

“Don't you want to stay?” The impact of training and recognition as HR practices on volunteer turnover

Marlene Walk
School of Public and
Environmental Affairs
Indiana University-Purdue
University Indianapolis
mwalk@iupui.edu

Ruodan Zhang
School of Public and
Environmental Affairs
Indiana University,
Bloomington
rz3@uemail.iu.edu

Laura C. Littlepage
1) School of Public and
Environmental Affairs
Indiana University, Bloomington
2) Public Policy Institute, Indiana
University
llittlep@iu.edu

Financial support: The first author would like to thank the IUPUI Office of the Vice Chancellor for Research, the IUPUI Office for Women, and Indiana University's Public Policy Institute for their generous support.

Acknowledgements: We extend our gratitude to the Boy Scouts Crossroads of America Council for their data access. We also thank Beth Gazley for comments on an earlier version of this paper, Megan Bowers for her support in data cleaning, and Charity Scott for her help in manuscript preparation. Finally, we also thank our anonymous reviewers for their constructive feedback during the review process.

Abstract

Managing volunteers is a difficult undertaking. This study draws on human resource management theory and literature to investigate the effect of two human resource (HR) practices—training and recognition—on volunteer turnover. We use longitudinal administrative data collected by an Indiana nonprofit organization, which contains individual volunteer characteristics, organizational HR practices, and information on actual turnover behavior. We found that recognizing volunteer contributions with awards predicted volunteer retention in the following year. Training did not have a direct effect on volunteer turnover, but interacted with gender; men who received training were more likely to stay than women. The study contributes

This is the author's manuscript of the article published in final edited form as:

Walk, M., Zhang, R., & Littlepage, L. (2019). “Don't you want to stay?” The impact of training and recognition as human resource practices on volunteer turnover. *Nonprofit Management and Leadership*. <https://doi.org/10.1002/nml.21344>

to the literature on human resource management in the volunteer context, adds to the emerging literature on awards as incentives for volunteers, and addresses the common method bias by using longitudinal data.

Keywords: turnover, volunteers, HR practices, human resource management, volunteer management

Background and Significance

In 2015, about 25% of US adults donated 8.7 billion hours of their time to nonprofits (Bureau of Labor Statistics, 2016). Volunteering, defined as activities performed in formal settings in which time is freely given to benefit others without remuneration (Cnaan, Handy, & Wadsworth, 1996), is, thus, a major source of (unpaid) labor for nonprofits. Indeed, beyond universal board service, an estimated 80% of all charitable nonprofit organizations rely on volunteers for service provision and management (Hager & Brudney, 2008). Nonprofits, in turn, are better able to provide services and offer programs in diverse areas such as education, the environment, or human services.

Managing volunteers, however, is a difficult undertaking. Due to their non-contractual relationship with nonprofits, volunteers ‘vote with their feet’ and leave organizations when they are dissatisfied. As such, the volunteer nature of work challenges traditional retention strategies, which operate under the assumption of mutual dependency between employee and organization (e.g., exchange of labor for a wage; Simon, 1951). Indeed, volunteer turnover has been regarded as an increasing challenge to nonprofits’ provision of services (Garner & Garner, 2011). Reliable statistics are scarce, but the Corporation for National and Community Service (2015) reports annual turnover rates between 24 – 47% for the organizations with which they work.

Contributions to the volunteer management literature in the past few years has led to a better understanding of the intricacies of volunteer turnover. Scholars have identified a range of significant predictors for volunteer retention such as voice (Garner & Garner, 2011), volunteer role identity (Grube & Piliavin, 2000), perceived competence and efficacy (Ripamonti, Pasquarelli, Ravasi, & Sala, 2016; Wu, Li, & Khoo, 2016), distributive justice (Hurst, Scherer, & Allen, 2017), as well as volunteer motivation (e.g., Garner & Garner, 2011; Gazley, 2013; Nencini, Romaioli, & Meneghini, 2016). Aside from individual volunteer motives and dispositions, effective management within the organization also contributes to volunteer retention (Hager & Brudney, 2008; Gazley, 2013). Scholars have also examined volunteers' perceptions of the organizational context impacting retention success such as organizational climate (Nencini et al., 2016), the design of volunteer roles (Alfes, Shantz, & Saksida, 2015), organizational support (Alfes, Shantz, & Bailey, 2016), and job resources (Presti, 2013). Rather than relying on individual perceptions of volunteer management practices, this study builds on these findings and adopts a management perspective by drawing on objective measures of human resource (HR) practices that impact volunteer retention. Our research question is: To what extent do HR practices of volunteer training and recognition influence actual turnover of volunteers? In answering this question, we particularly focus on the effects of training and recognition on volunteer turnover while using longitudinal administrative data containing information on 7,595 volunteers and controlling for their demographic information (such as age, gender, race) alongside volunteer context information (such as roles, ranks).

Scholars have increasingly investigated the applicability and transferability of human resource management practices to the volunteer context. Their findings indicate that certain HR practices can impact volunteer attitudes and behaviors, and therefore, improve volunteering

outcomes, such as retention rates (Saksida, Alfes, & Shantz, 2016), as well as organizational outcomes, such as client satisfaction ratings (Rogers, Jiang, Rogers, & Intindola, 2016). Even though efforts have been made to develop a theoretical understanding of the potential for HR practices to impact volunteer retention, this research area remains underdeveloped (Alfes, Antunes, & Shantz, 2016) leading Bartram, Cavanagh, and Hoye (2017) to note that there is an “absence of research on the impact of HRM within volunteer and grassroots community organizations” (p. 1907-1908). As such, this study responds to calls for research on the impact of HR practices on volunteer outcomes (Alfes, Shantz, & Saksida, 2015; Studer & von Schnurbein, 2013) by focusing on two prominent HR practices—training and recognition—and their impact on volunteer turnover. Particularly, we test the HR bundling perspective (Delery & Doty, 1996; MacDuffie, 1995) in the context of volunteers, indicating that HR practices work best if utilized in well-aligned bundles.

We also contribute to the emerging awards literature (Frey & Gallus, 2017; Frey & Gallus, 2018; Gallus, 2016). Originally stemming from economics, awards have been proposed as a valuable instrument of recognition for volunteers as they create benefits for those who win (Frey & Gallus, 2017). This study contributes to the knowledge on awards and their particular impact on subsequent performance (Frey & Gallus, 2017; Frey & Gallus, 2018; Gallus, 2016). We hereby respond to calls to study awards in non-virtual fields in the context of volunteer retention (Gallus, 2016; Zhang & Zhu, 2011).

In trying to understand volunteer turnover, most of the previous literature relies on cross-sectional, self-reported data collected from volunteers or volunteer managers. There are three particular reasons why this should be concerning. First, self-reports are a problematic tool to make claims about certain phenomena, since they are prone to measurement error (Podsakoff,

MacKenzie, Lee, & Podsakoff, 2003). Second, studies relying on self-reported data most frequently assess intentions to stay/quit as proxy rather than actual turnover, since data on actual turnover is difficult to collect in a systematic fashion (Henderson & Sowa, 2017). Self-reporting, however, may be difficult for respondents due to challenges of recall over a certain time span (Schwarz & Oyserman, 2001). Moreover, in a study on volunteer management practices, those surveyed may not want to draw attention to potential volunteer retention problems, which potentially leads to social desirability bias (Podsakoff et al., 2003). Scholars have therefore called for research incorporating objective measures to mitigate these limitations (Newton, Becker, & Bell, 2014). Finally, most studies on volunteer retention collect data for the independent and dependent variables from the same source at one point in time, which likely causes common method bias (Podsakoff et al., 2003). Our longitudinal administrative data allow us to eliminate these previous methodological limitations.

Literature Review - The role of human resource management in volunteer retention

Similar to paid employee retention, volunteer retention is one of the greatest challenges for volunteer-dependent nonprofit organizations (Garner & Garner, 2011). These organizations have to invest time and money into volunteer replacement since new volunteers need to be properly onboarded and get acquainted with organizational processes and culture in order to perform their tasks well (Clary, Snyder, & Ridge, 1992; Handy & Srinivasan, 2004). Traditional human resource management focuses on HR practices such as selection/recruitment, performance management, or training/development to effectively and efficiently manage human resources (Huselid, 1995). Even though these HR practices have been proven effective in the case of paid employees, it is unclear whether or not these can be applied to the context of volunteers (Alfes et al., 2016), since volunteers differ significantly from paid employees in key

areas including formal relationship with the organization, attitudes, behaviors, and motivations (Studer & von Schnurbein, 2013). For example, volunteers are not bound to the organization by a contractual agreement, volunteer only for a few hours per week and often for more than one organization, and are not motivated by receiving a paycheck or health benefits (Alfes & Langner, 2017; Cnaan & Cascio, 1998; Fallon & Rice, 2015). The extent to which volunteers and paid employees are different may depend on the specific roles and the work environment (Liao-Troth, 2001) as well as on organizational culture (Schein, 2010). Volunteers, compared to paid employees, can have weaker ties that bind them to the organization and, therefore, easily ‘vote with their feet’ and leave when they are dissatisfied (Pearce, 1983). Therefore, it is important for nonprofits to engage in strategic HR planning for volunteers and paid staff individually, being cognizant of the HR practices in place that will best recruit and retain both groups (Alfes et al., 2016). This study particularly focuses on two HR practices—training and recognition—that are frequently employed to support volunteer performance.

Recognition as HR practice

Recognition activities, broadly defined as activities to reward volunteers for their labor, play an important role in fostering positive relationships between volunteers and the organization (Fallon & Rice, 2015). Recognition activities come in different forms and range from acknowledgements in newsletters or during public events, to awards for the service provided, to a simple ‘thank you’ from an organization member or service recipient (Fallon & Rice, 2015; Kovacs & Black, 2000; Smith & Grove, 2017). Recognition is especially important for long-term volunteers (Schlesinger, Egli, & Nagel, 2013) and positively impacts volunteer satisfaction, commitment, and tenure (Cnaan & Cascio, 1998; Fallon & Rice, 2015; Smith & Grove, 2017). Different types of recognition lead to different desired outcomes. For instance, Cnaan and Cascio

(1998) find that receiving thank you letters is related to volunteer satisfaction, whereas free medical care and meals as well as the ability to attend conferences are associated with commitment. These authors also show that certificates of appreciation as well as thank you luncheons are related to tenure with the organization. Farmer and Fedor (1999) study the impact of perceived organizational support—a measure that captures recognition activities alongside other aspects—on turnover intentions and find a negative relationship, indicating that volunteers are less likely to want to leave if they feel supported and recognized in the organization. Similarly, a lack of or inadequate recognition from the organization can lead to dissatisfaction and volunteer turnover (Smith & Grove, 2017).

This paper particularly focuses on awards as a form of recognition. Awards have a history in film (such as the Oscars) and academia (such as the Nobel Prize) but have only recently received attention in the volunteer space (Frey & Gallus, 2018). Frey and Gallus (2018) propose awards as valuable incentives for volunteers as they create benefits for those who win. For instance, volunteers who receive awards feel recognized and honored while those who do not receive awards would like to do so in the future and, thus, may increase their performance efforts (Frey & Gallus, 2018). Generally, the literature distinguishes between discretionary and confirmatory awards; confirmatory awards are given out following clearly defined and observable achievements, whereas discretionary awards are given out at the discretion of the giver aiming to recognize exceptional behavior (Frey & Gallus, 2017).

To date, the impact of awards on subsequent performance has been understudied (Frey & Gallus, 2017) as disentangling the causal mechanism between awards and performance is challenging, given the apparent selection bias: awards tend to be given out to those individuals displaying high performance, however, receiving an award may also lead to higher performance.

A recent natural field experiment in the volunteer context further explored the directionality of the causal effect. Gallus (2016) randomly selected new volunteer editors on Wikipedia to receive awards while others were excluded from receiving awards. Her findings indicate that receiving discretionary awards lead to higher subsequent performance as well as increased retention rates (Gallus, 2016). Particularly, volunteers who received awards were more active in the months following the award receipt, indicating a direct impact on performance. Moreover, awards also had a strong and sustained impact on retention; one month after award receipt retention rates were 20% higher, and two months later retention rates were 14% higher for award recipients as compared to non-recipients. While we cannot fully eliminate selection bias in our study, the findings from Gallus (2016) increase our confidence in the discretionary award-subsequent performance relationship and also point towards the potential positive impact of awards on volunteer retention in the context of our study over time. As the findings in Gallus (2016) are limited to Wikipedia volunteers, we further test the relationship between discretionary awards and volunteer retention in a non-virtual setting. Our paper, thus, further disentangles the award-performance relationship (Gallus, 2016; Zhang & Zhu, 2011).

Training as HR Practice

Training is another commonly used HR practice. Training increases the volunteers' abilities and skills to perform their volunteer tasks well. Moreover, training helps volunteers to further increase their knowledge about the organization, its goals, and their own role in achieving these goals (Saksida et al., 2016). After receiving training, volunteers experience higher levels of confidence in their abilities to perform their roles (Newton, Becker, & Bell, 2014). The literature on the impact of training on volunteer retention is limited but, generally, there is a positive effect of training on retention. For instance, research among volunteers of five different organizations

finds that perceived learning and development opportunities were positively related to intentions to stay (Newton et al., 2014). Henderson and Sowa (2017), in their study of volunteer fire fighters, find that training opportunities were positively related to volunteers' intentions to remain in one year and in five years. Other studies investigating the relationship between recognition and training and the impact of both on volunteers' intention to stay, present similar positive findings (Fallon & Rice, 2015). However, the above-mentioned studies measured perceptions of training opportunities rather than actual training.

Rather than assessing perceptions, Hager and Brudney (2008) focus on the impact of actual volunteer management practices on volunteer retention. Volunteer managers of a randomly drawn sample of nearly 3,000 charities were asked about the extent to which their organizations adopted volunteer management practices such as supervision and communication with volunteers, screening and matching volunteers to jobs, recognition activities, training and professional development, among others. Recognition activities were most commonly employed (82% adopted those practices to some or to a large degree) closely followed by training and development opportunities (74% adopted those practices to some or to a large degree). Findings from regression analysis indicate that both recognition and training activities positively influence volunteer retention in the sampled organization.

Similar to Hager & Brudney (2008), the present study draws on actual training and recognition information and can, therefore, provide a more objective assessment of the effectiveness of these HR practices on volunteer retention. Based on the reviewed literature, we hypothesize a negative relationship between HR practices of training and recognition on actual volunteer turnover indicating that volunteers who receive training and/or recognition are more likely to remain with the organization the following year.

Hypothesis 1: Recognition in form of discretionary awards will be negatively related to actual volunteer turnover.

Hypothesis 2: Training will be negatively related to actual volunteer turnover.

Training and recognition as HR bundle

Human resource management scholars have argued that individual HR practices work best if integrated into HR bundles (Delery & Doty, 1996; MacDuffie, 1995). HR bundles consist of individual HR practices that are complementary and reinforce each other (MacDuffie, 1995). If individual HR practices are well-aligned and internally consistent (Delery, 1998), HR bundles can have a greater effect on performance and other organizational outcomes such as job satisfaction, turnover, or organizational commitment, exceeding the effect of individual practices (MacDuffie, 1995; Macky & Boxall, 2007).

There are different ways to operationalize HR bundles. The two most prominent approaches are the additive—using indices—and the multiplicative—using interaction terms (MacDuffie, 1995; Delery, 1998). The additive approach assumes that utilizing more HR practices is better and will increase the net effect on the desired outcomes, whereas the multiplicative approach assumes that one HR practice depends on the extent of other practices in the system (MacDuffie, 1995; Delery, 1998). Since we reason that training and recognition are not dependent on each other in the context of our study, we pursue the additive approach.

Hypothesis 3: An HR bundle consisting of training and recognition will be negatively related to actual volunteer turnover.

Data and Methods

Our data stem from the Boy Scouts Crossroads of America Council (BSA) which operates in 26 counties in Indiana and serves 33,000 youth through the support of about 7,500

volunteers. These BSA volunteers are considered long-term and are mostly involved in providing weekly programming. Consequently, volunteer retention is a critical management issue for the BSA. The BSA collects administrative data from volunteer application forms and regularly enters more information into the system (e.g., changes in volunteer roles). Moreover, all BSA volunteers have to renew their commitment annually in a process that is called “rechartering.” The rechartering data can be considered actual turnover data as those who have not renewed their commitment have essentially dropped out of volunteer service.

This paper draws on de-identified longitudinal administrative data from 2016-2017. The original 2016 data consist of 7,597 volunteers and the 2017 data of 7,036 volunteers. Each observation was assigned a unique identifier composed of the first letter of the volunteer’s first name, the last letter of the volunteer’s last name, gender designation, birthday (1-31), and birth year. Only 3.45 percent of the 2016 data and 3.21 percent of the 2017 data were duplicate records using the original identifier. We added information on district—the BSA divides the Indiana counties into 13 districts, most of which serve multiple counties—unit numbers, and awards received to the identifier, in order to remove all remaining duplicates within the respective data sets.

After the data cleaning process,ⁱ a total of 6,629 entries were matched across both 2016 and 2017 data sets. The remaining 968 cases out of the 7,597 entries in the 2016 data set were identified as volunteers who did not renew their commitment for the following year. We also excluded 2 observations that suggest significant data entry error—one with no age value or identifier information, and the other with an age of 14 and substantial missing values. In summary, the data reported 6,628 (87.27%) rechartered volunteers from 2016, and 967 (12.73%)

discontinued volunteers (see Table 1). This turnover rate (12.73%) was well below findings from other organizations (Corporation for National and Community Service, 2015).

Volunteers within the dataset volunteer either at a local BSA council, at a district within a council, or in a Scout unit. A majority (about 70%, $N = 5,316$) volunteer in a Scout unit where they directly interact with the Scouts (hereafter, “unit-level volunteers”). Considering possible heterogeneity in volunteer experience given different volunteer task assignment, it is important to control for volunteer roles and ranks. In addition, while the administrative data do not contain information on the length of volunteering, volunteer rank information best suggests volunteers’ previous involvement and progress with the BSA. However, this data set only records such information for unit-level volunteers. There is no other clear identifier to separate rank and role information for volunteers serving on the council or at the district level. In total, the data set recorded complete information, including volunteer roles and ranks, on 4,310 unit-level volunteers (56.75% of the total observations), who constitute the majority of the BSA’s volunteer workforce and are most relevant to the organization’s management practice.

Overall, the full data set ($N = 7,595$) and the subset of unit-level volunteers do not differ significantly on the explanatory variables (including the proportion of Eagle Scouts). However, the full data set reported a slightly older population (mean = 45.5 years, versus 43.2 years in the unit-level sample), lower level of training (mean = 0.34, versus 0.49), slightly higher proportion of discretionary award recipients (mean = 0.11, versus 0.095), but lower turnover rates (mean = 0.13, versus 0.18). (Analyses are available upon request.)

<insert Table 1 about here>

Measures

Dependent variable

This study uses actual volunteer *turnover* as the dependent variable. The variable was constructed by merging the data across 2016 and 2017. A rechartered volunteer (Turnover = 0) was identified if the volunteer had matched entries in both 2016 and 2017 data sets. A discontinued volunteer (Turnover = 1) was identified if the entry was only available in 2016 with no match in 2017. Observations only available in 2017 were not part of this analysis, because these account for new volunteers joining in 2017.

Independent variables

This study uses volunteer training and recognition as independent variables. Volunteer training was measured as whether the volunteer participated in optional unit-level training (*Training* = 1; no training = 0) in the 2016 administrative record. The BSA offers general training, such as orientation, and position-specific trainings (e.g., Pack committee member position-specific training, Tiger Cub Den leader position-specific training) for adult volunteers. Training is available to all individuals, regardless of their volunteer role (unit, district, or council). We exclude mandatory training, such as youth protection training, that all registered volunteers must retake every two years.

Volunteer recognition was measured as whether the volunteer received any discretionary award (*Discretionary award* = 1; no award = 0) in the 2016 administrative record. Possible awards include scout leader awards (e.g., District Award of Merit) and other awards (e.g., World Conservation Award) which are given out at the discretion of the BSA. Boy Scout volunteers can also pursue awards that are rather confirmatory in nature, such as the Mile Swim or Tiger Cub Den Leader Award—awards for which there are clear criteria necessary for achieving them (Frey

& Gallus, 2017). We excluded confirmatory awards from the analyses because, in these cases, the award givers do not enjoy the discretion to recognize top performers, and top performers are guaranteed recognition by meeting certain criteria.

We operationalized the HR bundles of training and recognition using a *Training and Recognition Index* variable, following the additive approach suggested by MacDuffie (1995). Specifically, we constructed an index of these two HR practices with values ranging from 0 (no practice present), to 1 (either practice present), to 2 (both practices present).

Control variables

We controlled for volunteer roles, ranks, and organizational sponsor at the contextual level. Volunteer roles differ by the type of unit (Troop/Pack/Crew/Ship/Team) and respective ranks within the unit. Within the 2016 data set, Troop (N = 2,478; 47%) and Pack (N = 2,586; 49%) units had the largest shares of volunteers, followed by Crew units (N = 222; 4%). We constructed *Unit type: Pack* as a dichotomous variable that compares Pack units with other units (Pack = 1; Other units = 0). We isolated Pack units for comparison because volunteers in the Pack units serve a younger population (“Cub Scouts”—generally from grade 1 to grade 5), compared with other scouting units.

We constructed the *unit rank (ordinal)* variable to measure differences in rank positions within the units in 2016. For *unit rank (ordinal)*, we assume that there are no hierarchical differences between volunteers in leadership teams and committee teams—leadership and committee are only different in terms of functions. However, within leadership/committee, we coded the hierarchical relationships for each position. For example, within Troop Committee, the chairman is coded as 1; the Committee member is coded as 2; unit secretary and training chairman is coded as 3; and chartered organization representative is coded as 4.

Faith-based sponsor is a dichotomous variable indicating whether the volunteer unit is sponsored by a faith-based organization (sponsored by a faith-based organization = 1; otherwise = 0), usually a church or a parish. Other organizational sponsors include foundations (e.g., Camp Sertoma Foundation), public charities (e.g., local parent-teacher associations and youth centers), and public organizations (e.g., fire departments, parks and recreation departments, etc.).

We also included individual level control variables of *age* (in years, reported in 2016), *gender* (female = 1; male = 0), and *race* (white = 1; other = 0). Finally, we used *Eagle Scout* as a proxy for volunteer commitment (received Eagle Scout rank = 1; no Eagle Scout rank = 0) among the male volunteers, because Eagle Scout is the highest designation one can obtain in the scouting program (beyond the achievement of Life Scout). Nationally, only about 5 percent of all Boy Scouts receive the Eagle Scout rank (National Eagle Scout Association, 2017). Therefore, this achievement signals strong commitment to the BSA and the scouting program, and Eagle Scouts were found to be more involved in community activities (Kim, Jang, & Johnson, 2016; Polson, Kim, Jang, Johnson, & Smith, 2013).

Data analysis

We tested differences of means in the bivariate analysis, to examine the relationship between independent/control variables and the turnover outcome. We estimated the association of the variables using logistic regression models. Model 1 (N = 6,292) and Model 2 (N = 5,297), as the baseline models, only include individual-level and contextual-level control variables, respectively. Model 3 (N = 4,310) examines the effect of volunteer training (optional unit-level training) and recognition (discretionary awards) on the likelihood of volunteer turnover, controlling for individual and contextual characteristics. As a robustness check, Model 4 adds the *Eagle Scout* variable as a measure of organizational commitment on the subset of male

volunteers (N = 2,912). Findings from this model led us to conduct a post-hoc analysis as presented in Model 5 (N = 4,310), where we included an interaction effect between training and gender to test whether volunteers in different gender categories responded to training differently.ⁱⁱ The results for the abovementioned models are reported in Table 3 as odds ratios (e^{β}). The Additive Approach Model (N = 4,310) in Table 4 examines the bundling effect of HR practices. We included the *Training and Recognition Index*, controlling for individual and contextual characteristics.

Results

The descriptive statistics (Table 1) illustrate that approximately 34 percent of volunteers participated in training, and about 11 percent of volunteers received formal recognition in the form of discretionary awards through the BSA.ⁱⁱⁱ There were 277 (about 4%) volunteers who received both training and recognition. The 2016 volunteer population was mostly male (69%) and mostly white (95%), with an average age of 46 years. A majority (70%) of the volunteers were sponsored by a faith-based organization.

The bivariate analysis in Table 2 shows statistically significant differences between those volunteers who stayed (i.e., no turnover) and those who left for all variables. However, when considering effect sizes (Cohen's d), the magnitude of the differences was mostly small-to-medium. In particular, both Eagle Scout status ($t = 2.061$, $p < 0.05$, Cohen's $d = 0.09$) and race ($t = 2.872$, $p < 0.01$, Cohen's $d = 0.109$) present a significant but rather trivial effect. This means that, despite the differences, the distribution of the independent variables overlaps to a large extent for the groups of volunteers who stayed and for those who left. There are likely other factors that play a more important role in determining volunteer turnover but were not captured by our data set. We further discuss this in our recommendations for future research.

Preliminary results suggest that recognition, Eagle Scout status (for male volunteers), faith-based organizational sponsorship, age, and race were all positively correlated with retention and contributed to lower turnover. Higher turnover is associated with lower ranks in the units. However, training, volunteer assignment into Pack units, and gender were negatively associated with retention. For example, female volunteers were more likely to discontinue volunteering than male volunteers. Finding gender differences is consistent with previous research; Wymer and Samu (2002) find that, among volunteers in two U.S. mid-western cities, male volunteers contributed more hours than female volunteers. The BSA context and our initial findings, together with results from multivariate analysis, lead us to consider whether volunteers of different genders responded differently to organizational management strategies, particularly in an organization with such a strong gender imbalance.

<Table 2 about here>

We hypothesized that both recognition (H1) and training (H2) would be negatively related to the likelihood of actual volunteer turnover. Results from Model 3 (see Table 3) show dominant patterns arising from recognition and training, controlling for demographics, volunteer roles and ranks, and type of sponsoring organization. We found supportive evidence for Hypothesis 1: recognition through discretionary awards showed a negative effect on volunteer turnover. In contrast to the bivariate analysis, we did not find evidence supporting Hypothesis 2 in Model 3. Although the model reported a negative effect for training on turnover, the effect was not significant at the 0.1 level.

Results from Model 1 to Model 3 consistently suggest that white volunteers were less likely to leave. In terms of unit type, volunteers serving the lower age group of scouts (i.e., Cub Scouts) in the Pack units were more likely to leave, compared with those in other types of units.

Based on their volunteer position rank within the unit, in general, higher ranking volunteers were more likely to stay than lower ranking volunteers. Both Model 1 and Model 3 reported that female volunteers were more likely to leave.

We conducted post-hoc analyses in order to answer two questions: Do recognition and training still show significant effects for more committed volunteers? Are the effects of recognition and training moderated by gender? We took the subsample of male volunteers in Model 4 to control for the effect of Eagle Scout status, which captures the most committed Boy Scout volunteers. The results show that both recognition and training significantly decreased the likelihood of turnover, after controlling for their Eagle Scout status. Moreover, Eagle Scout status had a similar effect size as recognition and training. Specifically, for the male volunteer group, Eagle Scouts were 29 percent less likely to turnover, discretionary award recipients were also 29 percent less likely to leave, and training recipients were 21 percent less likely to leave.

We further explored a possible interaction effect between gender and training. Based on Model 5 with the interaction term, findings show that (1) training (odds ratio = 0.779, $p < 0.05$) was significantly associated with volunteer turnover, (2) the effect of training was also moderated by gender (training*gender, odds ratio = 1.409, $p < 0.05$), and (3) the discretionary award recipients (odds ratio = 0.659, $p < 0.05$) were 34 percent less likely to turnover.^{iv} Overall, the average marginal effects for gender ($dy/dx = 0.037$, $p = 0.005$) was significant at 0.01 level; but the average marginal effects for training was only significant for the male population ($dy/dx = -0.034$, $p = 0.022$).

To illustrate the interaction effect of training and gender, Figure 1 shows that both male and female volunteers who had not participated in training shared similar turnover results. However, while training effectively reduced the probability of turnover for male volunteers, it

did not help retain female volunteers in the same way. Although we note that the magnitude of the training effect as shown in Figure 1 is small, the finding implies that training for the male volunteers at the BSA was more effective with regards to turnover as compared to their female counterparts.

<Table 3 about here>

<Figure 1 about here>

As a robustness check for recognition, we estimated Model 3 to Model 5 using “Confirmatory Award” instead of “Discretionary Award.” We have found no significant evidence (at the 0.1 level) for a negative link between recognition through confirmatory awards and actual turnover. This finding suggests that volunteer recognition through discretionary awards is more effective than confirmatory awards for the general volunteer population. In addressing the possible selection bias, we also estimated Model 3 on the subset of Eagle Scout volunteers (N = 668), who are some of the most committed volunteers in the BSA. We found no effect of discretionary awards and training among these top performers on actual turnover. The results suggest that discretionary awards may be most effective for less committed volunteers (results available upon request).

Finally, we hypothesized that using both training and recognition as a bundle of HR practices would decrease actual volunteer turnover (H3). Results from the Additive Approach Model (see Table 4) suggest that the presence of one more HR practice significantly lowers the likelihood of actual turnover by 17 percent at the 0.05 level, holding the individual and contextual factors constant. Alternatively, we tested the robustness by generating two dummy variables from the *Training and Recognition Index* to estimate the effects of receiving either one practice or both practices, compared with no HR practices at all, and we found similar effects for

the HR bundle. Since the two models—the Additive Model in Table 4 and Model 3 in Table 3—are not nested, we compared the model fit using AIC and BIC (reported in both tables). Although Model 3 reports a lower AIC value, the difference (0.428) between the two models suggests that both are similar with regards to the goodness-of-fit. On the other hand, the BIC statistics show positive evidence for the Additive Model (difference = 5.94) as the better fit (Kass & Raftery, 1995; Kuha, 2004).

Since the effect of training varied by gender, we further estimated two models for each gender category separately and found that the bundling effect was largely driven by male volunteers. While we found a significant bundling effect (odds ratio = 0.733; $p < 0.01$) for male volunteers, the effect for female volunteers was inconclusive (odds ratio = 1.059, $p = 0.67$).

Discussion and Contributions

Human resource practices can be vital tools for mitigating turnover in the context of paid employees. To date, we do not fully understand the mechanism between HR practices and volunteer turnover (Alfes et al., 2016); this paper, therefore, provides an important step towards this endeavor. Our findings show that HR practices play an essential role in volunteer retention; consequently, this study contributes to existing literature and research in multiple ways.

First, this study contributes to the underdeveloped knowledge based regarding the impact of HR practices on volunteer retention and, thus, answers calls for more research (Alfes et al., 2016). Recognizing volunteers through discretionary awards and providing them with training, as evident in this study, are two HR practices that improve volunteer retention. Particularly, we found that recognizing volunteers through discretionary awards significantly decreased rates of turnover. This finding contributes to the emerging literature investigating the impact of awards on performance (Frey & Gallus, 2017; Frey & Gallus, 2018; Gallus, 2016), indicating that

discretionary awards positively impact subsequent performance. As we study awards in a non-virtual field, we also contribute to closing this previously identified research gap (Gallus, 2016; Zhang & Zhu, 2011).

A more nuanced picture emerged for training. Training has a positive effect on retention for men, however, training was not an effective retention strategy for female volunteers in this study. There are a few potential reasons for this finding. For instance, men may be more attuned to the training delivery methods (e.g., online vs. face-to-face, the specific trainer, etc.) as well as the content of the training. Moreover, men may be reinforced in their commitment to the Boy Scouts after training. On the other hand, women may have certain expectations regarding their volunteer role and find out during training that their expectations will not be met and, thus, decide to drop out. Furthermore, the Boy Scouts is a highly gendered membership organization; as such, the male-dominated culture of the organization may lead decision makers to design and implement trainings that are implicitly more targeted towards the needs and expectations of men. We discussed our findings with BSA staff members during focus groups and, overall, they supported these potential reasons. Given the data sources we have, it is not entirely clear if one of these potential reasons holds true from the perspective of the volunteers; future research is needed to unpack this finding. We especially recommend studying volunteers' evaluation of training, since there is prior evidence that volunteers tend to evaluate training more negatively when they do not perceive opportunities to express their opinions during training, which ultimately influences their commitment and satisfaction (Costa, Chalip, Green, & Simes, 2006). In addition to our above speculations, it may be likely that positive evaluations of training lead to increased retention among men, but not among women.

We also explored the HR bundling perspective in the volunteer context and found that the HR bundle index consisting of training and recognition had a significant effect on volunteer turnover. We found that this model had slightly better model fit than testing for HR practices separately; however, future research might want to replicate our study to verify this finding. In order to be effective, HR bundles should be “interrelated and internally consistent” (MacDuffie, 1995, p. 204). Having internally consistent HR practices implies a certain level of intentionality or strategic intent. Whereas we were able to test the additive impact of recognition and training in this sample of Boy Scout volunteers, our data did not allow us to assess the level of strategic intent behind the configuration of these HR practices. Further qualitative research is needed to learn about the design of these HR practices.

Overall, our findings verify previous research in the volunteer context that investigated self-reported intentions to quit/stay (Henderson & Sowa, 2017) or that used information provided by organization members about retention problems (Hager & Brudney, 2008). Even though training and recognition are prevalent HRM strategies used for volunteers as well as for paid employees (Guo, Brown, Ashcraft, Yoshioka, & Dong, 2011; Walk, Schinnenburg, & Handy, 2014), there are other HR practices predominantly used among paid employees—such as performance management (Walk & Kennedy, 2017)—that could potentially be adapted to and tested in the volunteer context.

HR research has emphasized the importance of individual perceptions of HR practices on the effectiveness of those practices (Nishii, Lepak, & Schneider, 2008). Given the use of administrative data, we were not able to capture individual perceptions. However, we agree with Studer and von Schnurbein (2013) that organizational and individual factors have to be considered alongside each other to successfully manage volunteers. Whereas organizations

should focus on strategically developing HR practices to improve volunteer outcomes, they also have to be mindful of volunteer attitudes, assumptions, and expectations towards volunteer work. For instance, previous research indicates the importance of studying volunteer motives (Willems & Walk, 2013) and volunteer satisfaction (Hurst, et al., 2017), especially in relationship to volunteer retention (Garner & Garner, 2011; Gazley, 2013). In particular, Newton and colleagues (2014) find that volunteer motives moderate the relationship between perceived training and intentions to stay; therefore, future studies should complement administrative data with survey data to obtain both objective and subjective information on volunteer motives and satisfaction, HR practices, and other salient constructs. Survey data has two other potential benefits: first, models integrating both organizational and individual factors will likely yield higher levels of explained variance as compared to our findings. Second, survey instruments can also be designed to further control for potential selection bias between awards and performance as discussed earlier.^v

As obtaining systematic information on volunteer retention has been regarded as “near to impossible” (Henderson & Sowa, 2017, p. 7), this study also makes important methodological contributions. In contrast to previous research, which mostly relied on cross-sectional, self-reported data, we were able to use information on actual HR practices as well as turnover information by drawing on administrative data collected by one organization over time, thus overcoming previous methodological limitations (Podsakoff et al., 2003).

The use of an administrative data set with all the associated benefits, however, still includes some unique limitations. For instance, we are limited to the information the organization collects on a regular basis. For example, this data set does not capture whether or not volunteers have children who are or have been Boy Scouts. Anecdotal evidence, however,

suggests that volunteers may leave once their children drop out of the program. Future studies may want to capture that information to establish an empirical relationship. We also do not know when volunteers received the awards (during 2016 or prior to that) and if volunteers received more than one award. Similarly, it is unclear when training took place and if the volunteers participated in one or multiple trainings. We encourage researchers to study the time effect between recognition/training and subsequent turnover as one could speculate that the impact of receiving an award or participating in training may wane over time. Moreover, just reporting whether or not volunteers have received training does not give an indication of the perceived quality of training, which may be an important indicator that future studies might want to include (McMullen & Schellenberg, 2003). Another limitation pertains to the fact that we only studied one nonprofit organization and, even though our data set is large and provides rich information, findings may not be generalizable to other organizations or volunteer populations. We encourage other researchers to replicate our findings in different contexts to explore whether or not similar relationships emerge. As such, we would at least expect to see similar tendencies in other gendered membership organizations (e.g., Girl Scouts, professional associations that have majority female membership such as nursing, etc.).

Our study also has implications for practice. Understanding the factors that contribute to volunteer turnover allows nonprofit organizations to develop strategies to improve volunteer retention and to channel their resources into the most effective strategies. Similar to prior research (Fallon & Rice, 2015; Kovacs & Black, 2000; Gallus, 2017), we found that recognizing volunteers through awards is an effective management tool to increase future volunteer retention rates. We recommend that volunteer managers pay particular attention to recognition strategies, especially as these can be easily implemented and tend to be cost-effective. However, we

recommend being intentional about the kind and number of awards to be implemented, because ‘more is not always better.’ It is important to ensure that receiving an award is considered an honor. Awards, as a recognition activity, can also backfire and negatively impact those who did not receive awards; those individuals may feel discouraged in their volunteer commitment (Frey & Gallus, 2017). Future studies might want to include measures of the importance of recognition as an additional factor to tease out this effect.

Training, as an HR practice, might be more difficult to implement, as it requires more time and monetary commitment from organizations. However, training provides volunteers with the opportunity to increase their skills and knowledge and helps to prepare them for their volunteer tasks (Saksida et al., 2016). We were only able to detect that women and men behave differently after having received training due to a large enough data set. Generally, we encourage volunteer managers to collect data on their volunteers in a systematic fashion and to critically analyze the collected information for potentially adverse impacts.

In addition to the aforementioned suggestions for future research, some of the control variables warrant further exploration. Particularly, we find that being affiliated with a faith-based organization predicted lower turnover as compared to being affiliated with a secular organization. Prior research has long shown that religious individuals (or “churchgoers”) are more likely to volunteer (Ruiter & De Graaf, 2006) and that health benefits of volunteering are more positive for religious volunteers (McDougle, Konrath, Walk, & Handy, 2016). Future studies may want to disentangle this finding and look at potential variance within faith-based sponsoring organizations. As previous research has established that members of different faith-based groups have different volunteer rates (Cnaan & Curtis, 2013; Ruiter & De Graaf, 2006), it

is not yet clear if a similar pattern emerges for faith-based sponsoring organizations in the context of the BSA.

Managing volunteers is a difficult undertaking. Despite the aforementioned limitations, this study contributes to a more nuanced understanding of volunteer turnover by assessing the effect of two HR practices. Particularly we show that recognition and training can have a positive impact on future volunteer retention.

References

- Alfes, K., Antunes, B., & Shantz, A. D. (2016a). The management of volunteers – what can human resources do? A review and research agenda. *The International Journal of Human Resource Management*, 28(1), 62-97.
- Alfes, K., & Langner, N. (2017). Paradoxical leadership: Understanding and managing conflicting tensions to foster volunteer engagement. *Organizational Dynamics*, 46(2), 96-103.
- Alfes, K., Shantz, A., & Bailey, C. (2016b). Enhancing volunteer engagement to achieve desirable outcomes: What can non-profit employers do? *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 27(2), 595-617.
- Alfes, K., Shantz, A., & Saksida, T. (2015). Committed to whom? Unraveling how relational job design influences volunteers' turnover intentions and time spent volunteering. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 26(6), 2479-2499.
- Bartram, T., Cavanagh, J., & Hoye, R. (2017). The growing importance of human resource management in the NGO, volunteer and not-for-profit sectors. *The International Journal of Human Resource Management*, 28(14), 1901-1911.

- Bureau of Labor Statistics. (2016). Volunteering in the United States - 2015. U.S. Department of Labor.
- Clary, E. G., Snyder, M., & Ridge, R. (1992). Volunteers' motivations: A functional strategy for the recruitment, placement, and retention of volunteers. *Nonprofit Management and Leadership*, 2(4), 333-350.
- Cnaan, R. A., & Cascio, T. A. (1998). Performance and commitment: Issues in management of volunteers in human service organizations. *Journal of Social Service Research*, 24(3-4), 1-37.
- Cnaan, R. A., & Curtis, D. W. (2013). Religious congregations as voluntary associations: An overview. *Nonprofit and Voluntary Sector Quarterly*, 42(1), 7-33.
- Cnaan, R. A., Handy, F., & Wadsworth, M. (1996). Defining who is a volunteer: Conceptual and empirical considerations. *Nonprofit and Voluntary Sector Quarterly*, 25(3), 364-383.
- Corporation for National and Community Service. (2015). State Rankings by Volunteer Retention Rate. Retrieved from <https://www.nationalservice.gov/vcla/state-rankings-volunteer-retention-rate>
- Costa, C. A., Chalip, L., Green, B. C., & Simes, C. (2006). Reconsidering the role of training in event volunteers' satisfaction. *Sport Management Review*, 9(2), 165-182.
- Delery, J. E., & Doty, D. H. (1996). Modes of theorizing in strategic human resource management: Tests of universalistic, contingency, and configurational performance predictions. *Academy of Management Journal*, 39(4), 802-835.
- Delery, J. E. (1998). Issues of fit in strategic human resource management: Implications for research. *Human Resource Management Review*, 8(3), 289-309.

- Fallon, B., & Rice, S. (2015). Investment in staff development within an emergency services organisation: Comparing future intention of volunteers and paid employees. *The International Journal of Human Resource Management*, 26(4), 485-500.
- Farmer, S. M., & Fedor, D. B. (1999). Volunteer participation and withdrawal. *Nonprofit Management and Leadership*, 9(4), 349-368.
- Frey, B. S., & Gallus, J. (2017). Towards an economics of awards. *Journal of Economic Surveys*, 31(1), 190-200.
- Frey, B. S., & Gallus, J. (2018). Volunteer Organizations: Motivating with Awards. In R. Ranyard (Ed.), *Economic Psychology* (pp. 273-286): John Wiley & Sons, Ltd.
- Gallus, J. (2016). Fostering public good contributions with symbolic awards: A large-scale natural field experiment at Wikipedia. *Management Science*, 63(12), 3999-4015.
- Garner, J. T., & Garner, L. T. (2011). Volunteering an opinion: Organizational voice and volunteer retention in nonprofit organizations. *Nonprofit and Voluntary Sector Quarterly*, 40(5), 813-828.
- Gazley, B. (2013). Predicting a volunteer's future intentions in professional associations: A test of the Penner Model. *Nonprofit and Voluntary Sector Quarterly*, 42(6), 1245-1267.
- Guo, C., Brown, W., Ashcraft, R., Yoshioka, C. F., & Dong, D. (2011). Strategic Human Resource Management in Nonprofit Organizations. *Review of Public Personnel Administration*, 31, 248-269.
- Grube, J. A., & Piliavin, J. A. (2000). Role identity, organizational experiences, and volunteer performance. *Personality and Social Psychology Bulletin*, 26(9), 1108-1119.

- Hager, M., & Brudney, J. (2008). Management Capacity and Retention of Volunteers. In M. Liao-Troth (Ed.), *Challenges in Volunteer Management* (pp. 9-27). Charlotte: Information Age Publishing.
- Handy, F., & Srinivasan, N. (2004). Valuing volunteers: An economic evaluation of the net benefits of hospital volunteers. *Nonprofit and Voluntary Sector Quarterly*, 33(1), 28-54.
- Henderson, A. C., & Sowa, J. E. (2017). Retaining Critical Human Capital: Volunteer Firefighters in the Commonwealth of Pennsylvania. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 1-26.
- Hurst, C., Scherer, L., & Allen, J. (2017). Distributive justice for volunteers: Extrinsic outcomes matter. *Nonprofit Management and Leadership*, 27(3), 411-421.
- Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38(3), 635-672.
- Kass, R. and Raftery, A. (1995). Bayes Factors. *Journal of the American Statistical Association*, 90, 773-795.
- Kim, Y.-I., Jang, S. J., & Johnson, B. R. (2016). Tying Knots With Communities: Youth Involvement in Scouting and Civic Engagement in Adulthood. *Nonprofit and Voluntary Sector Quarterly*, 45(6), 1113-1129.
- Kovacs, P. J., & Black, B. (2000). Volunteerism and older adults: Implications for social work practice. *Journal of Gerontological Social Work*, 32(4), 25-39.
- Kuha, J. (2004). AIC and BIC comparisons of assumptions and performance. *Sociological Methods & Research*, 33(2), 188-229.

- Liao-Troth, M. A. (2001). Attitude differences between paid workers and volunteers. *Nonprofit Management and Leadership*, 11(4), 423-442.
- Macky, K., & Boxall, P. (2007). The relationship between 'high-performance work practices' and employee attitudes: an investigation of additive and interaction effects. *The International Journal of Human Resource Management*, 18(4), 537-567.
- McDougle, L., Konrath, S., Walk, M., & Handy, F. (2016). Religious and Secular Coping Strategies and Mortality Risk among Older Adults. *Social Indicators Research*, 125(2), 677-694.
- McMullen, K. E., & Schellenberg, G. (2003). *Job quality in non-profit organizations* (Vol. 1). Ottawa: CPRN= RCRPP.
- National Eagle Scout Association. (2017). Trail to Eagle. Retrieved from <http://www.nesa.org/trail.html>
- Nencini, A., Romaioli, D., & Meneghini, A. M. (2016). Volunteer motivation and organizational climate: Factors that promote satisfaction and sustained volunteerism in NPOs. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 27(2), 618-639.
- Newton, C., Becker, K., & Bell, S. (2014). Learning and development opportunities as a tool for the retention of volunteers: a motivational perspective. *Human Resource Management Journal*, 24(4), 514-530.
- Nishii, L. H., Lepak, D. P., & Schneider, B. (2008). Employee Attributions of the "why" of HR Practices: Their Effects on Employee Attitudes and Behaviors, and Customer Satisfaction. *Personnel Psychology*, 61, 503-545.

- Pearce, J. L. (1983). Job attitude and motivation differences between volunteers and employees from comparable organizations. *Journal of Applied Psychology*, 68(4), 646.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Polson, E. C., Kim, Y. I., Jang, S. J., Johnson, B. R., & Smith, B. (2013). Being prepared and staying connected: Scouting's influence on social capital and community involvement. *Social Science Quarterly*, 94(3), 758-776.
- Presti, A. L. (2013). The interactive effects of job resources and motivations to volunteer among a sample of Italian volunteers. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 24(4), 969-985.
- Ripamonti, C. A., Pasquarelli, L., Ravasi, S., & Sala, F. C. (2016). Dropout of Hospital Volunteers in Italy. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 28(1), 44-68.
- Rogers, S. E., Jiang, K., Rogers, C. M., & Intindola, M. (2016). Strategic human resource management of volunteers and the link to hospital patient satisfaction. *Nonprofit and Voluntary Sector Quarterly*, 45(2), 409-424.
- Ruiter, S., & De Graaf, N. D. (2006). National context, religiosity, and volunteering: Results from 53 countries. *American Sociological Review*, 71(2), 191-210.
- Saksida, T., Alfes, K., & Shantz, A. (2016). Volunteer role mastery and commitment: can HRM make a difference? *The International Journal of Human Resource Management*, 1-23.
- Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2). San Francisco, CA: John Wiley & Sons.

- Schlesinger, T., Egli, B., & Nagel, S. (2013). 'Continue or terminate?' Determinants of long-term volunteering in sports clubs. *European Sport Management Quarterly*, 13(1), 32-53.
- Schwarz, N., & Oyserman, D. (2001). Asking questions about behavior: Cognition, communication, and questionnaire construction. *American Journal of Evaluation*, 22(2), 127-160.
- Simon, H. A. (1951). A formal theory of the employment relationship. *Econometrica: Journal of the Econometric Society*, 19(3), 293-305.
- Smith, S. L., & Grove, C. J. (2017). Bittersweet and Paradoxical: Disaster Response Volunteering with the American Red Cross. *Nonprofit Management and Leadership*, 27(3), 353-369.
- Studer, S., & von Schnurbein, G. (2013). Organizational factors affecting volunteers: A literature review on volunteer coordination. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 24(2), 403-440.
- Walk, M., & Kennedy, T. A. (2017). Making Nonprofits more Effective: Performance Management and Performance Appraisals. In J. E. Sowa & J. Word (Eds.). *The Nonprofit Human Resource Management Handbook: From Theory to Practice*. (Vol. 1, pp. 250-267). New York, NY: Taylor & Francis.
- Walk, M., Schinnenburg, H., Handy, F. (2014). Missing in Action: strategic human resource management in German nonprofits. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 25(4): 991-1021.
- Willems, J., & Walk, M. (2013). Assigning volunteer tasks: The Relation between task preferences and functional motives of youth volunteers. *Children and Youth Services Review*, 35, 1030-1040.

- Wu, Y., Li, C., & Khoo, S. (2016). Predicting future volunteering intentions through a self-determination theory perspective. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 27(3), 1266-1279.
- Wymer Jr, W. W., & Samu, S. (2002). Volunteer service as symbolic consumption: Gender and occupational differences in volunteering. *Journal of Marketing Management*, 18(9-10), 971-989.
- Zhang, X., & Zhu, F. (2011). Group size and incentives to contribute: A natural experiment at Chinese Wikipedia. *American Economic Review*, 101(4), 1601-1615.

Table 1. Descriptive Statistics, BSA, 2016-2017

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max	(6) skewness	(7) kurtosis	(8) p50
<i>Dependent Variable</i>								
Turnover	7,595	0.127	0.333	0	1	2.236	6.000	0
<i>Independent Variables</i>								
Training (= 1)	7,595	0.335	0.472	0	1	0.699	1.488	0
Discretionary award (= 1)	7,595	0.106	0.308	0	1	2.562	7.565	0
Training and Recognition Score	7,595	0.441	0.565	0	2	0.839	2.684	0
Eagle Scout (= 1) ⁺	5,234	0.203	0.402	0	1	1.480	3.192	0
<i>Control Variables: Contextual Factors</i>								
Unit type: Pack (= 1)	5,316	0.486	0.500	0	1	0.0549	1.003	0
Unit rank (ordinal)	5,297	2.545	1.109	1	5	0.581	2.205	2
Faith-based sponsor (= 1)	5,316	0.698	0.459	0	1	-0.864	1.746	1
<i>Control Variables: Individual Factors</i>								
Age	7,595	45.53	12.55	18	106	0.270	3.730	45
Gender (Female = 1)	7,595	0.311	0.463	0	1	0.817	1.667	0
Race (White = 1)	6,292	0.945	0.227	0	1	-3.924	16.40	1

⁺The Eagle Scout variable is only applicable to male volunteers, within a subsample of 5,234 volunteers.

Table 2. BSA Turnover Results – Differences of Means, 2016-2017

VARIABLES	No Turnover		Turnover		t-test	Effect size	
	N	mean	N	mean		Cohen's <i>d</i> [¶]	[95% C.I.]
<i>Independent Variables</i>							
Training (= 1)	6,628	0.318	967	0.451	-8.201***	0.282	(0.21, 0.35)
Discretionary award (= 1)	6,628	0.112	967	0.063	4.634***	0.160	(0.092, 0.23)
Training and Recognition Score	6,628	0.430	967	0.514	-4.305***	0.148	(0.081, 0.22)
Eagle Scout (= 1) [†]	4,647	0.207	587	0.170	2.061*	0.0903	(0.0044, 0.18)
<i>Control Variables: Contextual Factors</i>							
Unit type: Pack (= 1)	4,359	0.469	957	0.563	-5.272***	0.188	(0.12, 0.26)
Unit rank (ordinal) [†]	4,341	2.503	956	2.738	-5.968***	0.213	(0.14, 0.28)
Faith-based sponsor (= 1)	4,359	0.708	957	0.654	3.288**	0.117	(0.047, 0.19)
<i>Control Variables: Individual Factors</i>							
Age	6,628	45.96	967	42.54	7.957***	0.274	(0.21, 0.34)
Gender (Female = 1)	6,628	0.299	967	0.393	-5.908***	0.203	(0.14, 0.27)
Race (White = 1)	5,505	0.949	787	0.924	2.872**	0.109	(0.035, 0.18)

Note:

****p*<0.001, ***p*<0.01, **p*<0.05.

[†] The Eagle Scout variable is only applicable to male volunteers, within a subsample of 5,234 volunteers.

[†] The unit rank variable ranges from 1 to 5, with 1 indicating the highest rank and 5 the lowest.

[¶] Absolute values were used to report the Cohen's *d* effect sizes. Following the convention, an effect of 0.2 is considered as *small*; an effect of 0.5 is considered as *medium*.

Table 3. Logistic regression results – Odds ratios reported (Dependent Variable = Turnover result in 2017)

VARIABLES	Model 1 Individual	Model 2 Contextual	Model 3 Predictor + Control	Model 4 Eagle Scout	Model 5 Training * Gender
<i>Independent Variables</i>					
Training (= 1)			0.888 (0.0778)	0.787* (0.0883)	0.779* (0.0850)
Training * Gender					1.409* (0.238)
Discretionary Award (= 1)			0.654* (0.114)	0.708† (0.141)	0.659* (0.115)
<i>Control Variables: Contextual Factors</i>					
Unit type: Pack (= 1)		2.036*** (0.191)	1.848*** (0.200)	1.616** (0.230)	1.873*** (0.203)
Unit rank order = 2		3.206*** (0.490)	3.351*** (0.582)	2.953*** (0.646)	3.357*** (0.583)
Unit rank order = 3		6.768*** (1.319)	9.208*** (2.048)	8.504*** (2.318)	9.480*** (2.116)
Unit rank order = 4		2.234*** (0.350)	2.708*** (0.483)	2.610*** (0.589)	2.691*** (0.480)
Unit rank order = 5		3.180*** (0.664)	3.597*** (0.860)	3.053*** (0.935)	3.551*** (0.849)
Faith-based sponsor organization (= 1)		0.834* (0.0651)	0.873 (0.0772)	0.830 (0.0949)	0.873 (0.0772)
<i>Control Variables: Individual Factors</i>					
Age	0.980*** (0.00311)		1.001 (0.00375)	0.994 (0.00494)	1.000 (0.00376)
Gender (Female = 1)	1.532 *** (0.121)		1.272** (0.110)		1.089 (0.126)
Race (White = 1)	0.654** (0.0975)		0.711* (0.113)	0.660* (0.137)	0.712* (0.114)
Eagle Scout (= 1) male volunteer				0.713* (0.120)	
Constant	0.452*** (0.0907)	0.0620*** (0.0105)	0.0777*** (0.0234)	0.152*** (0.0602)	0.0830*** (0.0251)
Observations	6,292	5,297	4,310	2,912	4,310
Pseudo R ²	0.0166	0.0296	0.0407	0.0385	0.0417
LR Chi ²	78.56	148.1	165.4	99.47	169.5
AIC	4,672.664	4,867.514	3,925.659	2,508.523	3,923.568
BIC	4,699.652	4,913.539	4,002.083	2,580.242	4,006.361

Note: Standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, †p<0.1 (two-tailed).

Figure 1. Predictive Margins for Training and Gender with 95% Confidence Interval

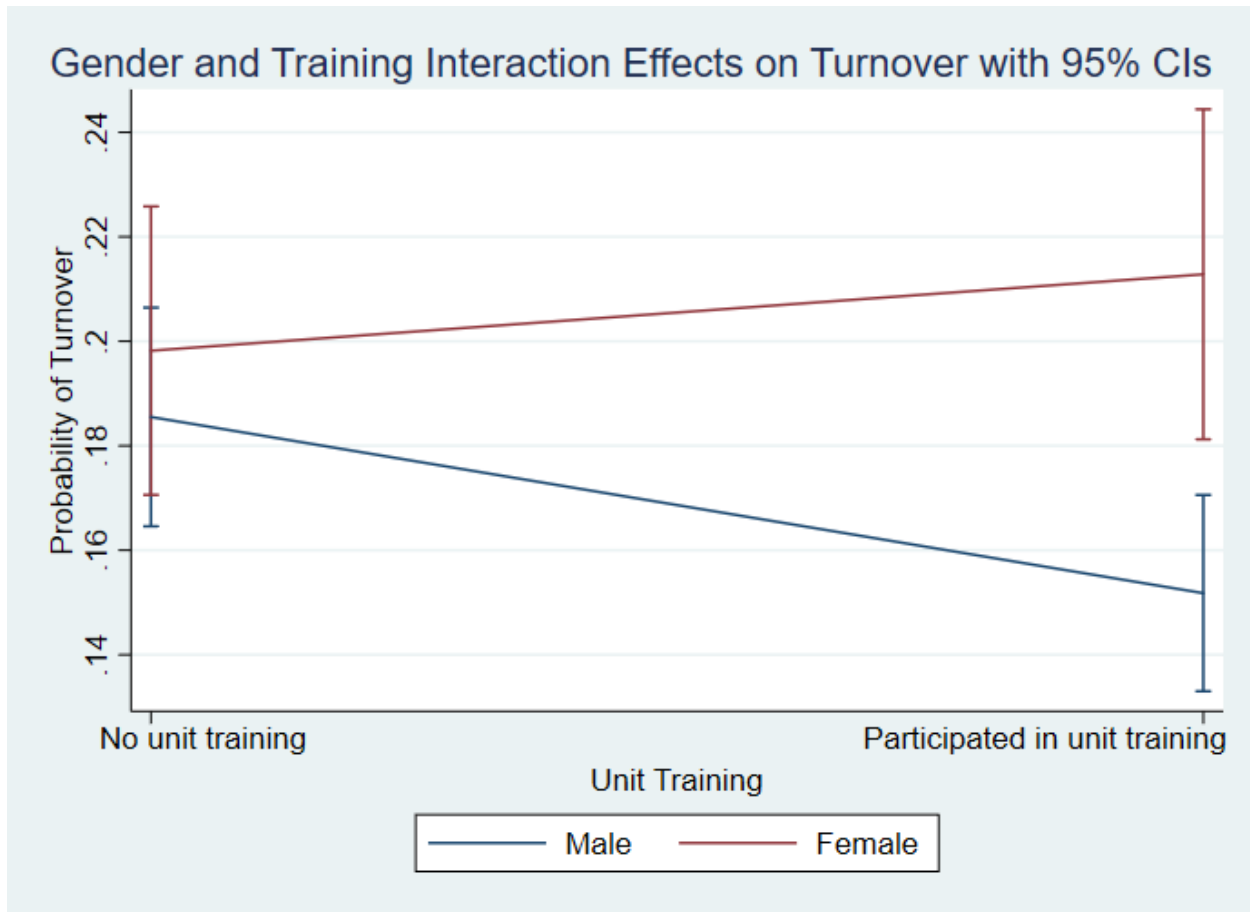


Table 4. HR practices bundle: logistic regression results – Odds ratios reported
(Dependent Variable = Turnover result in 2017)

VARIABLES	Additive Approach Model	Male Only Subsample	Female Only Subsample
<i>Independent Variable</i>			
Training and Recognition Index	0.829* (0.0627)	0.733** (0.0683)	1.059 (0.143)
<i>Control Variables: Contextual Factors</i>			
Unit type: Pack (= 1)	1.879*** (0.202)	1.721*** (0.239)	2.215*** (0.393)
Unit rank order = 2	3.309*** (0.574)	2.949*** (0.644)	4.015*** (1.148)
Unit rank order = 3	9.165*** (2.039)	8.374*** (2.280)	11.43*** (4.551)
Unit rank order = 4	2.687*** (0.479)	2.626*** (0.591)	2.840*** (0.832)
Unit rank order = 5	3.595*** (0.859)	3.106*** (0.951)	4.557*** (1.766)
Faith-based sponsoring organization (= 1)	0.874 (0.0772)	0.824* (0.0939)	0.943 (0.132)
<i>Control Variables: Individual Factors</i>			
Age	1.003 (0.00348)	0.999 (0.00417)	1.007 (0.00714)
Gender (Female = 1)	1.292** (0.111)		
Race (White = 1)	0.712* (0.113)	0.694† (0.142)	0.737 (0.188)
Constant	0.0717*** (0.0212)	0.107*** (0.0394)	0.0492*** (0.0256)
Observations	4,310	2,912	1,398
Pseudo R2	0.0401	0.0365	0.0400
LR Chi2	163	94.21	58.56
AIC	3,926.087	2,509.779	1,425.615
BIC	3,996.143	2,569.545	1,478.043

Note: Standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, †p<0.1 (two-tailed).

Notes:

ⁱ Using the modified identifier, we were able to merge 6,538 entries in both data sets. The remaining unmerged entries (1,059 entries from 2016 and 498 entries from 2017) were investigated to ensure proper merging procedures. Initially, some entries could not be merged as the more complex code—due to duplication in one data set—did not correspond to the identifier in the other data set. Moreover, for some entries, the age variable in 2017 was not properly coded and, as such, individuals retained the same age across years, which meant an automatic merge did not happen. After investigating these issues manually, an additional 91 records could be merged.

ⁱⁱ Considering wide-ranging volunteer ages, we ran the same set of models on several subsamples, for example, excluding observations at the top and the bottom 1 or 5 percent in terms of age values. We did not find qualitative differences except for the discretionary award variable in Model 3 as we excluded the top and the bottom 5 percent. The effect of discretionary awards became insignificant possibly as a significant number of discretionary award recipients were younger than 20 years old (at the bottom 5%).

ⁱⁱⁱ About 24 percent of volunteers received either a confirmatory award or a discretionary award.

^{iv} Odds ratios calculated using Stata.

^v We acknowledge that experiments where participants are randomized into control and treatment groups are superior to survey data in order to mitigate selection bias.