

Does It Pay to Volunteer?

The Relationship Between Volunteer Work and Paid Work

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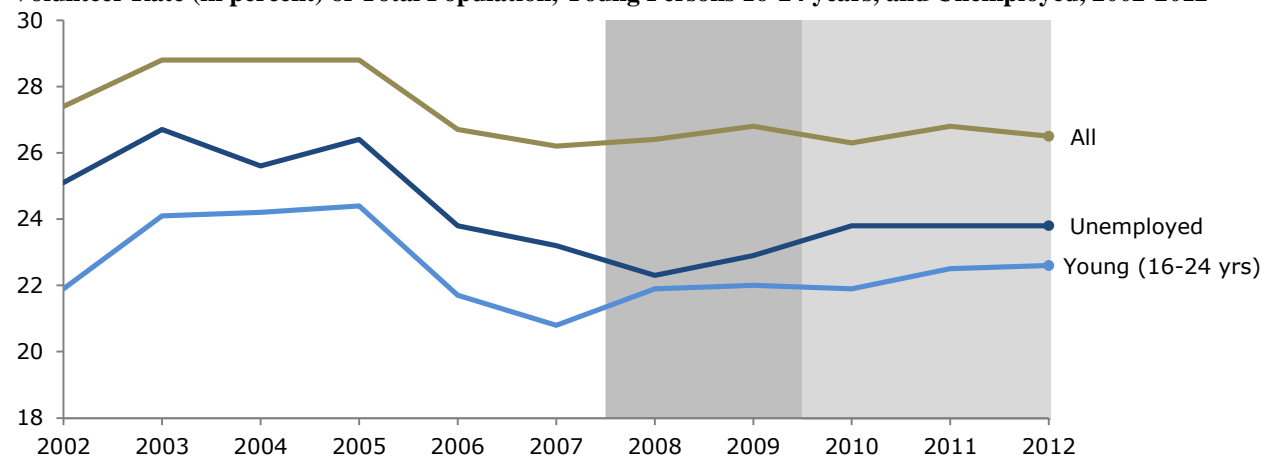
Introduction

It is widely believed that volunteering will improve workers' job prospects. The logic is that volunteering offers opportunities to expand work-related experience, develop new skills, and build a network of professional contacts. For young people with little history of paid employment it can also signal that a person would be a reliable and motivated employee. In spite of these widespread views about volunteering, surprisingly little research has been done on the effect of volunteering on employment and pay in the United States. This study is intended to help fill this gap.

This analysis examines volunteering as a pathway to employment during a period of high unemployment, when it is reasonable to expect the beneficial effects of volunteering to be especially pronounced. Unemployment rose from 4.6 percent in 2007 to a peak of more than 10 percent in the beginning of 2010.¹ There was an even larger rise in long-term unemployment. In the years just before the recession, workers who were unemployed for more than 26 weeks comprised less than 1.0 percent of the labor market.² However, the share of long-term unemployed increased to 4.2 percent of the labor force in 2010 and continued to be more than 3.0 percent of the labor market through 2012. In this context, the skills and contacts obtained through volunteering could be especially valuable.

Interestingly, rates of volunteering changed little in the recession. The overall rate edged up slightly, but did not rise back to its 2003-2005 level (see **Figure 1**). Likewise, the volunteer rates for young people (ages 16-24) and for the unemployed remained below the 2005 level throughout the recession and the following slow recovery. While this may be explained in part by a compositional effect (the unemployed in the downturn were a different group of people from those who had previously been unemployed), there clearly was no rush to volunteer in response to the downturn.

FIGURE 1
Volunteer Rate (in percent) of Total Population, Young Persons 16-24 years, and Unemployed, 2002-2012



Source: BLS, Volunteering in the United States, 2002-2013.

1 BLS, Labor Force Statistics from the Current Population Survey, Annual unemployment rates, for people age 16 years and older.

2 BLS, Labor Force Statistics from the Current Population Survey, Number of unemployed for 27 weeks and more, for people age 16 years and older.

The fact that rates of volunteering did not increase substantially in the recession indicates that unemployed persons may not be aware of the potential job benefits of volunteering. Our analysis of the Volunteer Supplement to the Current Population Survey (CPS) found that volunteering is in fact associated with a significant improvement in job prospects. We estimated that persons who were not employed were, on average, 6.8 percentage points more likely to have found employment a year later if they volunteered a substantial amount of hours annually (20-99 hours per year) compared to non-working persons who did not volunteer. On the other hand, non-working persons who volunteered less than 20 hours were not more likely to be employed a year later than those who did not volunteer.

Who Volunteers

Volunteering is a widespread activity in the United States with 64.5 million, equal to 26.5 percent of Americans 16 years and older, engaging in volunteer activities in 2012.³ People volunteer for many different reasons, including wanting to help others, social prestige, meeting people, learning new skills, gathering information about an organization or career, as well as improving job prospects and pay in the formal labor market.⁴

The human capital model hypothesizes that an individual engages in volunteer activities to accumulate human capital through formal and informal training as well as labor market experience to increase future productivity in paid employment.⁵ In this framework, volunteering is an investment of time motivated by an expected return in the form of increased future earnings. Several studies estimating the earnings effect of volunteering during economic upswing have found positive effects. A study using data from the 2001-05 Panel Study of Income Dynamics (PSID) for women estimated that an extra year of volunteer experience increases wage offers in part-time work by 8.3 percent and wage offers in full-time work by 2.4 percent.⁶ However, the wage effect estimates were sensitive to the structure of the underlying discrete choice model, which unrealistically assumed that at the beginning of each year a woman makes three joint and sequential decisions: an employment state, a marital status and whether to conceive a child.

A study from Canada estimated the return to volunteering to be 6-7 percent of annual income for employed persons in 1987.⁷ Returns to volunteering varied across types of organizations with economic and sports organizations having the highest estimated rates of return, and religious organizations having a negative return to volunteering. A follow up study further found regional differences in the incidence of volunteering and the return to volunteering.⁸ The author speculated that these differences were due to regions rewarding skills differently. Moreover, networking may be more useful in large urban settings and in tight labor markets; while the reliance on signals may be more important in a weak labor market with few jobs and many candidates.

3 BLS (2013), Table A, from September 2011 to September 2012.

4 Mueller (1975); Roy and Ziemek (2001).

5 Menchick and Weisbrod (1987); Steinberg (1990).

6 Sauer (2012).

7 Day and Devlin (1998).

8 Devlin (2001).

The Bureau of Labor Statistics (BLS) collects data annually about volunteer activities in the September Volunteer Supplement to the Current Population Survey. In the CPS survey, a volunteer is defined as person who performed unpaid volunteer activities over the previous 12 months through or for an association, society or group of people who share a common interest.⁹ Volunteering in an informal manner, such as helping an elderly neighbor is not included in the survey. Unpaid work, including internships for for-profit employers, is also not considered volunteer work. However, the survey included volunteer activities that were court mandated, and therefore volunteering may not necessarily be voluntary.

During the 12-month period from September 2011 to September the following year, 26.5 percent of people age 16 and older volunteered at some point. Volunteer hours varied from 1 hour to over 500 hours, and the majority of volunteers performed activities for only one organization. As can be seen in **Table 1**, the incidence of volunteering varied by employment status. A higher share of people who were employed volunteered than people who were unemployed or not in the labor force. However, the typical employed person volunteered fewer hours. Moreover, part-time workers were more likely to volunteer and volunteered more hours than full-time workers. This suggests that paid work does not constrain the incidence of volunteering, but the amount of volunteering.

TABLE 1
Volunteer Rate and Hours by Employment Status, September 2012

	Total	Employed		Unemployed	Not in Labor Force
		Full-time	Part-time		
% volunteer	26.5	28.1	33.4	23.8	22.4
Median volunteer hours	50	45	52	52	61
Avg. # of organizations	1.45	1.45	1.49	1.44	1.1

Source: BLS (2013), Tables 1, 2, 3.

Employed persons are more likely to volunteer for a number of reasons. First, people who are employed, on average, have higher educational attainment than unemployed and people not in the labor force, combined with people with college and higher degrees are more likely to volunteer. In September 2012, 42.2 percent of people over the age of 25 years with a bachelor's degree or higher volunteered in the prior 12 months, compared to 17.3 percent with a high school degree and no college experience.¹⁰ Second, people in prime working age volunteered at higher rates than younger and older people who have lower employment rates because of school and retirement. For instance, the volunteer rate for people age 35 to 44 years was 31.6 percent, compared to a rate of 18.9 percent for young people age 20 to 24 years and 24.4 percent for people over 65 years of age.¹¹

Further analysis of the CPS Volunteer Supplement, September 2011 using probit modeling found that individuals who were employed were 3.5-5.1 percentage points more likely to volunteer than individuals who were not in the labor force, after controlling for education and other individual and

⁹ Volunteer organizations include churches, youth groups, civic organizations, hospitals, animal shelters, museums, and sports clubs.

¹⁰ BLS (2013), Table 1.

¹¹ Ibid.

family characteristics (See **Table 1A** in appendix).¹² The means that a given individual was more likely to volunteer if he/she worked despite being time constrained.

Employed people may have a larger network of friends and colleagues who introduce them to specific volunteer activities. Moreover, employed people may be encouraged through their workplace to volunteer. Though only 2.0 percent of employed volunteers reported that their boss or employer asked them to volunteer,¹³ an increasing number of workplaces have volunteer programs, where the employer donates either employees' time to volunteer activities and/or donates money to organizations with which their employees volunteer.¹⁴

Finally, it may be that people who volunteered in the prior 12 months were more likely to be employed compared to people who did not volunteer. Day and Devlin (1998) proposed three reasons why it may be the case that volunteers may have better job opportunities than non-volunteers: 1) volunteers may acquire useful skills that augment their stock of human capital during their volunteer activities; 2) volunteering may serve as a signal to employers about the quality of work experience or certain immeasurable workers characteristics, such as strong work ethics; and 3) volunteers may gain access to a broader network of professional contacts through their volunteer activities that help them acquiring a job.

Volunteering and employment

From the above analysis, the causality of the relationship between employment and volunteering cannot be determined. It may be that people who are employed are more likely to volunteer compared to people not working, or it may be that people who volunteer are more likely to be employed. To directly address this question of the whether or not volunteering improves job prospects, the analysis estimated non-working individuals' probability of being employed a year later if they volunteered during the 12-month period, using data from the CPS Volunteer Supplement conducted annually in the month of September.

The analysis pooled three years of data from the Volunteer Supplement and accompanying basic CPS survey for the month of September. The structure of the Current Population Survey allows for a year-over-year panel analysis of labor market characteristics, where employment status can be determined at beginning of period (September 2008, September 2009 and September 2010), and then compared to the end of the 12-month period (September 2009, September 2010 and September 2011). In the analysis, employment status could be either employed, unemployed, or not in the labor force. The analysis looked at various measures of volunteering during the 12-month period to capture the amount of volunteering. Finally, the analysis was limited to working-age individuals (ages 18 to 64 years). A probit regression was adopted to estimate the marginal probability of non-working individuals being employed at the end of the period, where the response variable was employed or not employed.¹⁵ The model controlled for individual characteristics, such

12 A probit model is a type of regression analysis used when the outcome variable is a YES/NO variable rather than continuous. In our model, the outcome variable is "Yes volunteered" or "No did not volunteer".

13 BLS (2013), Table 6.

14 Points of Light (n.d.).

15 'Not employed' included both unemployed and individuals not in the labor force.

as age, gender, race, ethnicity, education, region of residence, marital status, and volunteer status. See Appendix A for a technical description of the analysis.

Table 2 shows that volunteering *per se* did not have a statistically significant effect on the marginal probability of being employed by the end of the period (column 1). However, the amount of volunteering did. Non-working individuals who volunteered 20 hours or more but less than 100 hours over a 12-month period were, on average, 6.8 percentage points more likely to be employed at the end of the 12 months, compared to individuals who did not volunteer. However, there were not statistically significant impacts on employment from volunteering a few hours (less than 20 hours per year). Interestingly, volunteering more than 100 hours was also not associated with a higher likelihood of employment. This suggests that people who volunteered a very large number of hours per year may not have been looking for employment, but rather view volunteer work as a substitute to paid work. For these individuals, the accumulation of human capital may be a relatively unimportant incentive.

TABLE 2:
Summary of Marginal Probability Estimates of Employment from Volunteering, by Employment Status at Beginning of 12-month Period, 3 Years Pooled Data, 2008/09 to 2010/11

	Ages 18-64			Ages 18-25
	Non-working	Not in labor force	Unemployed	Young, non-working
Volunteering Y/N	0.0217	.0243*	0.0152	0.0095
Volunteered < 20 hours	-0.0097	-.0351*	0.0318	-0.0367
Volunteered 20-49 hours	.0676**	.0516*	0.0906	-0.1635
Volunteered 50-99 hours	.0685**	.0657**	0.0476	-0.1214
Volunteered >99 hours	0.0195	0.0296	0.0063	.2106*
Sample size	4,925	3,934	991	563

Source: Author's analysis of the Current Population Survey, basic monthly survey in September 2008-2011 and volunteer supplement survey, September 2009-2011 (obtained from CEPR and NBER).

Notes: Probit estimates of marginal probability at the multivariate point of means from various models with volunteering as indicator variables. See appendix Table A2 for model specification. ** denotes significant at a 5-percent significance level, and * denotes significant at a 10-percent significance level.

The analysis further looked at the employment effect of volunteering for individuals who were unemployed (e.g. actively looking for work) at the beginning of the period. The marginal effects for the various volunteer variables are small and not statistically significantly (column 3). This is in part due to small estimated effects as well as smaller sample sizes.

Finally, the analysis looked at the employment effects of young people ages 18-25 years (last column). The estimated marginal effects from volunteering were relatively large (and negative for less than 100 volunteer hours per year), but because of small sample sizes, they were not found significantly different from zero. However, the analysis does suggest that volunteering a substantial number of hours (100 or more hours) may have a positive impact on employment, but with only 194 non-working, young individuals reporting volunteer hours in the sample, the estimates are associated with some degree of uncertainty. With inconclusive findings, more analysis is needed to determine whether volunteering is an effective way to increase human capital, build a professional network and signal employability to employers for young people entering the labor market during an economic recession.

Volunteering and Wages

We know that volunteers, on average, earn higher wages than non-volunteers because of higher educational attainment and possibly unobserved characteristics such as ability. To control for individual characteristics, the analysis examined the effect of volunteering on wage growth, rather than wage level. The human capital model predicts that an employed individual who volunteers experiences faster wage growth compared to an equivalent individual who does not volunteer.

Using the same 3-years pooled data, the analysis examined the change in hourly wages, measured as the difference in natural logarithm, of persons who were employed at both the beginning and the end of the 12-month period by volunteer status. The wage measure used was derived-hourly wages for all earners, not including overtime. Wages above the top code were adjusted by the lognormal distribution.¹⁶ The analysis found that the effect of volunteering on wage growth was statistically insignificant, meaning that wages of employed volunteers did not grow faster than wages of employed non-volunteers, after controlling for individual characteristics and industries (See **Table A3** for regression results). This suggests that volunteering does not impact wage level or wage growth of the typical person.

Discussion of Findings

This analysis examined volunteering as a pathway to employment during a period of high unemployment, 2008-2011. It found a substantial volunteer effect on the probability of employment for persons who were not employed. In the sample, 13.5 percent of non-working persons had found employment 12 months later. Non-volunteers had a slightly lower rate of employment of 12.4 percent; while volunteers had a higher rate of employment. For example, the employment rate of non-working persons who volunteered between 20 and 49 hours per year was 19.5 percent – 57.3 percent higher than the rate of non-volunteers. After controlling for personal characteristics, the analysis estimated that the probability of employment increased by 6.8 percentage points, on average, for a person who volunteered between 20 and 99 hours compared to if that person did not volunteer.

These findings are striking because many volunteers did not volunteer in the professional field in which they were seeking employment. Rather, they may have viewed volunteering as a leisure activity from which they derived enjoyment. For example, some people enjoy volunteering as mentors to children similar to people who enjoy playing golf in their spare time. So while volunteers may gain personally valuable experiences and learn new skills, these are not necessarily applicable to paid employment. Thus volunteers may not necessarily accumulate relevant human capital.

16 See ceprDATA, CPS Basic Programs for Wages, <http://ceprdata.org/cps-uniform-data-extracts/cps-basic-programs/cps-basic-monthly-programs/>.

TABLE 3
Employment Rate of Persons Not Previously Employed, Over a
12-month Period, 3 Years Pooled Data, 2008/09 to 2010/11

Volunteer status	Employment rate (%)
Non-volunteers	12.4
Volunteers: 1-19 hours/year	16.2
Volunteers: 20-49 hours/year	19.5
Volunteers: 50-99 hours/year	18.0
Volunteers: 100+ hours/year	13.3
All	13.5

Source: Author's analysis of the Current Population Survey, basic monthly survey in September 2008-2011, and volunteer supplement survey, September 2009-2011 (obtained from CEPR and NBER). The employment rate is defined as the percentage of non-working persons at beginning of the 12-month period (September to September) who were employed at the end of the 12-month period.

This suggests that the volunteer effect from employment derives primarily from the signaling effect. The volunteer experience conveys information to potential employers about the job applicant's abilities, such as motivation, initiative, creativity, and reliability. This makes volunteering particularly relevant for job applicants with limited prior employment experiences, such as recent graduates entering the job market, and individuals who are re-entering the labor market after a longer break.

Moreover, the analysis found a negligible volunteer effect on employment for volunteers who volunteered less than 20 hours per year. The amount volunteered may be insufficient to accumulate human capital. But more importantly, a few hours of volunteering would be a weak signal about abilities, and thus more likely to be disregarded by potential employers in their hiring decisions.

Due to sample size restrictions, the analysis did not specifically look at the role of volunteer assignments. Likely, volunteering in assignments relevant to the professional field of paid employment would be associated with a larger volunteer effect on job prospects. Not only would the volunteer experience be a stronger signal to prospective employers, but also volunteers would have access to a broader network of professional contacts to support their job search. Therefore, strategic volunteering, in which a volunteer picks the volunteer organization and activities with regards to future employment goals, could be associated with even larger and significant improvement in job opportunities.

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Appendix: Description of Analysis

The Bureau of Labor Statistics (BLS) collects data annually about volunteer activities in the September Supplement to the Current Population Survey (CPS).¹⁷ The survey includes about 26,500 individuals, and data are collected on volunteer status, volunteer hours, types of organizations volunteered with, and volunteer activities performed over the prior 12 months (September to September). The CPS survey defines a volunteer as a person who performed unpaid volunteer activities through or for an association, society or group of people who share a common interest; including churches, youth groups, civic organizations, hospitals, animal shelters, museums, and sports clubs. Volunteering in an informal manner, such as helping an elderly neighbor and unpaid work such as an internship for a for-profit company are not considered volunteer work in the survey.

The datasets used in the analysis were derived from two sources: The volunteer supplement data were obtained from the National Bureau of Economic Research (NBER) Current Population Survey Data; and the pre-coded basic monthly CPS data were obtained from the Center for Economic and Policy Research (CEPR) ceprDATA. The analysis matched the NBER supplement data with the CEPR monthly data for the month of September by four merge criteria: household ID, line number, household counter, and survey month.

The BLS surveys households over a 16-month period. Households participate in the survey for 4 months, then are out of the survey for 8 months, and then re-enter the survey for another 4 months. In the 4th survey month and 8th survey month (the outgoing rotation groups), households are asked detailed questions about employment and earnings and participate in a supplement survey. For example, households that enter the survey in June take the survey in June, July, August and September. In the month of September (4th month) respondents participate in the September supplement on volunteering. They are then out of the survey from October to May the following year. The households then re-enter the survey in June (5th month). The following September (8th month) is the final month of participation. This means that about half of the outgoing rotation group respondents in the September CPS survey were also surveyed in September the previous year. This design of the CPS survey allows for a year-to-year panel analysis of employment status and earnings, where employment and earnings data are matched for respondents who were in the survey 12 months earlier.¹⁸

The analysis matched individual respondents from September in year 1 with respondents in year 0, using the merge criteria of household ID, line number, household counter, and months in sample. To ensure that the matches were valid, they were screened by gender, race and age (within +/- 1 year), and apparent invalid matches were deleted (a total of 765 invalid matches were deleted in the 2010-2011 merge). The final data set consisted of three subsets of data: 2008-2009, 2009-2010, and 2010-2011, where each subset contained data on employment and earnings at the beginning of the 12-month period, volunteer activities over the 12-month period, and employment and earnings at the end of the 12-month period, as well as individual characteristics of the respondents. The three subsets of data were pooled for the statistical analysis.

17 The CPS is conducted by the Census Bureau for the Bureau of Labor Statistics.

18 Madrian and Lefgren (1999).

TABLE A1
Marginal Probability of Volunteering by Individual Characteristics, 2011

	Base model	Earnings model	Income model
Sample size	17,682	17,682	17,682
Age 25-34	0.0198	0.0203	0.0222
Age 35-44	0.0761**	0.0775**	0.0736**
Age 45-54	0.1206**	0.1221**	0.1174**
Age 55-64	0.1173**	0.1183**	0.1176**
Female	0.0737**	0.0728**	0.0758**
African American	-0.0728**	-0.0729**	-0.0663**
Hispanic/Latino	-0.0807**	-0.0810**	-0.0753**
Other	-0.0971**	-0.0972**	-0.0954**
Less than high school	-0.0976**	-0.0979**	-0.0887**
Some college	0.0100**	0.1004**	0.0943**
College degree	0.2314**	0.2338**	0.2120**
More than college	0.3007**	0.3055**	0.2711**
North East	-0.0224**	-0.022**	-0.0273**
Midwest	0.0421**	0.0421**	0.0422**
West	0.0392**	0.0394**	0.0359**
Married	0.0639**	0.0641**	0.0473**
Number of children	0.0484**	0.0485**	0.0493**
Citizen	0.0681**	0.0683**	0.0614**
Student	0.1722**	0.1726**	0.1564**
Employed	0.0460**	0.0509**	0.0354**
Unemployed	0.0281	0.0281	0.0303*
Wage earnings		-0.0003	
Family income \$10-24,999			0.0078
Family income \$25-49,999			0.0182
Family income \$50-74,999			0.0782**
Family income \$75-99,999			0.0708**
Family income \$100,000+			0.0895**

Source: Author's analysis of the Current Population Survey, basic monthly survey, and volunteer supplement survey, September 2011 (obtained from CERP and NBER). Notes: The estimated coefficients are marginal effects at the multivariate point of means derived from a probit model. For all individuals ages 18-64 years. ** denotes significant at a 5-percent significance level, and * denotes significant at a 10-percent significance level.

TABLE A2
Distribution of Volunteers Across Type of Main Organization by Employment Status in the Prior 12 Months, September 2012

<i>(In percent)</i>	Total	Employed		Unemployed	Not in Labor Force
		Full time	Part time		
Total	100%	100%	100%	100%	100%
Religious	33.1	30.0	33.8	31.7	38.1
Educational or youth service	25.5	27.7	27.2	24.6	21.1
Social or community Service	14.2	14.1	12.8	16.8	14.8
Hospital or other health organizations	7.8	8.2	6.8	6.5	8.0
Other	17.1	17.8	17.2	18.2	15.8
Not determined	2.3	2.3	2.3	2.3	2.3

Source: BLS (2013), Table 4.

TABLE A3

Probit Model Estimates of Marginal Probability Effects on End-of-Period Employment from Volunteering over a 12-Month Period for Non-Working Individuals at Beginning of Period, 3 years Pooled Data, 2008/09 to 2010/11

	Non-working at beginning of period			
	Ages 18-64		Ages 18-25	
Sample size	4,925	4,925	563	563
Age 25-34	-0.0449**	-0.0455**		
Age 35-44	-0.0830**	-0.0845**		
Age 45-54	-0.1152**	-0.1154**		
Age 55-64	-0.2139**	-0.2143**		
Female	-0.0672**	-0.0688**	-0.0265	-0.0204
African American	-0.0137	-0.0127	-0.1593**	-0.1586**
Hispanic	0.026	0.0275	-0.0356	-0.036
Other	-0.0254	-0.0258	-0.0619	-0.0571
Married	-0.0101	-0.0113	-0.1154*	-0.1313**
Northeast	-0.0163	-0.0155	0.0099	0.0199
Midwest	0.02	0.0208	-0.0021	-0.0038
West	-0.0189	-0.0181	-0.042	-0.0458
Less than high school	-0.051**	-0.0508**	-0.2397**	-0.2418**
Some college	0.0363**	0.0351**	0.1716**	0.1736**
College degree	0.0939**	0.0907**	0.3779**	0.3885**
More than 4-yr college	0.0965**	0.0922**	0.3198*	0.3163*
Volunteer status Y/N	0.0217**		0.0095	
Volunteered 0-19 hours/year		-0.0097		-0.0368
Volunteered 20-49 hours/year		0.0676**		-0.1635
Volunteered 50-99 hours/year		0.0685**		-0.1214
Volunteered 100+ hours/year		0.0195		0.2106*

Source: Author's analysis of the Current Population Survey, basic monthly survey in September 2008-2011, and volunteer supplement survey, September 2009-2011 (obtained from CEPR and NBER). Notes: Analysis includes individuals who were not working at the beginning of the 12-month period, who were 18-64 years old, and not students by the end of period. The estimated coefficients are marginal effects at the multivariate point of means derived from a probit model. ** denotes significant at a 5-percent significance level, and * denotes significant at a 10-percent significance level.

TABLE 4A
Regression Coefficients of Difference in Natural Log Wages from Volunteering Over a 12-Month Period
for Employed Individuals, 3 Years Pooled Data, September 2008/09 - September 2010/11

	Individuals ages 18-64			
	Volunteer status	Individuals who were not students		
		Volunteer Status	Volunteer by hours indicator	
Sample size	11,866	11,472	10,484	10,484
Age	-0.001**	-0.0009*		
Age 25-34			0.0007	0.0028
Age 35-44			0.0137	0.0146
Age 45-54			-0.0216	-0.0198
Age 55-64			-0.018	-0.0158
Female	0.0031	0.0023	0.0034	0.0056
African Am.	0.0025	0.0065	0.0051	0.0102
Hispanic	0.0114	0.0131	0.004	0.0083
Other race	0.0353	0.0342	0.034	0.0331
Less than high school	-0.0062	-0.0014	-0.0022	0.0011
Some college	-0.0037	-0.0038	0.003	0.0002
College degree	0.0272**	0.0273*	0.0002*	0.0317*
More than college	-0.0259	-0.0269	-0.0016	-0.0232
North East				0.0287*
Midwest				0.0093
West				0.0034
Married			0.0311	-0.0004
# of children			-0.0271	0.0032
Mining				0.0221
Construction				0.0394
Manufacturing				0.0742
Trades				0.0397
Transportation				0.0437
Professional Services				0.0573
Education & health care				0.0406
Recreation				0.0907
Other industry				0.0425
Volunteer Y/N	-0.0048	-0.0032		
Volunteer 0-19 hours/year			-0.0007	-0.0002
Volunteer 20-49 hours/year			-0.0325	-0.0309
Volunteer 50-99 hours/year			-0.0008	-0.0005
Volunteer 100+ hours/year			-0.0061	-0.0043

Source: Author's analysis of the Current Population Survey, basic monthly survey in September 2008-2011, and volunteer supplement survey, September 2009-2011. Notes: The analysis includes individuals who were employed at the beginning and end of the 12-month period, and who were 18-64 years old. ** denotes significant at a 5-percent significance level, and * denotes significant at a 10-percent significance level.