


Variations in Volunteer Use among Human Service Organizations in the USA

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Abstract Knowledge of volunteering and volunteer management requires understanding from both individual and organizational perspectives. However, most existing research focuses on individual volunteers and the supply side of volunteering, leaving the demand side substantially understudied. The present study examines the organizational perspective of volunteering, focusing on the differences in volunteer use among nonprofit organizations. In particular, this study tests how various organizational characteristics predict the size of the volunteer program in human service organizations in the USA. The results show that, controlling for revenue and employment size, the size of volunteer program is negatively associated with the proportion of business income, while it is not significantly associated with the proportion of charitable contributions and grants. This finding provides supports for the concerns that increasing commercialization of nonprofit organizations will weaken the role of volunteers in human service delivery. The results also reveal that the extent of volunteer use is positively associated with the culture of good governance within the organization as well as organizational involvement in political activities.

Keywords Demand for volunteers · Volunteer programs · Human service organizations

Introduction

Knowledge of volunteering and volunteer management requires understanding from both individual and organizational perspectives. Nonprofit organizations, as conduits of volunteering, differ greatly in their demand for and the use of volunteers as well as in other characteristics. However, much of the existing literature focuses on individual volunteers' motivation, i.e., the supply side of volunteering, and scant research has examined the demand side of volunteering and how volunteer demands vary across organizations (Hustinx et al. 2010).

One of the reasons for the paucity of demand-side research can be attributed to the indispensability of volunteer labor to many nonprofit organizations. Volunteers play an important role in nonprofit organizations' service delivery, working in partnership with paid staff (Handy et al. 2008). Studies reveal a shortage of qualified volunteers in nonprofit organizations and challenges in recruiting and retaining them (Wymer and Starnes 2001). In the USA, the demand for volunteers has continued to increase for a number of reasons, including the growing demand for nonprofit services, escalating competition for charitable funds and expanding involvement of faith-based organizations' in social service provision (Clerkin and Grønberg 2007; Nunnenkamp and Öhler 2012). Another reason for the lack of demand-side analysis is the false assumption that volunteers do not impose costs on organizations because they are not paid. With marginal costs of volunteer involvement for organizations being equal to zero, nonprofits always have an infinite demand for volunteers. However, scholars have shown that involving volunteers requires various types of expenses associated with recruiting, screening, managing, and recognizing volunteers (Brudney 2016; Hustinx, Cnaan, and Handy

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2010; Steinberg 1990). Further, a growing body of research suggests that organizations do not blindly accept all the volunteer labor offered to them, but make a conscious choice of their use of volunteers (Emanuele 1996; Handy and Srinivasan 2005). Scholars argue that organizations weigh the costs of involving volunteers against the costs of paid labor and other inputs and determine the amount of volunteer labor they will use (Emanuele 1996).

Recognizing that the demand for volunteer labor varies across organizations, scholars call for more demand-side research on volunteer involvement in nonprofit organizations (Handy and Brudney 2007; Handy and Srinivasan 2005). Understanding the organizational perspective on volunteering and exploring the variation in volunteer demand is essential to developing a more complete knowledge of volunteerism and volunteering. This focus on organization-level variation in volunteer use provides a “meso-level” view between the micro-level approach to understanding individual volunteers’ motives and the macro-level approach to studying societal values and government policies (Studer and von Schnurbein 2013, p. 406).

Responding to this call, the present study examines the variations of volunteer use in human service organizations (HSOs) in the USA and what contributes to the differences across organizations. Among all nonprofit organizations, volunteers are of particular importance to HSOs due to these organizations’ financial vulnerability and heavy reliance on volunteer labor in service delivery (Cnaan and Cascio 1998). HSOs provide a broad range of social services for individuals and families, including counseling, employment assistance, and substance abuse services (Guo 2006; National Center for Charitable Statistics 2016b). Homeless shelters, food banks, youth services, and family and legal services agencies are classified as HSOs in the USA. Facing an unfavorable economic conditions, including government cutbacks and increasing competition for private funding (Bittschi et al. 2015), these organizations turn to volunteer labor in order to cut costs.

This study examines how HSOs’ organizational characteristics predict their use of volunteers, focusing on the size of the volunteer program. In particular, this study tests if an HSO’s reliance on particular funding sources explains the number of volunteers in the organization. This study also examines how other demand factors, such as an organization’s non-program activities and organizational culture for good governance, predict the number of volunteers involved. The next session of the study discusses the theoretical background and its implication for nonprofit organizations’ use of volunteers. The subsequent sections present the hypotheses on nonprofits’ demand for volunteers, research method, and estimation results. This paper concludes with discussions of implications for volunteer

management in the era of increasing commercialization and diversity.

Nonprofit Organizations’ Use of Volunteers: Literature Review and Hypotheses

The purpose of this study is to examine how an HSO’s organizational characteristics explain its extent of volunteer use, measured by the number of volunteers involved in the organization. Understanding this relationship will improve the knowledge of demand-side of volunteering, which the existing research has not studied sufficiently. Various organizational conditions can affect a nonprofit’s incorporation of volunteers. This study focuses on an organization’s resource dependencies, its activities and good governance practices.

Revenue Mix and Volunteer Use

Resource dependence theory posits that an organization’s dependence on external environments for resources determines its behaviors (Pfeffer and Salancik 2003). A nonprofit organization’s reliance on different funding sources, i.e., its revenue structure, therefore has important implications for organizational priorities. Nonprofit organizations, public charities especially, rely on diverse activities and resource providers in order to support their programs, including fees for service, membership dues, private contributions, government grants, and investment income. Research also shows that there exists a significant variation in nonprofit organizations’ revenue mixes (Fischer et al. 2011). Nonprofits’ dependence on different funding sources, in turn, suggests dissimilarities in organizational priorities regarding the stakeholders across organizations.

The resource dependence theory posits that organizations make adaptive behaviors in order to respond to the demands from their environment and therefore, the patterns of dependence affect organizational attitudes and decision making (Pfeffer and Salancik 2003). The theory has had an enduring influence on the study of organizations across the disciplines. For instance, research in stakeholder theory adopts the resource dependence perspective and suggests that an organization’s approach to different groups of stakeholders is shaped by the interdependence between the organization and group. An organization’s reliance on different groups, then, creates power differentials among parties. The power relationship between an organization and these groups determines the organizational priorities and strategies (Frooman 1999; Mitchell et al. 1997; Wry et al. 2013). The public administration literature also explains that an organization’s dependence on different types of resources has an impact on the organization’s goal

setting, structure, and the composition of personnel (Bozeman and Moulton 2011). In particular, the dimensional publicness research reports that organizations relying on market-based resources rather than governmental funding have more market-like structures and personnel.

Although nonprofit organizations obtain their resources from various sources, two of the sources have the most practical and symbolic importance, respectively. First, the income source with the most practical importance is earned income. Studies report that incomes from fees for services and goods account for the largest part of all exempt nonprofits' revenue in the USA, not to mention public charities (McKeever 2015). Research also finds that nonprofits' reliance on commercial revenue has steadily increased regardless of type (Kerlin and Pollak 2011). Next, the income source with the most symbolic importance is charitable contributions. As Mark Moore (2000) explains, charitable contributions are the *defining and unique* source of revenue because they are set up exclusively to capture and channel philanthropic endeavors. Charitable contributions also provide nonprofit organizations with the social justification for their existence although they are not the largest or principal source of revenue to nonprofit organizations (Moore 2000).

Business Income and Use of Volunteers

According to the Urban Institute (2015), the income that 501(c)(3) nonprofits earned from commercial activities in 2013 accounted for an average of 72% of their total revenue. Nonprofits' earned income includes revenues from sales of goods, services rendered, or work performed. Nonprofits' engagement in these activities is generally driven by financial sustainability to support mission-related activities. The literature suggests that nonprofits' commercial activities have such consequences as more attention to market discipline, efficiency, and reduced cost structures (Dart 2004). At the same time, scholars are concerned that commercialization of nonprofit organizations has a negative influence on nonprofits' adherence to their social missions, causing mission drift (Phills and Chang 2005; Weisbrod 2004).

Along with other organizational consequences, the literature suggests that the expansion of commercial activities in a nonprofit organization has an important implication in terms of volunteer use. First, research suggests that increasing commercialization and focus on financial performance diverts nonprofit organizations from building social capital. Building social capital is one of the important functions of nonprofit organizations, and the accumulated social capital is an important asset not only to individual organizations, but also to society as a whole. Research also suggests that building social capital requires

a substantial investment of time in communicating a shared vision and collective goals (King 2004). Eikenberry and Kløver (2004) argue that nonprofit organizations' increasing commercial activities will weaken their role in social capital building, as these organizations have less need for building strong relationships with traditional nonprofit key stakeholders and constituents, including community volunteers. They further explain that the drives for commercial revenue and entrepreneurial strategies result in a shift of the organization's focus from creating networks of trust among stakeholders to creating opportunities for selling more products or services to individuals, endangering citizen engagement.

Second, evaluation of business activities is based on the calculation of costs and benefits in market transactions. Therefore, increasing reliance on commercial revenue suggests that nonprofits become more cost-conscious. Brudney (2016) points out that, unlike the common perception, involving volunteers in service delivery is not without a cost. Volunteer programs require expenditures, including the effort of paid labor to recruit, train, supervise, and recognize volunteers (Emanuele 1996). While these costs are relatively easy to measure, the improvement in the service quality that the volunteers bring may not be readily measurable on a short-term basis. Therefore, when an organization is driven by strong business logic, it may focus on short-term costs associated with volunteer involvement, rather than the invisible long-term benefits that the volunteers create. Backman and Smith's (2000) study provides an example of such consequences in their description of how a nonprofit art organization eliminated its volunteer program because the program was considered not worth the cost. Their findings suggest that HSOs that are more driven by business logic have less incentive to recruit and retain volunteers.

Lastly, the trend for commercialization is often accompanied by increasing professionalization, the belief that experts should be in charge (Salamon 1999). Individuals who identify themselves as paying customers rather than program beneficiaries may also demand services provided by professionals rather than volunteers. Hence, the growing trend of professionalization can lead to replacing volunteers with paid staff and minimizing volunteer involvement in organizational activities (Maier et al. 2016). Because volunteers have greater freedom in joining and leaving the organization, management has less control over their behaviors compared with paid employees (Nichols 2013; Vantilborgh and Van Puyvelde). Therefore, paid employees may be better suited than volunteers from the perspective of consistent service to customers (Ellis 2008). Nonprofit organizations may also prefer paid staff in certain positions to volunteers from the risk management perspective, as volunteering involves risk, both to

organizations and volunteers themselves, and therefore raises a liability issue (Ellis 2010). Although volunteers are protected from liabilities caused by their negligence when working for a government or nonprofit agency, the coverage varies widely across states, and liabilities regarding volunteer involvement often demand for insurance coverage (Goble and Brudney 2015; Martinez 2003). For these reasons, this study hypothesizes that HSOs with greater reliance on commercial income have a smaller volunteer program than those with a smaller proportion of such income.

Hypothesis 1 Human service organizations with a greater proportion of commercial revenue use fewer volunteers than those with a smaller proportion of commercial revenue.

Charitable Gifts and Grants and Volunteer Use

Although charitable donations are not necessarily the primary revenue source for nonprofit organizations and their share in the nonprofit revenue continues to decrease, they still are the defining source of revenue of nonprofit organizations (Moore 2000). Moore (2000) further explains that nonprofit organizations are unique in that they appeal to people's charitable aspirations in order to generate this type of revenue. He adds that, although other types of organizations may generate a part of their revenue from charitable contributions, this source of income generally does not make a significant impact on organizational priorities in other organizations as they do in nonprofit organizations.

Despite the symbolic importance of charitable contributions, the proportion of these sources in the revenue varies among organizations (Fischer et al. 2011). Therefore, importance of charitable donations and their impact on organizational priorities differs from one organization to another. Studies also find that nonprofits do not just passively accept donations, and their solicitation of donation is a goal-oriented and strategic behavior (Bryant et al. 2003). Depending on the strategic importance of donations to organizations, nonprofits exert different levels of efforts in soliciting help from outside.

The literature provides a couple of reasons why the importance of charitable contributions to a nonprofit organization may predict its volunteer use. First, research on individual monetary giving and volunteering reports that these two behaviors are closely related (Brown and Ferris 2007; Bryant et al. 2003). Most of all, the two charitable behaviors are based on an individual's concern for others and "giving spirit" (Houston 2006). Lee and Chang (2008) explain the close relationship between an individual's donation of money and time with the concept of role identity. Simply put, the concept suggests that both

types of giving behavior are motivated by psychological identification with the organization's mission. Studies show that volunteers are significantly more likely to donate to a charity than non-volunteers (Choi and DiNitto 2012; CNCS 2015). For example, CNCS (2015) reports that 80% of volunteers donated to charity in 2014, compared to 40% of non-volunteers. Given the common motivational basis of giving and volunteering, Susan J. Ellis (2003) states, "there are very blurry lines between volunteers and donors." She further asserts that a nonprofit's development office and volunteer service office must work together to cultivate volunteer-donor base rather than working separately. Therefore, the prevalence of private donations as a source of income suggests that the organization has successfully appealed to philanthropic initiatives, which relates to attracting more volunteers.

Second, the relative importance of charitable contributions to nonprofits has a critical implication for volunteer involvement due to the performance and accountability standards imposed by donors. Many nonprofit HSOs compete for donations from individuals and grants from private foundations and government agencies, and they are under increasing pressure to demonstrate their high performance and accountability to potential donors. One of the commonly used criteria in assessing a nonprofit's accountability and performance is a set of financial measures such as fundraising efficiency and administrative-program costs ratio (Ritchie and Kolodinsky 2003). Research finds that both private and government funders have expectations for their grantees to have low overhead costs and high program costs ratios and nonprofit organizations feel pressured to conform to these expectations (Bowman 2006; Gregory and Howard 2009). Therefore, organizations that rely more heavily on charitable donations and grants may be under greater pressure to lower their overhead costs and place volunteers in more positions as a way of lowering personnel expenses. For such reasons, the present study hypothesizes a positive relationship between the proportion of charitable gifts and grants in revenue and the use of volunteers.

Hypothesis 2 Human service organizations with a greater proportion of charitable gifts and grants in revenue use more volunteers than those with a smaller proportion of such incomes.

Non-program Activities and Volunteer Use

The extent of volunteer involvement in a nonprofit organization also depends on the types of activities in which the organization is engaged. This study focuses on two distinctive types of nonprofit activities that are not directly related to HSOs' charitable purposes: lobbying and

fundraising. Nonprofit lobbying involves “asking an elected official to take a particular position on a specific legislative proposal” (Avner 2016, 396). The Internal Revenue Service (IRS) defines lobbying as any attempt to influence legislation, which includes action by Congress, any state legislature, any local council, or similar governing body (IRS 2017). All nonprofit organizations, including those that qualify for federal income tax exemption under Sect. 501(c)(3) of the Internal Revenue Code, can engage in lobbying activities to varying extents. Although advocacy and lobbying is not a primary activity of HSOs, they have played a key role in promoting human rights and other social issues through lobbying and advocacy activities (Hasenfeld and Garrow 2012). However, 501(c)(3) organizations face stricter restrictions in lobbying activities than other exempt organizations as they receive most favorable tax treatment. In severe cases, organizations can even lose their exemption due to excessive lobbying. Lobbying expenditures include, among other things, the value of the allocable portion of staff time attributable to lobbying. Therefore, using volunteers in lobbying activities can help public charities lower lobbying expenses.

Hypothesis 3 Human service organizations that are involved in lobbying use more volunteers than those that are not.

Another major area of volunteer activities that do not directly serve the clients is fundraising. In fact, a number of studies report that fundraising is one of the most frequent activities performed by volunteers (Bureau of Labor Statistics 2016; Hodgkinson et al. 1996). Expenses for these activities are classified as overhead costs, and prospective donors tend to favor organizations with low fundraising and overhead costs. Consequently, nonprofit executives cut these costs down as much as possible, and using volunteers in fundraising activities can help reduce the costs (Gregory and Howard 2009). Brudney (2016) also explains that the public tends to perceive volunteer fundraisers as neutral participants who do not gain economic benefits from the money raised, unlike professional fundraisers or paid staff of an organization.

Hypothesis 4 Human service organizations that do fundraising use more volunteers than those that do not.

Culture of Good Governance and Volunteer Use

Good governance policies are especially important in nonprofit organizations because these policies contribute to ethical organizational culture and values (Lee 2016). Ethical culture and values, in turn, attract prospective volunteers and retain existing ones. Hager and Brudney (2011) explain that organizational conditions that are more

inviting to prospective volunteers have direct influence on volunteer recruitment. They (141) argue, “some recruitment problems result from organizational cultures or management decisions that make workplaces invisible or unattractive to volunteers.” One of the foundational works in building ethical culture is to ensure that the principles of good governance are applied throughout the organization. Among others, a whistleblower protection policy is an important element of the good governance practices, as the policy protects nonprofit volunteers as well as staff who make good-faith reports about illegal practices or violations of an organization from retaliation (Berry 2004; Walker 2014). In fact, whistleblower protection policy is one of the two Sarbanes–Oxley provisions that are directly applicable to nonprofit organizations in the USA. It is recommended that nonprofit organizations encourage staff and volunteers to report suspected wrongdoing within the organization. Having a written whistleblower policy can serve as an indicator of an organization’s culture for good governance and its preparedness for volunteers as well as willingness to work with them.

Hypothesis 5 Human service organizations that have a whistleblower protection policy use more volunteers than those that do not.

Data and Method

The present study examines the attributes of human service nonprofit organizations’ volunteer use, focusing on their revenue structure. This study uses data from the 2012 Statistics of Income Sample (SOI), which contains detailed financial information for a random sample of organizations that filed IRS Form 990 or 990 EZ for 2012 tax year. The nonprofit sector consists of diverse types of organizations, and the size of volunteer program may vary greatly depending on the nature of the services that a nonprofit organization provides. This study focuses on HSOs, one of the 10 major categories¹ in the National Taxonomy of Exempt Entities (NTEE) system. These organizations account for over one-third of all public charities in the USA, and they tend to be labor-intensive (McKeever 2015).

¹ The National Taxonomy of Exempt Entities (NTEE) system divides nonprofit organizations into 10 broad categories of arts, culture, and humanities; education; environment and animals; health; human services; international, foreign affairs; public, societal benefit; religion related; mutual/membership benefit; and unknown, unclassified (NCCS 2016a).

Dependent Variable

This study tests the relationship between a nonprofit organization's revenue mix and volunteer use. In order to measure an organization's volunteer use, this study uses the total number of volunteers as a dependent variable. Although other measures of volunteer involvement, such as the total hours of volunteering and types of activities performed by volunteers, may provide more in-depth information about an organization's use of volunteers, these details are not available in the SOI or other NCCS data. In measuring the number of volunteers, approximately one-third of the organizations in the sample reported that they did not have any volunteer. For these organizations, the observed dependent variable is "0," and further information is lost in the ordinary least squares (OLS) estimation.² The literature also warns of the selection bias when using an OLS model with a large number of "0" observations in the (Sigelman and Zeng 1999). Given the significant proportion of organizations with no volunteer, the present study employs the Tobit regression analysis, treating the number of volunteers as censored at zero (0). The basic assumption of the Tobit regression is that a latent (not directly observable) variable y^* (the propensity to use volunteer labor) exists as a continuous variable with a normal distribution. Then, this latent variable y^* is positively correlated with the observed variable y (the number of volunteers). The Tobit regression accounts for the censoring in the data, which occurs at 0 (no volunteer) in this study's case (see Amemiya (1984) and Long (1997) for further explanation of the Tobit model).

Predictor Variables—Demand Factors

A number of factors can shape a nonprofit organization's demand of volunteer labor. This study focuses on the relationship between a nonprofit's revenue structure and volunteer use and organizational activities, controlling for other organizational contingencies including organizational size, age, and size of the governing board.

Revenue Mix

First, this study tests how the two revenues sources of the most practical and symbolic importance to nonprofit organizations predict their use of volunteers. The importance of commercial income and charitable contributions and grants³ in an organization's revenue are included in the

model, with the first variable being measured by the percentage of program service revenue in the total revenue and the latter being measured by the percentage of charitable contributions and grants in the total revenue. The percentage of investment and other income is used as the base category. Together, these sources account for less than 10% of the total revenue of the HSOs in the sample. The information on revenue mix is available in Part I in the IRS Form 990.

Organizational Activities

This study examines how HSOs' non-charitable activities predict their use of volunteers, focusing on lobbying and fundraising activities. The model includes dichotomous measures of *whether an organization engaged in each type of activities* (1 if it did and 0 otherwise).

Whistleblower Protection Policy

This study controls for whether an organization had a whistleblower policy (1 if it did and 0 otherwise).

Control Variables

Organizational size—Total Expense and Number of Employees (+)

As well as for any other programs of a nonprofit organization, size of its volunteer program is ultimately determined by the organization's size, which directly relates to organizational resources in both terms of financial and human capacity. Therefore, organizational size must be controlled in order to understand the association between other organizational characteristics and volunteer program size. Larger organizations are not only more likely to have a greater demand for volunteers due to the larger number of clients that they serve, but they are also more likely to have better infrastructure to house and manage a volunteer program such as full-time volunteer administrators and managers (Handy and Srinivasan 2005). This study uses two measures of organizational size: *the natural logarithm of total expense* and *the number of employees*.

² See Table 5 for the OLS regression results with the organizations that had a volunteer program.

³ This measure includes both private and government grants because government grants are, like private donations and foundational grants,

Footnote 3 continued

loosely support a nonprofit's mission or programs and are not designed to provide direct benefits to the donor (government). The IRS Form 990 also closely aligns government grants with private contributions. Kerlin and Pollak's article (2011) explains this matter in detail.

Organizational Age (+)

The literature explains that establishing and managing a volunteer program requires a serious commitment from all levels of the organization (Brudney 2016). A successful volunteer program must be integrated into the organization, with an active involvement of paid staff and top management. Nonprofit organizations must also establish policies and guidelines for volunteer involvement, including screening, training, rewarding, and disciplining volunteers. In this sense, older organizations may have better infrastructure for volunteer involvement, compared to new organizations that often lack the experience and knowledge for developing volunteer management procedures. When an organization lacks such infrastructure, there is an increased risk of liabilities, and therefore, it may find involving volunteers more costly than organizations with established volunteer involvement procedures. This study uses the *age of an organization, which is measured by 2012—the year the organization was founded*.

Size of Governing Board (+)

In most states, nonprofits are required to have three officers on the board. Still, the average nonprofit board size is significantly larger than the required number, with 12–24 members (Ostrower 2007). In addition to their legal and fiduciary duties, board members perform important functions for the nonprofit organization, including bridging the organization with its constituents and community. Empirical research indeed finds that a nonprofit organization's board size is associated with its outreach endeavors and community engagement (Shea and Hamilton 2015). Therefore, this study controls for the board size, using *the number of voting members on the governing board*.

Service Type

HSOs provide varying types of services, ranging from crime- and legal-related services to recreational activities. This study controls for 8 different service types provided by HSOs, following the NTEE classification system: crime, legal related; employment, job related; food, agriculture, and nutrition; housing, shelter; public safety; recreation, sports, leisure, athletics; youth development; and multipurpose and other. According to the US Bureau of Labor Statistics (2016), more Americans volunteer in education organizations and youth organizations than any other types, with an exception of religious organizations. Therefore, recreation and sports organizations and youth development organizations use more volunteers than other HSOs. Seven dummy variables are included in the regression, with the multipurpose and other types as the base category.

Table 1 Descriptive statistics ($N = 2940$)

Variables	Mean
Number of volunteers in 2012	2594.45
Revenue: charitable gifts and grants %	32.35%
Revenue: business income %	58.54%
Revenue: investment income %	4.17%
Revenue: other income %	4.94%
Lobbying	14.76%
Fundraising	31.50%
Whistleblower protection	75.95%
Total expense	\$ 21.1 million
Total number of employees	376.60
Organizational age	40.93
Number of voting members on board	15.47
Crime and legal related	2.35%
Employment and job related	4.46%
Food, agriculture, and nutrition	1.97%
Housing and shelter	24.73%
Public safety	2.31%
Recreation and leisure	5.82%
Youth	4.59%
Multipurpose and other	53.78%

Results

Table 1 describes 2940 501(c)(3) HSOs in the sample. On average, a nonprofit HSO had approximately 2600 volunteers and employed 377 paid staff in 2012. In regard to the revenue structure, business income accounted for approximately 60% (58.54%) of the total revenue and donation and grants accounted for one-third (32.35%). Statistics in Table 1 reveals that about a third (31.50%) of HSOs in the sample did fundraising. Lobbying is a more uncommon activity for these organizations, with approximately 15% of the organizations reporting any lobbying activities. Approximately three-fourths of HSOs in the sample have a whistleblower protection policy. Table 1 shows that the average number of voting board members was 15 approximately. Multipurpose and other HSOs account for the majority of the sample, with organizations providing housing and shelter being the second largest subgroup (24.73%).

Table 2 provides the Tobit regression results, and they reveal distinctive patterns between the selected organizational characteristics and the number of volunteers. First, the results show that the proportion of business income in revenue is negatively associated with the number of volunteers in the organization, supporting Hypothesis 1. However, the proportion of income from

Table 2 Tobit regression on the number of volunteers ($N = 2940$)

Independent variables	Coefficients (standard errors)
Charitable contributions and grants %	17.48 (47.68)
Business income %	– 112.44* (47.30)
Lobbying	9719.12*** (2763.46)
Fundraising	– 106.54 (2221.27)
Whistleblower protection	7702.08** (2659.92)
Log(expense)	3954.84*** (688.50)
Total number of employees	5.55*** (1.11)
Organizational age	17.24 (30.06)
Number of voting members on board	98.12** (55.26)
Crime and legal related	– 6774.57 (6549.00)
Employment and job related	– 12,730.47** (4734.66)
Food, agriculture, and nutrition	9544.08 (6692.21)
Housing and shelter	– 5738.12* (2643.93)
Public safety	11,385.82 (6525.36)
Recreation and leisure	18,668.31*** (4189.69)
Youth	19,106.42*** (4771.66)
Constant	– 77,936.05*** (10,400.49)
/Sigma	47,610.64*** (739.62)

LR $\chi^2(16) = 299.96$ Prob > $\chi^2 = 0.0000$ McFadden's pseudo- $R^2 = 0.0058$

Observation summary

861 left-censored observations

2079 uncensored observations

0 right-censored observations

*** $p < 0.001$, ** $p < 0.01$, and * $p < 0.05$

charitable donation and grants, while this variable's coefficient is positive, is not significantly associated with the number of volunteers. Therefore, Hypothesis 2 is not supported by the results. The findings also reveal that organizations that lobby have significantly more volunteers than those who do not lobby, which supports Hypothesis 3. However, the results do not support Hypothesis 4, as fundraising activities were not associated with the size of the volunteer program. Hypothesis 5 is supported by the results, which show a significant and positive relationship between whistleblower protection policy and the volunteer program size.

The Tobit regression assumes a linear relationship between the latent variable y^* and the predictors, and the coefficients in Table 2 show the coefficients in this linear relationship. Because the relationships between the observed y (proportion of marketing expense) and the predictors are not necessarily linear, the beta coefficients of the Tobit regression do not provide information about the actual effect—how changes in the predictors lead to changes in the observed y . The marginal effects in Table 3 show the predicted changes on the number of volunteers depending on the changes in independent variables when other variables are held at their mean values.

First, Table 3 indicates that a 1% increase in the share of business income in the total revenue leads to the decrease in the number of volunteers by 35 persons. In other words, if all other characteristics of an organization are held at the mean values, a 20% increase in the share of business income will result in involving 700 fewer volunteers. This finding supports the notion that increasing commercialization will weaken the volunteer base of the nonprofit sector.

The marginal effects in Table 3 show that lobbying organizations have 3201 more volunteers per year compared with those that do not lobby, suggesting a significant portion of volunteer labor is dedicated to this activity. The results also show that, when all other characteristics are held at mean values, an organization with a written whistleblower protection policy uses 2368 more volunteers than an organization without the policy. Although it is not clear whether having a large volunteer program leads to the adoption of a whistleblower policy or having a whistleblower policy prepares a nonprofit for a larger number of volunteers, this finding suggests that the organizational culture of integrity is closely related to the extent of volunteer involvement.

The regression results in Tables 2 and 3 indicate that organizational size, in both terms of financial and human resources, is a significant predictor of volunteer use in an HSO. Table 3 shows that the number of volunteers increases by 1247 with a 1% increase in nonprofits' expense. Table 3 also indicates that, for each additional

Table 3 Marginal effects after Tobit

Independent variables	dy/dx
Charitable contributions and grants %	5.51 (15.03)
Business income %	– 35.44* (14.91)
Lobbying	3201.80** (951.67)
Fundraising	– 33.57 (699.79)
Whistleblower protection	2367.53** (796.86)
Log(expense)	1246.54*** (216.80)
Total number of employees	1.75*** (0.35)
Organizational age	5.43 (9.48)
Number of voting members on board	30.93 (17.42)
Crime and legal related	– 2049.86 (1901.20)
Employment and job related	– 3730.82** (1288.20)
Food, agriculture, and nutrition	3190.69 (2370.10)
Housing and shelter	– 1775.89* (802.52)
Public safety	3848.40 (2360.70)
Recreation and leisure	6547.40*** (1629.10)
Youth	6738.39*** (1876.10)

Standard errors in parentheses

*** $p < 0.001$, ** $p < 0.01$, and * $p < 0.05$

paid staff, a nonprofit has approximately two (1.75) more volunteers (Table 3) when other characteristics are held at their mean values. In terms of service types, recreation and leisure organizations and youth organizations have a substantially larger volunteer program than other types of HSOs. Employment- and job-related organizations and housing and shelter organizations use fewer volunteers than others.

The results from an additional probit analysis in Table 4 show how each predictor is correlated with whether an organization uses volunteer labor at all. There are some noticeable differences in the analysis results between the

Table 4 Probit regression on whether an organization has a volunteer program ($N = 2940$)

Independent variables	Coefficients (standard errors)
Charitable contributions and grants %	0.0012 (0.0012)
Business income %	0.0004 (0.0012)
Lobbying	0.1813 (0.0933)
Fundraising	0.6305*** (0.0713)
Whistleblower protection	0.3749*** (0.0660)
Log(expense)	0.1019*** (0.0179)
Total number of employees	0.0000 (0.0000)
Organizational age	0.0033** (0.0010)
Number of voting members on board	0.0111*** (0.0027)
Crime and legal related	– 0.3975* (0.1683)
Employment and job related	– 0.5059*** (0.1291)
Food, agriculture, and nutrition	0.4800 (0.2457)
Housing and shelter	– 0.5812*** (0.0664)
Public safety	0.1091 (0.1756)
Recreation and leisure	0.1203 (0.1202)
Youth	– 0.2011 (0.1480)
Constant	– 1.5765*** (0.2662)

LR $\chi^2(16) = 676.64$ Prob > $\chi^2 = 0.0000$ McFadden's pseudo- $R^2 = 0.1903$ *** $p < 0.001$, ** $p < 0.01$, and * $p < 0.05$

probit model for whether an organization has a volunteer and the Tobit model for the extent of volunteer involvement. First, unlike in the analysis of the number of volunteers in HSOs, the proportion of the business income is not significantly associated with the likelihood of having

Table 5 OLS regression on the number of volunteers with the organizations that had a volunteer program ($N = 2079$)

Independent variables	Coefficients (standard errors)
Charitable contributions and grants %	– 22.03 (56.35)
Business income %	– 167.55** (56.98)
Lobbying	8736.52** (2901.12)
Fundraising	– 9516.50*** (2362.05)
Whistleblower protection	– 188.77 (3152.11)
Log(expense)	2933.30*** (810.19)
Total number of employees	7.48*** (1.21)
Organizational age	22.32 (31.80)
Number of voting members on board	– 36.04 (57.53)
Crime and legal related	– 2109.70 (7437.38)
Employment and job related	– 7877.65 (5232.17)
Food, agriculture, and nutrition	5076.41 (6935.97)
Housing and shelter	8642.22** (3116.93)
Public safety	8844.21 (7257.28)
Recreation and leisure	19,320.39*** (4592.02)
Youth	23,885.93*** (5169.58)
Constant	– 36,597.06 (12,215.49)

$F(16, 2062) = 9.28$

Prob > $F = 0.0000$

Adjusted $R^2 = 0.0600$

Root MSE = 47,348

*** $p < 0.001$, ** $p < 0.01$, and * $p < 0.05$

volunteers in the probit regression. Fundraising, on the other hand, is positively associated with the likelihood of having volunteers (Table 4), while it is not associated with the number of volunteers (Table 2). This suggests that HSOs that do fundraising are more likely to use volunteers

than organizations that do not fundraise, but fundraising organizations do not necessarily have a larger volunteer program. Overall, these results suggest that organizational activities determine whether a nonprofit organization uses volunteers at all, but the size and extent of the volunteer programs are rather determined by an organization's funding structure and its culture and atmosphere regarding volunteer involvement.

Discussion and Conclusion

The present study examines differences in HSOs' volunteer use from the demand perspective. Overall, the findings support the growing body of research that nonprofits' demand for volunteer labor is not uniform, but varies across organizations. The results indicate that the proportion of commercial income is negatively associated with the extent of volunteer use in a nonprofit organization. Scholars point out that commercialization of human service nonprofits is manifested through their aggressive profit-seeking behaviors as well as their growing reliance on service fees (Guo 2006). Research also suggests that many nonprofits are forced to act as profit seekers in order to adapt to the changing funding environment and the increasing pressure for effectiveness and self-sustainability (Salamon 1999). The findings of this study provide supports for the concerns that increasing commercialization of nonprofit organizations will weaken the role of volunteers in human service delivery and the distinctiveness of nonprofit organizations from for-profit organizations (Eikenberry and Kluver 2004). With the increasing commercialization in the nonprofit sector, scholars have expressed concerns regarding its negative consequences on the mission, values, and management of nonprofit organizations (Epstein and Yuthas 2010). Most importantly, research suggests that the growing reliance on market-type transactions leads to market-type relationships between a nonprofit organization and its stakeholders, including clients, funders, and volunteers (Maier et al. 2016). The changes in a nonprofit organization's attitudes toward its volunteers, then, will affect its priorities regarding volunteer involvement.

It is possible that nonprofits make a financially optimal decision after comparing the benefits and costs of volunteer involvement (Handy et al. 2008; Handy and Srinivasan 2004). Nevertheless, what might have been ignored in this perspective is that engaging volunteers brings nonprofit organizations both direct and indirect benefits. As for direct benefits, research suggests that volunteering, when used effectively, can be a highly valuable asset to nonprofit organizations (Eisner et al. 2009). Volunteers do not only bring professional skills that nonprofits desperately need

without getting paid, but they also help maximize nonprofits' impact on their clients. For instance, Ronel's (2006) study on a nonprofit organization serving at-risk youths reports that their interaction with volunteers makes positive impacts on the youths' world view, because they perceive the unpaid work of volunteers as representing pure altruism. Therefore, volunteers, when managed well, can make a significant contribution to better achieving a nonprofit's mission. In regard to indirect benefits, what might have been forgotten is that volunteers are main actors in nonprofits' efforts to create and sustain social capital and contribute to the integrity of society. Studies show that volunteering contributes to increased social connectedness in a wide range of contexts (Kay and Bradbury 2009). Hence, the efforts to become a more competitive provider may weaken nonprofit organizations' role as conduits for civic engagement and social capital development (Eikenberry and Kløver 2004; Ryan 1999).

There are a couple of measures to be taken in order to prevent nonprofit organizations' role as social capital builders from deteriorating. First, the assumptions about nonprofit performance must be expanded beyond mere financial ratios, as such ratios are often limited in measuring social benefits that an organization creates. There exists a variety of ways to measure social impacts an organization makes, including social return on investment and blended values. Adopting more comprehensive methods of performance assessment will enable nonprofit organizations appreciate the value of volunteer involvement and communicate the benefits with their stakeholders. Charity watchdogs should also incorporate these non-financial measures in their ratings so that funders and prospective donors can take the social capital-building role of an organization into consideration upon making contribution decisions. Second, nonprofit organizations must develop new and innovative ways to engage more volunteers. Research suggests that changes in lifestyles and time constraints, coupled with the advancement of information technologies, have transformed the concept of volunteering (Young and McChesney 2013). As a result, forms of volunteering have changed significantly and these changes influence the organization and coordination of volunteer efforts (Macduff et al. 2009). If there is a lesser need for volunteers in the traditional volunteer activities, organizations must be active in finding other areas where volunteers can make a significant contribution in order to facilitate volunteer involvement. The findings also indicate that HSOs involve volunteers in various activities, not just in charitable programs serving clients directly. Different contexts of volunteering imply that these volunteers have different motivations, experiences, and expectations. The diversity in volunteer activities suggests that different management approaches be taken depending on the nature

of volunteering (Hager and Brudney 2004). In sum, today's volunteer managers face much broader and various settings compared to their predecessors in both organizational factors and individual characteristics of volunteers (Brudney and Meijs 2014). Therefore, nonprofit organizations have to understand how to use the talents of a diverse pool of volunteers in different settings.

The positive association between lobbying and volunteer usage suggests that HSOs' involvement in political activities is a significant demand factor for volunteer labor. Being a 501(c)(3) organization limits an organization's extent of lobbying, and lobbying cannot be a primary activity for HSOs. As a consequence, many nonprofit organizations turn to volunteers rather than assigning staff positions or financial resources to lobbying purposes (Almog-Bar and Schmid 2014). By doing so, HSOs can decrease the organizational expenses on the activity that is not a part of their exempt purpose and increase their program expense ratio, which is one of the key indicators donors refer to see when making a donation decision.

The findings also suggest that the organizational culture for good governance is a significant predictor of volunteer program size. This means that the top-level support for building ethical culture and governance is a crucial element in developing and expanding a volunteer program. Volunteers are often in direct contact with nonprofits' clients, and organization-wide ethical governance that allows them to bring up concerns about what and how organizations are doing in place demonstrates organizations' commitment to ethical behaviors. This study limited its focus to whistleblower protection, but future research can study how different provisions of Sarbanes–Oxley are related to a nonprofit's volunteer use, testing what areas of good governance are critical in preparing an organization for volunteer involvement.

Overall, this study's findings shed light on who use more volunteers for what purposes, providing a meso-level view on volunteering. Despite the contributions, it has to be noted that the size of volunteer program is determined not only by the demand for volunteers, but also by the supply of volunteer labor to the organization (Simmons and Emanuele 2010). An organization may have more volunteers than other organizations because more people wanted to volunteer in the organization, regardless of its demand for volunteers or its volunteer management capacity. Therefore, this study is limited in identifying the relationship between volunteer demand, supply, and size of volunteer program. Inability to include the supply-side variables might also have resulted in low R-squared values (Table 2). Still, scholars agree that pseudo-R² measures cannot be interpreted as one would interpret an OLS R², a direct measure of a model's goodness of fit (Veall and Zimmermann 1996). Moreover, this study is based on the

analysis of cross-sectional data and there is a potential endogeneity problem. A longitudinal study on volunteer use can definitely help better understand nonprofits' volunteer demand and capacity. Undoubtedly, though, the influx of enthusiastic volunteers will not last unless the organization has both culture and capacity to manage these individuals.

Furthermore, the revenue structure, and especially the reliance on commercial income, may affect the supply of volunteer labor as well as its demand. For example, potential volunteers can view an organization with a high proportion of business income as profit-seeking, therefore walk away. With the inevitable and rapid trend of commercialization among human services organizations, these organizations may face a serious challenge in recruiting and retaining volunteers. Supply of volunteer labor is shaped by a variety of factors, including local and national economy and the reputation of the organization, to name a few. An analysis of longitudinal data will shed light on the relationship between volunteer demand and supply in diverse economic conditions.

The findings suggest that commercialization of nonprofit organization results in a decrease in volunteer demand. Still, the degree of commercialization is not a unidimensional concept. This study uses the proportion of commercial income, but this measure alone may not measure how business-like a nonprofit organization is. Future studies can use more diverse measures of business-likeness of nonprofit organizations (Dart 2004), as other measures in terms of the manners in which the organizational activities are carried out and staff's educational and career backgrounds can also help understand the relationship between a nonprofit's business-like behaviors and its volunteer use. Ultimately, it is worth examining how an organization's culture regarding business orientation influences its use of volunteers and other aspects of management.

Lastly, the SOI data include information of public charities that filed Form 990s or 990 EZ. Not including the information of smaller organizations that do not have to file such forms⁴ might have caused a selection bias because it is possible for smaller organizations to have different priorities and practices regarding volunteer use from those of larger organizations. In addition, it has to be noted that there exist concerns about accuracy of financial information in 990s (Krishnan and Yetman 2011; Wing et al. 2006;

Yetman and Yetman 2012) and the inaccuracies in the data can result in misleading findings.

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⁴ The IRS requires organizations with gross receipts greater than or equal to \$200,000, or with total assets greater than or equal to \$500,000 to file Form 990. Organizations with gross receipts smaller than \$200,000 and total assets smaller than \$500,000 can file either Form 990 or 990 EZ. Therefore, smaller organizations with gross receipts equal to or smaller than \$50,000 that filed Form 990 N (e-postcard) are not included in the sample.

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