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November 2020

Online at <https://mpra.ub.uni-muenchen.de/103976/>  
MPRA Paper No. 103976, posted 16 Nov 2020 08:13 UTC

# Does volunteering increase employment opportunities? An experimental approach

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November 5th, 2020

## Abstract

We study the benefits of doing volunteer work when seeking employment opportunities. We do so by sending 2000 fictitious curricula to a large online platform of job offers in the United States. Half of these curricula are randomly assigned volunteer activities. We find that people who do volunteer work receive 45 percent more callbacks for interviews. The volunteering premium is not uniform across economic sectors. In retailing and real estate, it is significant, whereas in the other sectors we have studied (animal service, technology and automobile) it is not.

Keywords: job market, volunteering, field experiment.

JEL Classification Numbers: C93, J71, J64.

## Highlights:

- We study volunteering and job market opportunities
- Fictitious job applications are sent to real vacancies in the United States
- There is a volunteering premium in the retail and real estate sector

## 1. Introduction

Approximately 25% of the United States population engages in volunteering activities, according to the Bureau of Labor Statistics Handbook (2018). This high incidence of volunteering is a widespread phenomenon in other OECD countries as well (Baert and Vujić, 2018). Given the considerable amount of pro-social behavior observed, there has been a significant interest in studying the economic consequences of these activities. We devote our study to answering the following questions: Does volunteering increase employment opportunities? Does it depend on the economic sector?

There are empirical studies on the job market outcomes of volunteers conditional on gender (Sauer, 2015) and social class (Wilson et al., 2020). Experimentally, there are also related works that focus on the job market in Belgium (Baert and Vujić, 2016, 2018) and others that analyze specific types of activities such as sports volunteering (Wallrodt and Thieme, 2020).

We contribute to this literature by being the first, to the best of our knowledge, to perform a field experiment about volunteering in the United States job market considering a well-known American online professional networking website in which job candidates post their CVs. This platform generates one of the leading social networks in the world, with about 706 million registered users in 150 countries. The job offers considered in this experiment were all regarding salesmen positions in five relevant economic sectors; real estate, retail, animal service, technology and automobiles. We chose salesmen positions exclusively because, given the simplicity of the curricula generated for the experiment, no specific knowledge or hard skill should be required for the job.

## 2. The experimental design

We generated a profile in one of the main online job search platforms in the American market. We then tested the effects of volunteering with respect to hiring chances in the sales occupation. The generated resume does not belong to an actual job seeker (see the exact CV in the online Supplementary Material). We provided the minimum required information about the candidate for the platform to generate our resume. The information about volunteering was included as a note stating the following: “Volunteer at civil rights and social action”.<sup>1</sup> Once we created this fake curriculum, we cloned the profile and removed the volunteering note. The firms receiving the CV without volunteering experience constitute the control group, whereas those receiving the CV with volunteering activity constitute the treatment group.<sup>2</sup>

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<sup>1</sup> This exact sentence appeared in 3,080,539 other curricula posted in the professional network used in our study at the time when the experiment was active.

<sup>2</sup> In most of the previous literature, equivalent but not identical curricula were generated (e.g.,

The impact of volunteering activity is analyzed in five distinct sectors, or industry groups: retail, real estate, animal service, automobile and technology.<sup>3</sup> Only job vacancies in such sectors were considered. As a two-year experience in a sector was required for applying to it, the CV included ten years of experience as a salesman, two in each sector. To maximize the probability of a callback the most recent experience was always in the sector to which the application was being sent and the others were ordered randomly. Moreover, we avoided using the name of any firm in the CV to avoid the deterioration of its brand.

The experiment was carried out between March and April, 2018. Over that period, we randomly sent 400 curricula (200 without volunteer work and 200 with volunteer work) to vacancies in each of the five sectors contemplated above. Although some sectors are larger than others (e.g., 61.3% of job vacancies belong to retail, 12.4% to technology, 11.8% to automobile 10.9% to real estate and 3.7% to animal service) we decided to send the same number of applications to each sector to make results more comparable. The total number of applications sent was bounded by 2000 in order to avoid being blocked by the system for suspicious behavior. In addition, presumably this reduced the negative impact that our experiment could cause to the online labor market.

Applying for a job position consisted in sending an email through the platform to a firm (or recruiter). Some job applications are not reviewed by the firms, i.e., the firm did not even open the CV. This information is used to calculate the set of firms that indeed participated in the experiment. Consequently, we deleted from the overall firms sampled (i.e., 400 in each sector) those firms that suffered from attrition. Given the nature of our research question, however, we do not incur in attrition bias since no information regarding the candidate was available unless the CV was opened. Furthermore, in aggregate we find no significant difference between the number of CVs revised in the control and volunteer treatments which suggests that the online platform was not biased in any way across treatments either. If we received a response from the firm requesting more information or an interview, this was considered as a “callback”. In such a case, we immediately responded indicating that we were no longer interested in the job as to minimize the negative effects on the market that our experiment could be causing. If, otherwise, the firm (having opened the CV) did not respond or did so indicating that it was not interested, this was considered as “no callback” (the code and raw data can be found in the online Supplementary Material).

This experiment, as is common in this literature (see, e.g., Bertrand and Mullainathan, 2004 and Baert and Vujić, 2018), relies on deception. We believe, however, that since a lack of veracity is endemic in these markets and minimal inconvenience is imposed on the

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Wallrodt and Thieme, 2020). We have, instead, just considered one candidate to provide cleaner results.

<sup>3</sup> Although, for simplicity, we will use the word sector throughout the paper, this terminology does not coincide with the one provided in the Global Industry Classification Standard (GICS).

entrepreneurs, this experimental strategy is justified in this context. Moreover, the technique provides evidence with a degree of accuracy and transparency which is not available from any other procedure (Riach and Rich, 2004).

### 3. Results

In this section we present the results of the paper. We compare the behavior of firms, namely the callback percentage, in the two different treatments considered, the Control Treatment and the Volunteer Treatment.

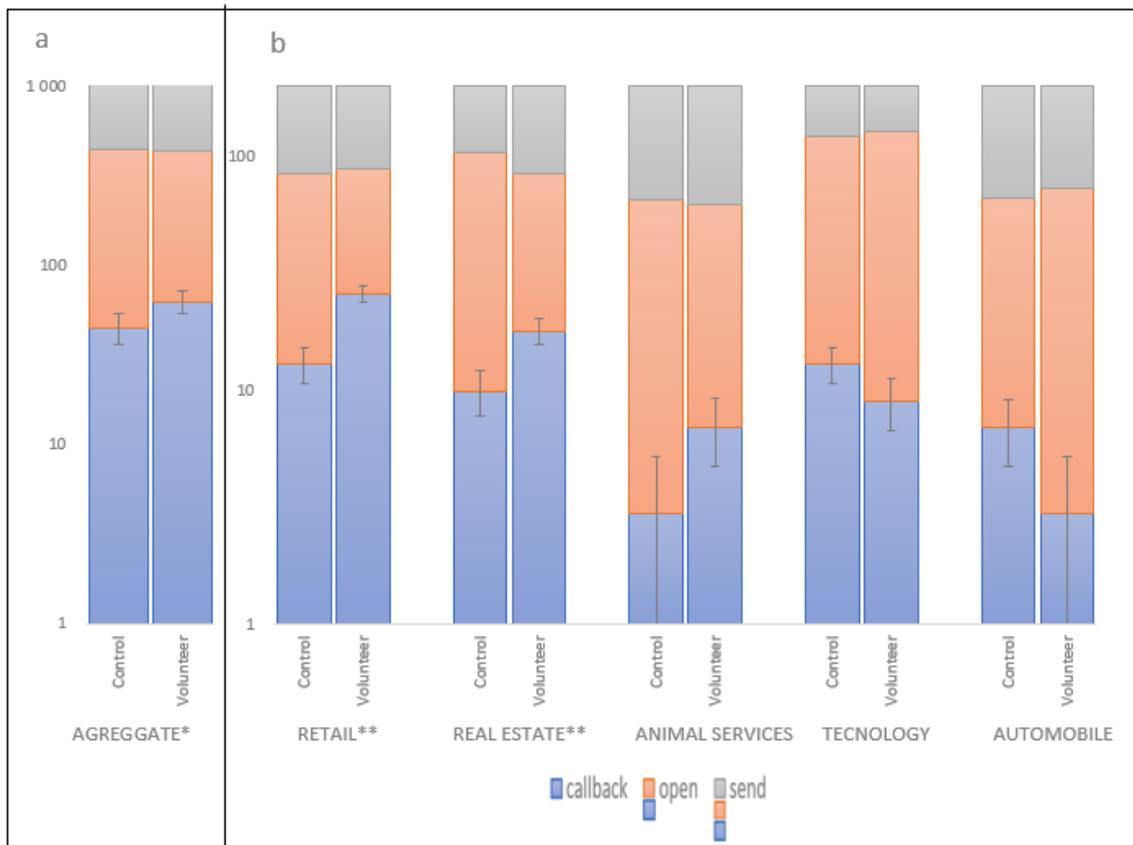


Figure 1: “Panel a” presents the results in aggregate and “panel b” separated by sectors. The bars at the end of the blue columns show the standard errors. The stars in the columns’ labels indicate whether the differences between Volunteer and Control Treatments are significant at a 10%, \*, 5%, \*\*, or 1%, \*\*\* level. The scale used is logarithmic.

Figure 1 represents, in a logarithmic scale, the number of curricula sent (grey+orange+blue), opened (orange+blue) and callbacks (blue) in aggregate (panel a) and for each sector separately (panel b), in the two treatments (Control and Volunteer). Table 1 displays the relevant values which support our results regarding the curricula sent,

opened and callbacks, where the percentages of callbacks are computed conditional on those applications opened (see columns 2, 3 and 4, respectively). The difference in behavior between the treatments is presented in percentage points in column 5. Finally, column 6 shows the significance of the corresponding t-tests.

SECTOR	SEND (C; V)	OPEN (C; V)	CALLBACK (C; V)	DIFF (V-C)	T TEST
<b>RETAIL</b>	200; 200	42.00%; 44.50%	15.50%; 29.20%	13.70	**
<b>REAL ESTATE</b>	200; 200	52.50%; 42.50%	9.50%; 21.20%	11.70	**
<b>ANIMAL SERVICES</b>	200; 200	33.00%; 31.00%	4.50%; 11.30%	6.70	
<b>TECHNOLOGY</b>	200; 200	64.00%; 61.50%	10.60%; 7.00%	-3.50	
<b>AUTOMOBILE</b>	200; 200	33.50%; 36.50%	10.45%; 4.11%	-2.00	
<b>AGGREGATE</b>	<b>1000; 1000</b>	<b>44.50% ; 43.70%</b>	<b>10.10% ; 14.40%</b>	<b>4.30</b>	<b>*</b>

Table 1: Main results. V stands for the Volunteer Treatment and C for the Control Treatment. The t-test column shows through stars when the difference is statistically significant at a 10%, 5% and 1% level.

We start by presenting the aggregate findings and then analyze the five economic sectors separately. As illustrated in panel (a), Figure 1, and the last row of Table 1, a 44.10% of curricula were opened (882 from the overall 2000 sent), 44.50% of which belonged to the Control sample and 43.70% to the Volunteer sample (a difference that, as expected, is not significant).<sup>4</sup> The number of callbacks was indeed significantly higher in the Volunteer Treatment than in the Control Treatment (63 versus 45). Specifically, the percentage of callbacks conditional on having opened the CV was 14.4% in the Volunteer case versus 10.1% in the Control case, which implies an advantage of at least four percentage points for the candidate with volunteering information. Notice that the order of magnitude of this volunteer premium is close to those found in the related literature for negative discrimination regarding other characteristics such as ethnics (see e.g., Bertrand and Duplo, 2017).

If we consider each sector separately, as illustrated in panel (b) in Figure 1, the number of callbacks are higher for the Volunteer Treatment than the Control Treatment in retail, real estate and animal service, whereas the opposite occurs in technology and automobile. In fact, the effect of volunteering is significantly positive in retail and real estate, and not significant in any of the other sectors analyzed. As shown in the last column of Table 1, in retail and real estate volunteering increases the chances of callback by 13.70 and 11.70 percentage points, respectively, an effect which is significant at a 5% level in both cases.

<sup>4</sup> To perform the study our fake candidate enjoyed a premium subscription to the platform which, in part, enhances the visibility of his applications.

## 4 Discussion

We find that, overall, volunteering increases the chances of callbacks by more than 45 percent (4 percentage points). Such increase is not uniform across economic sectors. In retailing, real estate and animal service this increase is positive (although not significant for animal service), whereas in automobile and technology there is a decrease in callbacks, but not significant.

It is left for future research to analyze which are the sectors' features that are responsible for modulating these pro-social preferences. And, which are the most valuable soft skills acquired or specified by doing volunteer work for firms. Finally, we could proceed with this study by enlarging the set of curricula to account for different qualification levels within the salesmen category, or even applying for other types of jobs.

## Acknowledgments

We thank Pablo Brañas, Natalia Jiménez and Marisa Hidalgo for helpful comments. Support from Ministerio de Ciencias, Innovación y Universidades (ECO2017-83147-c2-1-p, ECO2017-83147-c2-2-p) is gratefully acknowledged.

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# Supplementary material

The candidate's name and last name were randomly selected from a phone book from New York. In particular, it was a male name with a prevalence of 0.5% in the US. We also indicated that the candidate lived in the Greater New York City Area and the VNP from which the resume was being sent was from Manhattan. We created an email address and a phone line which only had a voice mailbox attached to it with an automated message recording.

The screen presented below illustrates how the employer received the job application and CV. We simply show the Control CV since the Volunteer CV was the same but with an additional bullet appeared with the sentence: “Volunteer at Civil Rights and Social Action Foundation”. The firm’s name has been covered to preserve its anonymity.



Hi Kyle,

You have received an application for [REDACTED] from [ANDREW REDMOND](#)

## ANDREW REDMOND

**Salesman 10 years**  
Greater New York City Area |

### Past

- Car Salesman at Motor Car
- Seller at Pet supplies
- Sales at Mobile company
- Salesman at Retail
- Seller at real estate and mortgage

**Recommendations** 0 people have recommended [ANDREW REDMOND](#)

**Connections** 0 connections

**Contact Information** [andrew.red1987@gmail.com](mailto:andrew.red1987@gmail.com)  
Phone: 2025551494

[View full profile](#)

If the employer decided to view the full profile by clicking at the corresponding button the following information appeared (notice that we have provided the profile of the Volunteer CV in this case):



## ANDREW REDMOND

Salesman 10 years

New York, New York

[Join to Connect](#)

### Experience

-  **Volunteer**  
Civil Rights and Social Action Foundation  
Jan 2008 - Feb 2018 · 10 years 2 months
-  **Car Salesman**  
Motor Car  
Feb 2016 - Jan 2018 · 2 years
-  **Seller**  
Pet supplies  
Feb 2014 - Jan 2016 · 2 years
-  **Sales**  
Mobile company  
Feb 2012 - Jan 2014 · 2 years
-  **Salesman**  
Retail  
Feb 2010 - Jan 2012 · 2 years
-  **Seller**  
real state  
Feb 2008 - Jan 2010 · 2 years  
Greater New York City Area

### Volunteer Experience

-  **Volunteer**  
Civil Rights and Social Action Foundation  
Civil Rights and Social Action