0.0032 (0.028)	0.084** (0.033)
Married	0.060** (0.017)	0.054** (0.019)	0.003 (0.024)
Number of children	0.030** (0.010)	0.022+ (0.011)	0.017 (0.014)
Poor health	-0.427** (0.063)	-0.382** (0.073)	-0.063 (0.092)
Religion	–	–	-0.127** (0.027)
Big 5 – agreeable	0.071** (0.009)	0.064** (0.011)	0.008 (0.012)
Big 5 – conscientious	0.058** (0.009)	0.064** (0.009)	-0.027* (0.013)
Big 5 – extravert	0.024** (0.007)	0.015+ (0.008)	0.024* (0.010)
Big 5 – neurotic	-0.083** (0.006)	-0.069** (0.009)	-0.028** (0.009)
Big 5 - open to experience	-0.024** (0.007)	-0.043** (0.011)	0.062** (0.010)
Commuting time to work	-0.003** (0.000)	-0.003** (0.000)	0.001+ (0.001)
Log (weekly gross pay)	-0.023 (0.019)	-0.040+ (0.021)	-0.055* (0.026)
Log (weekly hours)	-0.036 (0.026)	0.054 (0.046)	-0.258** (0.032)
Paid hourly	-0.000 (0.019)	0.028 (0.023)	-0.079** (0.027)
Managerial responsibilities	0.053* (0.021)	0.018 (0.027)	0.097** (0.030)
Management & professional occupation	-0.085** (0.028)	-0.167** (0.043)	0.253** (0.040)
Intermediate occupation	-0.073** (0.024)	-0.119** (0.031)	0.147** (0.036)
Lower supervisory & technical occupation	-0.003 (0.038)	-0.043 (0.043)	0.119* (0.052)
Union member	-0.138* (0.018)	-0.095** (0.029)	-0.100** (0.026)
Private sector employee	-0.105** (0.018)	-0.054+ (0.030)	-0.132** (0.025)
Work in small firm	0.118** (0.016)	0.096** (0.021)	0.046* (0.023)
Pseudo-R^2	0.020		
Wald Chi^2	852.18	692.00	
Prob > Chi^2	0.001	0.001	
Log pseudolikelihood	-44123.86	-66933.04	
Rho		-0.334** (0.140)	
Wald Chi^2 test of independence of equations		*4.84 (P = 0.028)*	
Number of clusters		11,714	
Number of observations		28,335	

NOTES: + $p<0.1$; * $p<0.05$; ** $p<0.01$. Robust standard errors clustered at the individual level are in parentheses. Reference category for occupation is semi-routine & routine occupation. Other controls include dummy variables for year and for twelve UK regions.

Source(s): Authors own creation and work

Table 5. Average predicted probabilities – Job satisfaction.

	Men						
	Not satisfied at all	2	3	Neutral	5	6	Completely satisfied
Overqualified	2.5	4.5	9.2	10.1	25.0	37.6	11.1
Non-overqualified	1.8	3.7	8.0	9.1	24.0	39.9	13.4
Volunteering							
On 3 or more days a week	1.7	3.5	7.6	8.8	23.6	40.5	14.4
Twice a week	1.8	3.6	7.8	8.9	23.8	40.2	13.8
Once a week	1.7	3.5	7.7	8.9	23.7	40.4	14.1
Never	2.0	3.9	8.3	9.4	24.3	39.3	12.8
Union member	2.2	4.2	8.7	9.7	24.6	38.6	12.1
Not union member	1.9	3.8	8.1	9.2	24.1	39.7	13.3
Poor health	5.2	7.6	13.0	12.4	25.8	29.8	6.2
Good health	1.9	3.8	8.2	9.3	24.2	39.5	13.0
	Women						
Overqualified	2.4	3.7	8.5	8.2	22.4	40.0	14.8
Non-overqualified	1.9	3.2	7.6	7.6	21.7	41.3	16.7
Volunteering							
On 3 or more days a week	1.8	3.0	7.2	7.3	21.0	41.6	18.0
Twice a week	1.8	3.1	7.4	7.5	21.4	41.6	17.3
Once a week	1.9	3.2	7.7	7.7	21.7	41.1	16.5
Never	2.0	3.3	7.8	7.8	21.8	41.0	16.3
Union member	2.3	3.6	8.4	8.2	22.5	40.1	14.8
Not union member	1.9	3.1	7.4	7.5	21.5	41.5	17.1
Poor health	5.7	6.9	13.2	10.9	24.6	31.4	7.3
Good health	1.9	3.2	7.7	7.7	21.8	41.2	16.5

NOTE: Based on the bivariate ordered probit coefficients in Tables 3 and 4.

Source(s): Authors own creation and work

Appendix Table A1. Descriptive statistics.

Variable	Definition	M *(SD)*			
		Men		Women	
Job satisfaction	Categorical variable, 1 = Not satisfied at all, 7 = Completely satisfied	5.199	*(1.399)*	5.326	*(1.399)*
Volunteering frequency	Categorical variable, 0 = Not at all, 9 = On 3 or more days a week	0.888	*(2.191)*	0.961	*(2.260)*
Overqualified*	1 = Overqualified; 0 = otherwise	0.201	*(0.401)*	0.195	*(0.396)*
Age	Age in years	42.590	*(11.523)*	42.758	*(11.322)*
University degree*	1 = university degree; 0 = otherwise	0.444	*(0.497)*	0.480	*(0.500)*
White British*	1 = white British; 0 = otherwise	0.840	*(0.366)*	0.842	*(0.365)*
Married	1= married; 0 = otherwise	0.603	*(0.489)*	0.543	*(0.498)*
Number of children	Number of own children in the household	0.681	*(0.996)*	0.642	*(0.919)*
Poor health*	1= poor health; 0 = otherwise	0.012	*(0.107)*	0.016	*(0.126)*
Religion*	1 = reported religious affiliation; 0 = otherwise	0.287	*(0.452)*	0.239	*(0.426)*
Big 5 – agreeable	Categorical variable, 1 = low score; 7 = high score	5.423	*(1.037)*	5.763	*(0.958)*
Big 5 – conscientious	Categorical variable, 1 = low score; 7 = high score	5.43	*(1.024)*	5.693	*(0.994)*
Big 5 – extravert	Categorical variable, 1 = low score; 7 = high score	4.453	*(1.243)*	4.759	*(1.270)*
Big 5 – neurotic	Categorical variable, 1 = low score; 7 = high score	3.278	*(1.308)*	3.838	*(1.361)*
Big 5 - open to experience	Categorical variable, 1 = low score; 7 = high score	4.694	*(1.170)*	4.502	*(1.232)*
Commuting time to work	Commuting time to work in minutes	28.589	*(26.081)*	23.672	*(19.93)*
Log (weekly gross pay)	Logarithm of usual weekly gross earnings	7.673	*(0.622)*	7.179	*(0.737)*
Log (weekly hours)	Logarithm of usual weekly work hours	3.602	*(0.283)*	3.312	*(0.456)*
Paid hourly*	1 = hourly-paid employee; 0 = otherwise	0.299	*(0.458)*	0.333	*(0.471)*
Managerial responsibilities*	1 = managerial responsibilities; 0 = otherwise	0.292	*(0.455)*	0.202	*(0.402)*
Management & professional occupation*	1 = Management & professional occupation*; 0 = otherwise	0.483	(0.500)	0.449	*(0.497)*
Intermediate occupation*	1 - Intermediate occupation*; 0 = otherwise	0.114	(0.318)	0.205	*(0.404)*
Lower supervisory & technical occupation*	1 = Lower supervisory & technical occupation*; 0 = otherwise	0.131	(0.337)	0.049	*(0.217)*
Union member*	1 = member of a labor union; 0 = otherwise	0.276	*(0.447)*	0.336	*(0.472)*
Private sector employee*	1 = private sector employee; 0 = otherwise	0.724	*(0.447)*	0.508	*(0.500)*
Work in small firm*	1 = working in a small firm (< 50 employees); 0 = otherwise	0.404	*(0.491)*	0.476	*(0.499)*
Number of observations		21555		28335	

NOTE: * Denotes a dummy variable
Source(s): Authors own creation and work