

# Dollar Value of Volunteer Time: A Review of Five Estimation Methods

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Our nation's citizens are rallying to meet the call for community volunteer service in the wake of the September 11, 2001 terrorist attacks in New York. President Bush is seeking a legion of Americans, each of whom will make a personal lifetime commitment to volunteer service of at least 4,000 hours. Civic engagement—volunteerism—he believes, will help build the Homeland Security network of citizens needed to fight terrorism (Grier, 2001).

Even before the national call to service, Americans were volunteering in record numbers. According to a recent survey, in the year 2000, 44 percent or 83.9 million people volunteered their time. These volunteers provided a service equivalent to more than 9 million full-time employees at a value of \$239 billion (Points of Light Foundation, 2002).

The challenge for non-profit and governmental organizations is to select a valuation system to use in financial reports and grant proposals. The challenge for each volunteer service manager should be to provide a realistic estimate of the value of volunteer time. It should be noted that this would provide a minimum value for hours of service, and is very different from calculating the value of tasks completed. Further analysis of the real impact of volunteer service would reveal a much different and almost certainly higher "value added." Since calculation of the value of time is the only efficient method readily

available to most organizations currently, we offer a range of options, and concluded with a recommendation.

Although the Financial Accounting Standards Board (FASB)—the national board which establishes guidelines for accountants, requires the reporting of the value of most volunteer services on corporate financial statements, it fails to provide guidelines for doing so (Bechtold). A review of the literature substantiates the perception that there are many methods now in use—methods that provide varying estimates of the dollar value of volunteer service.

This paper reviews several common methods of valuation and, using actual volunteer time data from a city-run volunteer program as a basis, provides an analysis of the application of five different valuation methods.

The purpose of the paper is to compare those dollar value methods, and to recommend a method for use in volunteer program management in local governmental and non-profit agencies. The review provides guidance for volunteer management personnel in non-profit and governmental organizations at all levels.

The City of Grand Junction, in Colorado, enlists the assistance of approximately 350 volunteers each year throughout its seven different departments. The population is about 55,000. The City government employs about 430 staff. This growing program recorded

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that approximately 350 citizens provided 25,721 volunteer hours in 2001—the equivalent of 14.9 full-time positions. The volunteer program is administered through the city’s human resources department. It is the data from this program that serves in this study as the basis for an analysis of dollar value estimation methods.

**THE VALUE OF COMMUNITY SERVICE TO THE ORGANIZATION**

Putman (Grier, 2001) wrote, “The positive benefits of such civic engagement and social connectedness ... consistently produce, for example, better schools, faster economic development, lower crime and more effective government. Life is easier in a community blessed with a substantial stock of social capital.” Volunteers serve in every facet of public life, and by so doing, supplement the contributions that organizations can make through their own efforts. Services extended to citizens through the city’s volunteer program illustrate some of the contributions that improve the quality of life of city residents. For example, the area Job Corps center, a training center for socially and economically challenged youth, supplied a crew and a paid supervisor, as well as equipment, to paint the interior and exterior of the city’s senior center. The value of this contribution is far more than an average rate of pay times hours of service, and would indicate this contribution provided a long-term improvement to a major recreational facility within the community. In an example such as this, there is a clear opportunity to explore how impact measurement could be applied for a more complete picture of the “value added by volunteers” above the dollar value attached to the time they donated. The results would surely demonstrate that taxpayers get more services for each investment in volunteering.

Organizations seeking grants must attach some dollar value to the work of volunteers, along with reporting the costs of managing the volunteer program. The general practice, therefore, is to take the more simple approach of estimating the dollar value of volunteers’ time. The concern is that organizations account for the value of volunteer hours

when the output of the volunteer service is often much more valuable and meaningful than an hourly wage equivalent.

**DOLLAR VALUE METHODS**

A review of the literature provided specific descriptions of a number of methods used in Grand Junction agencies, and their variations. Because the application of each method provides a different financial result, it is important for managers to select a method that best fits the mission of the organization.

It is clear that, without guidelines, organizations base their calculations on methods that may or may not be in the best interests of the volunteer services program. Financial reports and grant proposals lack a very basic construct of accounting—comparability. Methods reviewed here include Comparable Worth, Minimum Wage, Average Wage, Living Wage, The Independent Sector Formula, and Person/Year Computation.

The following table shows the range of dollar values estimated from the use of various methods.

**TABLE 1.**  
**Estimated Dollar Value of Volunteer Time – Analysis of Five Methods**  
(Based on 25,721 Volunteer Hours of Service to the City of Grand Junction)

Method	Hourly Wage	Est. Value
Average Wage – 10% Benefits	\$14.30	\$367,812
Comparable Worth – 10% Benefits	\$ 7.156	\$184,059
Independent Sector – 12% Benefits	\$16.05	\$412,823
Living Wage – 10% Benefits	\$ 9.05	\$232,776
Minimum Wage – 10% Benefits	\$ 5.67	\$145,840

**Comparable Worth.** The comparable worth method attempts to equate the work of paid employees to the work of volunteers. Actual assigned tasks are matched as closely as possible. It is assumed that the dollar value of the volunteer’s time equates to the dollar value of a paid employee’s time. This method is called the “input cost” approach when used in Aus-

tralia. Hopkins (2000) analyzes the method with a caveat that the approach is based on the concept that volunteer and paid employees are perfect substitutes.

In addition to this questionable assumption, Hopkins states that there are many unknown variables. For example, there is no determination of the level of compensation selected. The level could be an entry-level hourly wage, an average weekly or monthly wage, or some variation of any of these (2000). Behrens (2000) supports the comparable worth method, but calls it the replacement value approach. He states that the method must be measurable to be sound, an illusive goal, at best.

Susan J. Ellis addresses this computational method, giving credit for its origin to G. Neil Karn (Ellis, 1999). She refers to the method in terms of equivalent dollars. It is her premise that it is the volunteer managers' responsibility to compute dollar value estimates fairly. Her recommendation is to find equivalent positions within the organization, and then using the salaries of those positions, begin the computation. Fringe benefits as appropriate to volunteer benefits should be added to the salary figure. She cautions that the calculation should be computed on actual hours served by the salaried personnel, acknowledging that volunteer hours do not include vacation time and other non-productive hours.

The city program studied uses this method in calculating its estimated dollar value of volunteer time, using the proficient level to assign a comparable wage, as opposed to using entry level wage. Actual volunteer assignment descriptions detail the tasks to be completed, and these tasks are matched as closely as possible with paid positions. Fringe benefits are calculated specifically for each position and include Social Security, Medicare, and Workers' Compensation. Data for the comparable worth computation within this study reflects those individualized benefit calculations estimated to average approximately 10 percent.

The city has presented a very conservative calculation of volunteer time value—one that does not recognize the value of volunteer impact. True, volunteer output is rarely measured, but the dollar value of volunteer time can be estimated; therefore, the method is acceptable in that it is a fair measure of estimated dollar value of volunteer time.

**Minimum Wage.** Many organizations use federal minimum hourly wage computations—\$5.15—as a basis for their volunteer time dollar value estimates. This system sometimes also reflects an additional computation for fringe benefits.

Ellis (1999) feels this method is a trap, easy to use but not reflective of volunteer activities. Her position is that most volunteer assignments are above minimum wage levels—maybe even above median wage levels.

One Grand Junction no-pay medical facility uses this method (Foster, 2002); this clinic serves indigent citizens. According to Foster, the minimum wage computation

results in an estimate of the dollar value of volunteer time which closely reflects the economic reality of the clinic and its clientele. Unadjusted federal minimum wage—\$5.15 per hour—is the basis for estimates, and those data are reported in financial information and grant proposals. This method does not, in any way, reflect the value of the per hour expertise of the volunteers.

It would not be meaningful for the City of Grand Junction to use the minimum wage method when estimating the dollar value of volunteer time—the computations would have little relationship to the pay scale of the city or to the value of volunteer time contributions.

**Average Wage.** Average wage calculations can be gleaned from census data and reflect a middle ground to be used for calculations. This calculation is a wide-spread method of estimation of the dollar value of volunteer time (Hopkins, 2000, National Centre for Volunteering, 2002). Ross (1998) supports

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this method, indicating that Canadians often use this method, based on national average hourly wages published by Statistics Canada.

In computing average wage in this study, the local metropolitan area Bureau of Labor Statistics data were used to determine the mean wage. Third quarter 2001—the most recent information—lists mean wage in the area at \$13. Using the wage plus benefit method most closely applied in this study, the wage calculated at average hourly wage plus 10 percent benefits is \$14.30. This method is patterned after the national Independent Sector Formula, and therefore employs the methodology of the national method with the added advantage of local orientation.

This calculation results in a significantly higher estimated value than does the comparable wage method currently used by the city and because it is localized, may be a viable alternative.

**Living Wage.** New on the horizon is the concept of value based on dollars required to subsist. That value is aligned with the federal poverty line for a family of four—\$17,800 a year or about \$8.23 per hour (Wagner, 2002, Foster, 2002). This concept when applied to the dollar value of volunteer time moves the calculation to a level more reflective of the cost of living.

The living wage valuation method may be a useful approximation if applied to basic skill volunteer tasks. The City of Denver, for example, applies this value to those assuming entry-level positions. (Wagner, 2002). One Grand Junction charity uses a living wage of \$10, a subsistence estimate which organization leaders believe to be appropriate for the area. (Anderson, 2002). Using the more defensible federal poverty line figure of \$8.23 per hour, volunteer managers could develop financial information which could withstand scrutiny from foundations and funding agencies. The living wage concept, however, lacks any relationship to the nature of volunteer service and, unless matched with low skill services, lacks any tie to the value of volunteer hours contributed.

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**The Independent Sector Formula.** One the most widely used calculation methods for estimating the dollar value of volunteer time applies the average hour earnings of all production and non-supervisory workers on private non-farm payrolls (as released by the Bureau of Labor Statistics). It then increases the rate by 12 percent (estimated fringe benefits) to arrive at the dollar value of volunteer time each year (Independent Sector, 2002). That dollar value for 2002 is \$16.05—significantly above the dollar value computed using local average wage data.

This method is used widely throughout government and non-profit sectors. Working closely with the Independent Sector are the Points of Light Foundation and the Corporation for National Service. Both of these organizations promote volunteerism and provide community-level support for volunteer centers.

Among the network associates are government organizations such as the Bureau of Land Management, the Natural Resource Conservation Service and the National Parks Service.

Non-profit associates include AmeriCorps and RSVP. The over 500 volunteer centers coordinated through these organizations use the Independent Sector Formula to estimate the dollar value of volunteer time.

**Person/Year Computation.** Canadian scholars have proposed that it is useful to value volunteer time in terms of full-time, year-round positions, or “person-years” which the volunteer hours would equal (Ross, 1998). The computation is completed by dividing total volunteer hours per year by the annual average number of hours worked by a full-time employee. An organization with accurate volunteer service and payroll records can use this formula to estimate person-years of volunteer service. No effort is made to differentiate the type of work, the quality and quantity of work, or the estimated dollar value of the volunteer’s time.

If a typical worker had two weeks of vacation time, ten days of holiday time, and ten days of sick and personal leave, the worker

would be available for 46 weeks (37.5 hours per week) or 1,725 hours annually. Using 2001 city volunteer time data and an annual 1,725 average full-time equivalent employee hours, the contribution of volunteers to the city and its citizens is significant. This method is an accurate, non-financial assessment of volunteer time contributions; it could only be used as a footnote in financial reports if an estimated per year wage were not attached.

**TABLE 2.**

**Full-time Equivalent Volunteer Person-Year Computation:**

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Hours Contributed / Annual Full-Time Hours = Person-Years Contributed
25,721 hours / 1,725 hours = 14.9 years

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Volunteers supplemented the city's level of service by contributing nearly 15 person-years—a noteworthy addition to its service efforts.

**CONCLUSIONS**

The purpose of the paper was to identify those dollar value methods most appropriate for use in volunteer program management in local governmental and non-profit agencies. The recommendations provide guidance for volunteer management personnel in non-profit and governmental organizations at all levels.

Accounting regulations and requests for quantifiable data at management levels require that fair and defensible methods be applied. After studying several methods and applying them to volunteer program data, the following conclusions were drawn:

1. There are no established guidelines for calculating the dollar value of volunteer time.
2. Establishing an estimated dollar value of volunteer time ignores the qualitative and quantitative value of long-term gains to the organization and its clientele.
3. Comparable worth estimates give a reasonable level of substitute value if tasks are closely aligned.
4. Minimum wage estimates do not reflect the substitute value of volunteer service and generally understate the contributions of volunteer time.

5. Average wage (using local data) and the Independent Sector Formula (using national data) measure value in the same way. Of the two choices, it is appropriate for local organizations to use local average wage data because they more closely reflect the economics of the area.
6. Person/Year computations provide valid analytical results.

**RECOMMENDATIONS**

Local governmental and non-profit agencies should adopt a method which most fairly reports the estimated dollar value of volunteer time, recognizing that the reported data does

not include output measures assessing qualitative and quantitative components of volunteer contributions. The two most usable methods for local organizations are comparable worth and average wage. The more accurate of the two is comparable worth; it is also the more complex of the two. Care should be taken to ensure that the cost of compiling comparable worth statistics does not outweigh the benefit of having such information available to management.

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