Assigning a Value to Volunteering in Requests for Proposals

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Abstract

The economic value of volunteering is an increasingly important part of volunteering management. It has become part of public policies. Some requests for proposals (RFP) enable nonprofits to include the value of volunteer time in compulsory co-financing. These RFP include the European Economic Area (EEA) Grants and Norway Grants. This article addresses the relationship in the value of volunteering, also called in-kind volunteering contributions. The research includes two case studies of finances from EEA and Norway Grants in the Czech Republic: the Czech NGO Programme, responsible for allocating grants between 2009 and 2014, and the Active Citizens Fund, responsible for allocating grants between 2014 and 2021. They share elements through the EEA and Norway Grants rules. However, they use different types of specialist replacement wages. The article summarizes the arguments for including in-kind volunteering contributions. It presents the possible values of these contributions in the selected cases, including the relationship between the type of volunteering and the number of hours necessary to achieve these values. The article defines the theoretical basis for calculating the value of in-kind volunteer contributions and illustrates this with real examples of allocations from EEA and Norway Grants.

Keywords

request for proposals, financial management, European Economic Area, Czech Republic, volunteering

Introduction

Every year, governments, foundations, and other institutions open a variety of requests for proposals (RFP). Although some RFP offer full coverage of costs, others require compulsory co-financing. Some co-financing strictly requires money; sometimes it is possible to use in-kind contributions, such as volunteering. How should volunteer work be priced for the purposes of project accounting and administration? This question has become even more acute during the COVID-19 crisis, with many public beneficiary organizations endangered and governments, companies, foundations, and even the general public considering additional financial contributions.

Assigning values to goods and services has been a subject of economic research for centuries. On the standard market, the price of a commodity or service is usually assigned through the mutual interaction of supply and demand. Assigning a value to nonmarket commodities or services is more complicated, as are the production factors that do not directly enter the standard market, such as volunteering. However, many economists have argued that volunteering has a significant value (Salamon et al., 2011) and that this value can and should be quantified. The argument for including volunteering in in-kind contributions, and therefore in co-financing, is that although volunteering is by nature done by free will and without a salary, it is a special case of labor, a production factor.

The debate over whether the value of volunteering can and should be quantified is at least half a century old (see Dostál, 2020). The question is no longer whether the value of volunteering should be quantified, but mainly how and by which methods and sometimes even how to interpret the results. Research studies on the value of volunteering have visibly increased, but there are still several gaps in the literature. One gap concerns including the value of volunteering in compulsory co-financing as a part of RFP. This involves assigning a financial value to volunteer time. The economic evaluation of the time of volunteers has been the focus of many studies (e.g., Brown, 1999; Ironmonger & Soupourmas, 2009; Salamon et al., 2011). Several attempts were made to define the whole (or complex) value of volunteering (Haldane, 2014; J. M. L. P. Mayer & Costa e Silva, 2017). P. Mayer (2003) offered an interesting perspective by researching the indirect value of volunteering. Other studies, such as

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one by Roy and Ziemek (2000) presented a microeconomic background for volunteering analysis, which was also valuable in terms of the theoretical background of the value of volunteering. The International Labour Office (ILO) Manual on the Measurement of Volunteer Work (ILO, 2011, p. 36) notes consensus among most "researchers in the field that this is the most reasonable method for estimating the economic value of volunteer inputs." However, little information can be found in the literature on the methods of valuation as a part of compulsory co-financing for the purposes of RFP. Most importantly, the question remains of how the choice of valuation method influences the grant applicant's eligibility for funding.

Co-financing in general refers to partially covering the cost of a project or activity. It usually applies in grants provided by public or private institutions. Co-financing can be provided by international organizations, countries, local governments, and even private entities like for-profit firms or nonprofits (also called non-governmental organizations or NGOs). The grantor sets the parameters of the RFP, including the costs that are (or are not) acknowledged as project costs. These costs need not be financial; an additional special category is called an "in-kind contribution." The most common in-kind contribution among nonprofits is voluntary work. Some literature mentions including the value of volunteering in co-financing, for example, Flanagan and Sadowski (2011) noted case studies from Wales and Italy.

This article deals with the value of volunteering in European Economic Area (EEA) Grants and Norway Grants. The EEA and Norway Grants are closely connected to countries in the European Union (EU) with some parallels to EU funds. The EEA consists of EU member countries and three countries of the European Free Trade Association (EFTA): Iceland, Liechtenstein, and Norway. The fourth EFTA country, Switzerland, is not a member of the EEA or the EU, but it has "negotiated a series of bilateral treaties governing its relations with the EU" (Dhingra & Sampson, 2016, p. 5).

This article focuses on the assignment of the value of volunteering in project proposals and on the impact of the assignment of the value to the eligibility of nonprofits to apply for funding. It examines the RFP conditions for including the value of volunteering in compulsory co-financing in the Czech distribution of EEA Grants toward nonprofits between 2009 and 2021.

Theoretical Framework

Economic Dimension of Including the Value of Volunteering in Project Costs

Calculating the value of volunteering into the project costs may affect the eligibility of nonprofits to apply for funding.

While this value is sometimes called the dollar value of volunteering (see Ironmonger, 2000), its calculation does not

directly create any money, although it may help to redistribute financial resources from one organization to another.

Smith (2005, p. 371) wrote, "Government funding can often be a boon to nonprofit agencies struggling with resource constraints because it can allow nonprofit agencies to expand services and improve quality." In this way, calculating the value of volunteering into the project cost can allow nonprofits to expand their services or to improve the quality of their services. However, enabling the possibility of including the value of volunteering in the project cost is dependent on several conditions. First, grantors often require that the nonprofit have some finances available to co-finance the project (Herzer & Nunnenkamp, 2013); it is not very common that all the co-financing could be covered solely by volunteer inkind contributions. This situation is connected to the international trend to obtain money for nonprofits in other ways, such as fundraising from private donors or internal economic activity.

In terms of financial health, governmental contracting has advantages and disadvantages. It may enable nonprofits to enact projects or activities that would otherwise not exist. In this way, it may help nonprofits to find resources for their intended activities or projects. However, as Smith (2005, p. 375) noted, governmental contracts can "undermine a nonprofit's financial stability." Government financing often increases the pressure to generate evidence of value and impact, as well as evidence for the purposes of government project control, audits, and so on (Bovaird & Loeffler, 2012). Bovaird and Loeffler (2012, p. 1130) wrote that "new ways to account for value in accounting and performance management systems, and of building a business case which convinces key stakeholders, may be needed if the potential contribution of co-production is to be fully appreciated."

Brudney and Meijs (2009, p. 565) offered a "new regenerative approach to help manage the volunteer resource more sustainably" and proposed (p. 577) a "conceptualization of volunteer energy as a natural resource" that can be left idle, used sustainably, or exhausted by inappropriate use. Calculating the value of volunteering into the project costs may be a means by which government grantors can influence the use of this renewable resource, helping with what Handy and Mook (2011, p. 412) called the "optimal use of volunteer labor" by revealing the value volunteering has for them and by supporting organizations using volunteer labor in having enough resources for proper volunteer management.

Including the value of volunteering in project costs is closely connected to the eligibility of voluntary organizations to apply for funding in compulsory co-financing. Enabling in-kind contribution can lower the competitive disadvantage.

Volunteering as a Subgroup of Labor

Volunteering is a subgroup of labor, more specifically of unpaid labor (see Anheier et al., 2003; Salamon et al., 2011),

and is therefore a factor of production. If the work is done for the project and helps to achieve its goal, it seems logical to include it in the project cost, thereby providing more precise data for project evaluation.

Microeconomic theory offers an argument for this. We used a Cobb–Douglas production function (see Handy & Brudney, 2007): $Y = AK^{a}L^{1-a}$, s.t.: A > 0 and 1 > a > 0, where K represents capital, L represents labor, A is a scale factor, and a is a parameter representing the share of output capital contributes. The function is linear, homogeneous with constant returns to scale. Because of the diminishing marginal productivity law, the first partial derivatives of product Y, with respect to capital K and labor L, will be positive, whereas the second derivatives will be negative. Because the Cobb–Douglas function meets these conditions, the marginal product of labor L can be formulated as MPL = ((1-a)*Y)/L and the marginal product of capital K as MPK = (a*Y)/K (Handy & Brudney, 2007).

According to Handy and Brudney (2007), labor consists of paid labor [*LP*] and volunteer labor [*LV*]: $L = L_p + mL_v$, where *m* is the relative productivity of volunteer labor compared with paid labor. It can have three forms: if volunteer labor is as productive as paid labor, then m = 1; if less productive, m < 1; and if more productive, m > 1. The production function as formulated by Handy and Brudney (2007) is $Y = AK^a (L_p + mL_v)^{1-a}$, where A > 0 and 1 > a. Volunteer labor is a subgroup of labor, a factor of production, and it can contribute to the final product.

Another related argument deals with the challenge for some nonprofits to obtain finances to cover co-financing. Many grantors require co-financing, which can be a problem if there are limitations stating that co-financing may not come from another grant. Including the value of in-kind volunteering contributions in co-financing equalizes the unpaid volunteer work with the other factors of production, paid work, and capital.

A study by Salamon et al. (2011) showed that the worldwide yearly economic value of volunteering is enormous. They concluded that if all volunteers lived in one country, it would be the second most populated country in the world with the seventh-largest economy. However, there has been significant discussion of whether volunteer labor is a substitute or a complement. The most popular method of calculating the value of volunteering is the replacement wage. This method considers the question of how much it would cost to replace volunteer workers with paid workers.

There is an economic rationale for including both paid labor and volunteering as contributions of a nonprofit. One argument is the production function by Handy and Brudney (2007), in which volunteering is a subgroup of labor; a second argument is the substantial significance of the economic value of volunteering worldwide (Salamon et al., 2011). A third argument was presented by Bowman (2009): volunteers work together with paid staff to increase the quality and/or quantity of the final output.

Value of Volunteering in RFP

Nonprofits are not traditionally associated with government contracts and funding; however, Smith (2005, p. 371) wrote about the "major restructuring of the provision of public services" in recent decades, noting that "increasingly, public services are provided by nonprofit service agencies through government contracts." In fact, as Lu (2015, p. 306) observed, "for most nonprofits, especially human service nonprofits, government funding constitutes at least one of the most important funding sources." Obtaining funding for projects that use volunteer labor is connected to the valuation of volunteering in the context of the demand for regulation, accountability, and performance management (Smith, 2005). More importantly, donors and funders are among the drivers of the increasing demands for the evidence of the value of volunteering (Rochester et al., 2010). There is a lack of literature on including the value of volunteering in compulsory co-financing as a part of RFP. The basis of this problem is assigning a financial value to volunteer time. Volunteer labor is an input that needs to be quantified in terms of money. Other studies used a more complex and analytically difficult approach: the contingent valuation (Orlowski & Wicker, 2016).

The grantor has to work with some sort of proxy, declared or observed. RFP usually use observed market proxies. There are three general aspects of economic valuation: inputs, outputs, and impacts (see Salamon et al., 2011). The dimension of volunteering addressed in this article are inputs, or more precisely the work the volunteer performs. The valuation in an RFP is usually focused on inputs. This is logical, as the reason for assigning the value of volunteering in this process is to include it in the project cost as an in-kind contribution of the applicant. As Bowman (2009) indicated, volunteers are often in complementary relationships with paid workers in producing goods or services. Therefore, it is possible in some countries to include the value of the labor of both volunteers and paid employees in the project cost as part of the compulsory co-financing.

Even though there is a consensus that the value of volunteering for co-financing can be assigned by the replacement wage approach using observed market proxies (see Salamon et al., 2011), many questions remain. First, will the approach use a single generalist wage or several specialist wages? The generalist wage is easier to process, but it does not reflect the specific characteristics of various types of volunteering. There are various types of generalist wages; the best known is the minimum wage. However, this value is set by the government, and governmental action can change this value, even several times in a year. Other methods are derived from this one, such as the guaranteed wage (Dostál & Vyskočil, 2014), which is possible to use in countries with different levels of guaranteed wages based on the character of the work.

The problem of assigning the value of volunteering concerns the value of inputs in terms of the time of volunteers; it is also connected to the outputs and impacts of volunteering (see Salamon et al., 2011). Rochester et al. (2010) called it "making a difference." Volunteer work with a positive value can make a difference: It can have a positive impact. Economically speaking, valuable volunteer work can induce other valuable goods or services or increase the value of goods or services. This is one reason grantors enable including the value of volunteering in the project costs and compulsory co-financing: It can contribute to the final outputs and impacts.

Material and Methods

Aim, Research Questions, and Case Study Selection

This article aims to identify how the value of volunteering influences applicant eligibility for funding in a selected case. The first objective was to identify the formal relationship between the value of volunteering and applicant eligibility. The second objective was to calculate the financial amounts in which the grantee can report in-kind volunteering contributions (represented by the value of volunteering) instead of financial contributions to the project. The third objective was to calculate the combinations of different types of volunteer activities to create such value.

I chose three research questions:

Research Question 1: What is the formal relationship between the value of volunteering and grant applicant eligibility for funding, based on the selected cases?

Research Question 2: What are the financial amounts the applicant can report as in-kind volunteer contributions in the selected cases?

Research Question 3: What is the relationship between the type of volunteering and the number of hours necessary to achieve certain financial contributions?

The economic assignment of the value of volunteering is traditionally understood as a quantitative problem; I use a quantitative approach in this study. According to Levy's (2008) typology of case studies based on their purposes, this case study can be classified as a plausibility probe study. As Levy (2008, p. 6) wrote, this kind of study is used to probe "the details of a particular case in order to shed light on a broader theoretical argument."

I conducted a literature review with a focus on the value of volunteering. The research then focused on the prices of volunteer labor that can be calculated in project costs. There are project calls in many countries, and they can vary in many aspects. For this research, I chose one project call that met three conditions: the value of volunteering is not centrally given by law, but it is legally possible to input the value of volunteering in the project costs; the project call used specialist wages, respecting at least the basic principles of Salamon et al. (2011) and the ILO (2011); and finally, replacement wage data were available. The Czech distributions of the EEA and Norway Grants were selected based on these criteria.

This article focuses on the assignment of the value of volunteering in project proposals and on the impact of assigning that value on the eligibility of nonprofits for funding, specifically examining the Czech distribution of EEA Grants: the Czech NGO Programme (CzP) and the Active Citizens Fund (ACF).

Calculating the Value of Volunteering

There is a formal relationship between volunteer hours, replacement wages, and the value of volunteering. The data sources for calculating the value of volunteering include RFP documentation and alternative methods of valuation. The basic definition of the value of volunteering for project documentation is $v = h^*w$, where v represents the value of volunteering, h the number of volunteer hours, and w the replacement wage. Using the terminology of Salamon et al. (2011), this approach focuses on the inputs of volunteer work (more specifically volunteer work as the main input), using a replacement cost valuation strategy.

The same formula can be applied using the generalist wage. However, both programs in this study use specialist wages. Although the value of their volunteering methodologies share most design features, they use relatively different sets of replacement wages. The general formula for calculating the value of volunteering using specialist wages is $v = \sum_{i=1}^{n} h_i * w_i$. In this formula, i = 1, where $i = (1, 2, \ldots, n)$ n), meaning that each volunteer hour is valuated by a onedimensional replacement value, typically the type of the work in the given country. This is in accordance with ILO (2011) recommendations and the research by Salamon et al. (2011). This approach was used by the ACF (2020), following the methodology of Dostál et al. (2020) with nine replacement wages reflecting nine basic types of work (ACF, 2019). Their method uses data from the National Information System on Average Earnings in the form of hourly median wages in the nine basic categories of the International Standard Classification of Occupations (commonly referred to as ISCO, or CZ-ISCO in this case).

The CzP adapted a much more ambitious and analytically demanding methodology, illustrated with the formula $v = \sum_{i,j=1}^{n} h_{ij} * w_{ij}$, where i = (1, 2, 3, ..., n), j = (1, 2, 3, ..., n), and the *i* still stands for the type of the volunteering, but *j* stands for the region where the volunteering was performed.

stands for the region where the volunteering was performed. The value of volunteering is still the sum of all the volunteer hours valuated by the replacement wage, but the wage reflects both the type of work and the region where it was performed. The CzP included data for 24 types of volunteer activities/ professions and 14 regions in the Czech Republic, which in total are 336 volunteering price combinations. In the project documentation, these data were presented in 14 separate tables (one for each region). I have put them into a 24*14 matrix, included in the Appendices. Based on this matrix (and the maximum value of volunteering that could be calculated in the project funding with a minimal financial contribution), I calculated another two matrices. These matrices reflected the number of volunteer hours required to create each value.

I calculated the basic descriptive statistics (median, mean, and minimum and maximum values) for each type of volunteering and each region for the replacement wage itself and for the hours necessary to achieve the minimum level of financial co-financing.

There is another significant difference between these two programs. The CzP has financial amounts in the local currency, Czech koruna. It is worth noting that all three donor states have different currencies (Icelandic króna, Norwegian krone, and Swiss franc in Liechtenstein). ACF, however, has the amounts in euros, and the average monthly exchange rate (CZK/EUR) of the Czech National Bank has to be used for calculating project expenditures, while the "exchange losses debit to project promoter" (ACF, 2019, p. 6). I used monthly exchange averages for 12 months (September 2019 to August 2020) to cover these differences.

To identify the possible impact of the different prices of volunteer labor, the basic descriptive statistics of volunteering prices (for the purposes of project accounting) were used. The same descriptive statistics were used in terms of hours necessary to achieve particular economic situations. Based on the project call documentation, a maximum value of volunteering was calculated that could be figured in the cofinancing as an in-kind contribution, using the minimum level of financial contributions for two situations: maximum financial support from the grantor and minimum financial co-financing from the grantee.

Formulas for Calculating Grant Levels and Levels of Eligible In-Kind Contribution

To make the findings of this research as universal as possible, the formulas used for the calculations are stated in this article. The program documentation specifies the basic parameters as minimum and maximum grants for the various types of calls, minimum level of co-financing, or maximum rate of co-financing that can be covered by the value of volunteering. These parameters are described in sentences in the documentation; for research purposes, they are presented as mathematical formulas.

The main formula is that the total cost consists of grants and co-financing: TC = g + cf, where TC stands for total costs, g stands for grant, and cf for total co-financing. Total co-financing in this case means both the financial

The minimum level of total co-financing (financial and in-kind) is set in relation to total costs; thus, $cf_{min} = TC^*cf_r$, where cf_r stands for the co-financing rate. Similarly, a maximum level of funding is usually set comparing total costs: $g_{max} = TC^*g_r$, where g_r stands for the grant rate, s.t.: $g_r = (0,1)$. Therefore, the total costs need to be calculated for the minimum and maximum grants using the formula: $TC = g^*g_r$.

From this formula, the formula for calculating the grant g based on the total costs and the level of the grant to total costs can be expressed from 0 to 1.

The value of volunteering in the RFP. To obtain a formula to define the value of volunteering, a basic formula is needed that defines the total cost as a sum of the grant and total co-financing (financial and in-kind): TC = g + cf, and a formula is needed that defines the total co-financing as the sum of financial contribution and in-kind contributions: $cf = cf_f + v$, where cf_f stands for financial co-financing and v for in-kind volunteer contributions (value of volunteering). We can define total costs TC as $TC = g + cf_f + v$ and the value of volunteering v as $v = TC - g - cf_f$

The other way to define the value of volunteering is based on the relations of the total co-financing to the total costs and in-kind volunteer contribution to the total co-financing. In this way, it is possible to say that the value of in-kind volunteer contribution v is lower or equal to the product of total costs times these two rates. Therefore, $v \leq TC^*cf_r^*v_r$, where cf_r stands for the rate of the minimum total co-financing regarding the total costs and v_r is the share of the in-kind volunteer contributions related to the total co-financing, s.t. $cf_r = (0,1), v_r = (0,1).$

Results

This part introduces the two case studies, CzP and ACF. It then presents results for in-kind volunteer contributions eligible for co-financing. Finally, it presents results for the hours needed to achieve the level of in-kind volunteer contributions.

CzP and ACF

The two case studies were the CzP and the ACF. They both distribute EEA and Norway Grants to nonprofits, but in different time periods (2009–2014 and 2014–2021) and by different program operators. More importantly, they use different methodologies for calculating the value of volunteering. The EEA and Norway Grants give program operators relative freedom to choose the method of valuating the volunteering, but at the same time guarantee some fundamental RFP parameters.

	Price of the volunteer per hour (EUR)					
Types of volunteer activity	Median	М	Minimum	Maximum	Mode	
Volunteer in a preschool care	5.8	5.9	5.7	6.7	5.8	
Volunteer in public relations or human resources, fundraiser	5.8	5.7	4.4	6.8	5.6	
Volunteer for leisure activities and informal education	5.8	5.9	5.7	6.7	5.8	
Graphic work	5.1	5.1	4.7	6.0	5.2	
Volunteer coordinator	5.6	5.7	4.7	7.4	6.4	
Medical help	11.1	11.0	7.7	15.3	N/A	
Project management and coordination	5.6	5.7	4.7	7.4	N/A	
Sales support	3.8	3.9	3.8	4.9	3.8	
Helping with personnel assistance (social worker)	4.6	4.6	4.3	5.4	4.6	
Helping with translations/interpretations	4.3	4.4	3.9	5.6	N/A	
Legal services	5.1	5.I	4.7	6.0	5.3	
Psychologist	5.9	5.6	4.6	6.7	6.1	
Rehabilitation worker, physiotherapist	5.2	5.2	4.6	5.9	N/A	
Specialized activity for environmental or social care	5.6	5.5	4.7	6.7	5.7	
Field worker (for environmental activities), guide	4.1	4.I	3.0	4.7	4.1	
Teachers for working with target groups	5.8	5.9	5.7	6.7	5.8	
Nurse	6.4	6.6	5.9	7.7	6.1	
Helping with operational administrative work	4.3	4.4	3.9	5.6	4.1	
Helping with distributing fliers	3.3	3.4	2.7	3.9	3.3	
Helping with cleaning work/manual activities	2.7	2.7	2.4	3.0	2.7	
Kitchen help	3.2	3.2	2.9	3.3	3.2	
Helping with financial administration	5.3	5.3	4.9	6.0	5.3	
Webmaster, other activities in Information and communications technology	5.7	5.7	5.0	6.8	5.7	
Health assistant	3.7	3.8	3.4	4.5	3.6	
Total	5.2	5.2	2.4	15.3	6.0	

Table 1. Czech NGO Programme—Types of Volunteering Activity and Their Unit Prices (EUR).

Source. Constructed by the author based on Fond pro nestátní neziskové organizace/Czech NGO Programme (2014).

The EEA and Norway Grants rules state the following:

- "In-kind contribution in the form of voluntary work may constitute up to 50% of the co-financing required for the project" (with some exceptions for higher rates);
- The unit prices of volunteering shall be specified by the program operator "by salary normally paid for such work in the Beneficiary State, including the required social security contributions."

The second condition implies using specialist wages so that the price unit of voluntary labor can be according to the salary for "such work." The optional conditions are that "prices may vary depending on the region in which the work is performed or the type of voluntary work" and for adjustments during the implementation of the program reflecting economic developments (EEA Financial Mechanism Committee, 2019, p. 18).

Using the terminology of Salamon et al. (2011), the EEA and Norway Grants rules state that the value of volunteering will be calculated using a replacement cost valuation approach and observed proxies (and not an opportunity costs approach or societal benefits approach); focus on the inputs of volunteering (or more specifically on volunteer labor itself, apart from other inputs); and using "observed market proxies," as a valuation method (separate from "declared market proxies"). This can be considered a standard research design widely used in statistical surveys and co-financing. It also implies using specialist wages (separate from generalist wages) in which different types of volunteering are priced with different replacement values.

Both programs respect these conditions; there are several differences between them:

1. The program operator and the period of implementation

The period of implementation of the CzP was 2013 to 2017 (Fond pro nestátní neziskové organizace/CzP, 2018); the ACF (part of the EEA and Norway Grants for 2014–2021) was operated by a consortium consisting of the OSF Prague, the Goodwill Committee— Olga Havel Foundation, and the Scout Institute (ACF, 2020).

2. Financial amounts and the payment currency Both the financial indicator and subsequent payments toward the grantees were in the local currency, the

	Table 2. Czech NGO Programme—T	ypes of Volunteer Activities and Their Unit Prices (C2	ZK).
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		Price of v	olunteer labor per	hour (CZK)	
Types of volunteer activity	Median	М	Minimum	Maximum	Mode
Volunteer in preschool care	160.5	163.4	156.0	184.0	160.0
Volunteer in public relations or human resources, fundraiser	158.5	158.0	121.0	186.0	155.0
Volunteer for leisure activities and informal education	160.5	163.4	156.0	184.0	160.0
Graphic work	140.5	140.4	130.0	165.0	144.0
Volunteer coordinator	153.5	156.5	129.0	203.0	175.0
Medical help	305.0	303.1	212.0	421.0	N/A
Project management and coordination	153.5	156.9	129.0	203.0	N/A
Sales support	106.0	108.4	104.0	136.0	104.0
Help with personnel assistance (social worker)	126.5	127.9	118.0	150.0	127.0
Help with translations/interpretations	118.0	120.6	108.0	155.0	N/A
Legal services	141.5	141.0	130.0	165.0	145.0
Psychologist	163.5	154.9	126.0	184.0	167.0
Rehabilitation worker, physiotherapist	142.5	144.4	126.0	163.0	N/A
Specialized activity for environmental or social care	153.5	152.0	130.0	184.0	157.0
Field worker (for environmental activities), guide	113.0	111.6	83.0	129.0	113.0
Teachers for work with target groups	160.5	163.4	156.0	184.0	160.0
Nurse	175.0	181.0	162.0	213.0	168.0
Help with operational administrative work	118.0	120.3	108.0	155.0	112.0
Help with distributing fliers/information campaigns	92.0	92.6	74.0	107.0	90.0
Help with cleaning work/manual activities	74.0	73.9	65.0	83.0	75.0
Kitchen help	88.5	87.0	80.0	90.0	89.0
Help with financial administration	145.0	145.3	136.0	165.0	145.0
Webmaster, other activities in Information and communications technology	158.0	158.1	139.0	187.0	158.0
Health assistant	102.0	103.5	93.0	125.0	100.0
Total	142.0	142.8	65	421	165

Source. Constructed by the author based on Fond pro nestátní neziskové organizace/Czech NGO Programme (2014).

Czech koruna, for the CzP. For the ACF, amounts were in euros and the applicable exchange rates were stated in the RFP documentation.

3. Type of the replacement wage

CzP had 24 types of volunteer activities/professions with different replacement values in the 14 regions in the Czech Republic, a total of 336 volunteering price combinations. Table 1 shows all 24 types of volunteer activities. To make the data easier to read, the table presents medians, means, and minimum and maximum values for each type, calculated on the data from all 14 regions. The last row of the table shows overall values (median, mean, and minimum and maximum values) for the whole sample (all 336 unit prices).

The original price units were expressed in CZK, and they are shown in Table 2. The data show significant differences between each type of volunteer activity and in some cases significant differences between regions. For example, unit prices for volunteer medical help in the Pilsen region (421 CZK/hour) were almost double that of the Karlovy Vary region (212 CZK/hour). The ACF had only nine types of volunteer activities/professions with no regional or other differences. Therefore, there were only nine price combinations. This was a substantial difference from the CzP, lowering the number of price combinations from 336 to 9. This is significant because although the basic parameters of the EEA and Norway Grants remain the same, the type of replacement wage differs significantly.

The other difference between the two programs was that CzP offered only the names of the volunteer activities/professions, but ACF offered a relatively detailed description of each category with examples from different volunteering fields. This description was based on the research by Dostál et al. (2020), who created this methodology and developed an online and smartphone app compatible with the ACF methodology.

4. Formal requirements for volunteering to be eligible for inclusion in the co-financing

There was one significant administrative condition that changed between the two programs. The CzP had a condition for calculating the value of volunteering

Table 3. CzP, Basic Grants.

Financial parameters	EUR	CZK
Grant		
Minimum	€10,896	CZK 300,000
Maximum	€36,320	CZK 1,000,000
Total co-financing		
Minimum	€1,211	CZK 33,333
Maximum	€4,036	CZK ,
Total costs		
Minimum	€12,107	CZK 333,333
Maximum	€40,356	CZK 1,111,111
Value of volunteering in minimizing		
the financial co-financing		
Minimum	€605	CZK 16,667
Maximum	€2,018	CZK 55,556

Source. Constructed by the author based on Fond pro nestátní neziskové organizace/Czech NGO Programme (2018).

Note. CzP = Czech NGO Programme.

Table 4. ACF, Basic Grants.

Financial parameters	EUR	CZK
Grant		
Minimum	€8,000	CZK 208,135
Maximum	€85,000	CZK 2,211,392
Total co-financing		
Minimum	€889	CZK 23,126
Maximum	€9,444	CZK 245,710
Total costs		
Minimum	€8,889	CZK 231,261
Maximum	€94,444	CZK 2,457,102
Value of volunteering in minimizing		
the financial co-financing		
Minimum	€444	CZK 11,563
Maximum	€4,722	CZK 122,855

Source. Constructed by the author based on Nadace Open Society Fund & Výbor dobré vůle—Nadace Olgy Havlové/Open Society Fund Prague & The Committee of Good Will—Olga Havel Foundation (2019a). Note. ACF = Active Citizens Fund.

> into the project costs that such volunteer work must be performed under the conditions of volunteer service specified by Act 198/2002 Coll. on Volunteer Service (Parlament České republiky/Parliament of the Czech Republic, 2002). This condition no longer applied for the ACF. Therefore, the possibility of reporting in-kind volunteer contributions opened to a wider number of nonprofits.

5. Financial parameters

The other substantial difference between the two project calls is the financial side of the RFP. This difference is important because it provides a different situation for the number of volunteer hours and the value of volunteering eligible for inclusion.

Financial parameters	EUR	CZK
Grant		
Minimum	€100,000	CZK 2,601,650
Maximum	€250,000	CZK 6,504,125
Total co-financing		
Minimum	€ , 0	CZK 289,043
Maximum	€27,778	CZK 722,681
Total costs		
Minimum	€ , 00	CZK 2,890,433
Maximum	€277,778	CZK 7,226,811
Value of volunteering in minimizing		
the financial co-financing		
Minimum	€5,555	CZK 144,522
Maximum	€13,889	CZK 361,341

Source. Constructed by the author based on Fond pro nestátní neziskové organizace/Czech NGO Programme (2018), Active Citizens Fund (2019), Nadace Open Society Fund & Výbor dobré vůle—Nadace Olgy Havlové/ Open Society Fund Prague & The Committee of Good Will—Olga Havel Foundation (2019).

Note. ACF = Active Citizens Fund.

Table 6. In-Kind Volunteer Contributions.

Request for			n in-kind contribution
Program	proposals	From	То
CzP	Basic	€605	€2,018
ACF	Basic	€445	€4,722
ACF	System	€5,556	€ 3,889

Source. Constructed by the author based on Active Citizens Fund (2020). Note. CzP = Czech NGO Programme; ACF = Active Citizens Fund.

The financial parameters for basic grants in the CzP are presented in Table 3.

The RFP documentation states the minimum and maximum levels of the grant and the other parameters, usually as the percentage of something (e.g., of the total costs). The rest of the table was calculated based on this information, using formulas described in the methodology section of this article.

For the ACF, I used data for the basic grants and the system grants, which are usually bigger and therefore present more interesting combinations of volunteer work.

Table 4 shows that the ACF basic grants have a wider range of grant levels, and therefore for other indicators such as total costs, co-financing, and in-kind volunteer contributions. The methodology of the calculations was the same, with the exception of the exchange rate calculation. The CzP worked with the Czech koruna and the ACF with euros; therefore, the Czech amounts were calculated using the monthly averages and then the median of these values to get as close as possible to the RFP parameters. The averages of the Czech amounts based on the monthly exchange rates are in the Appendix. The ACF also included system grants, as shown in Table 5.

The methodology was the same. The system grants are the biggest RFP in this case study, in terms of grants.

In-Kind Volunteer Contributions Eligible for Co-Financing

This section deals with the levels of in-kind volunteering contributions for the basic grants of the CzP and the basic and system grants of the ACF. Table 6 shows the maximum level of in-kind volunteer contributions with the minimum co-financing, depending on the size of the grant.

The change of this parameter in the basic grants is given by the different parameters of minimum and maximum grants in the selected cases.

The methodology of calculating the in-kind volunteer contribution eligible for inclusion in the co-financing is the same for both programs because both happened under the EEA and Norway Grants rule. The value of volunteering must be lower than or equal to the total cost multiplied by the ratio of co-financing to total costs and the ratio of in-kind volunteer contribution (value of volunteering); this ratio is expressed from 0 to 1. If the ration of co-financing to total costs is 10% (as in this case), this ratio is 0.1. The ratio of in-kind volunteer contribution to co-financing is 50%, so 0.5.

Mathematically, this equation can be expressed as $v \leq TC^*cf_r^*v_r$, s.t. $cf_r = (0,1)$, $v_r = (0,1)$. The equation is valid for the projects with compulsory co-financing where the cofinancing level is derived directly from the total costs, and for the possible in-kind volunteering contributions where the level is derived directly from the co-financing. For this case study, the value of volunteering $v \leq TC^*0, 1^*0, 5$, s.t. $cf_r =$ $(0,1), v_r = (0,1)$. Thus, $v \leq 0.05 TC$, or expressed in a fraction: $v \leq 1/20 TC$, with the condition that applicants will apply the minimum co-financing.

CzP and in-kind volunteer contributions eligible for co-financing. For the CzP and minimum co-financing, the maximum inkind volunteer contribution included in the co-financing can be expressed by the interval $v_n(v_n^{min}, v_v^{max})$, depending on the size of the grant. The v values will be calculated based on the presented formula. The lower bound of the interval represents the situation with the minimum possible grant, and the upper bound represents the maximum possible grant. Therefore, the maximum value of volunteering in the CzP, using minimum co-financing, can be expressed by the interval v $(\in 605, \in 2,018)$. Logically, the nonprofits do not have to maximize the value of volunteering included in the co-financing. Since the value can be zero, a value of volunteering included in the project costs for the minimum grant will be v_g^{min} ($\in 0$, $\in 605$), whereas the same value for the maximum grant will be v_g^{max} (€0, €2,018).

ACF and in-kind volunteer contributions eligible for co-financing. To achieve the minimum possible grant using the minimum co-financing, the in-kind volunteer contribution included in the project proposal can be expressed as the interval v_{ab}^{min} (€0, €445). This means that the value of in-kind volunteer contributions in ACF basic grants will be lower than or equal to €445, and no in-kind volunteer contributions are also possible.

To achieve the maximum possible grant using the minimum co-financing, the in-kind volunteer contribution included in the project proposal can be expressed as the interval v_{ab}^{max} ($\in 0, \in 4,722$). This means that the value of inkind volunteer contributions in ACF basic grants will be lower than or equal to $\in 4,772$, and no in-kind volunteer contributions are also possible.

For ACF system grants and minimum co-financing, the maximum in-kind volunteer contribution included in the co-financing can be expressed by the interval v_{as} (ε 5,556, ε 13,889) depending on the size of the grant. Because non-profits do not have to maximize the value of volunteering included in the co-financing and the value can be zero, the value of volunteering included in the project costs for the minimum grant will be s_g^{min} (ε 0, ε 5,556); the same value for the maximum grant will be (ε 0, ε 13,889).

Hours Needed to Achieve the Level of In-Kind Volunteer Contributions

If the conditions of the grantor are met with supplied volunteers, volunteer labor saves money for the grantees. In some cases, it enables nonprofits to be eligible for funding.

CzP and hours needed to achieve the level of in-kind volunteer contributions. For the CzP, to minimize the co-financing and maximize the value of in-kind volunteer contributions, this value can be expressed as the interval v_n (€605, €2,018), depending on the grant level. The lower bound, €605, reflects the minimum grant; the upper bound, €2,018, reflects the maximum grant.

There are many ways to achieve this value in terms of the type of volunteering. Table 7 presents the number of hours needed to achieve the necessary value through volunteer labor. There were different replacement values for 14 different regions; descriptive statistics are calculated for each volunteering type and total.

Further calculations used the medians for each volunteering type. A complete matrix where the differences between regions are more visible is in the Appendices.

The lower bound of the interval of volunteer hours needed to maximize the grant and minimize the co-financing will be from 54 to 221 hr, depending on the type of volunteering. Table 8 presents the number of hours necessary to achieve this value through volunteer labor.

Table 7. Czech NGO Prog	ramme. Basic Grants.	Number of Hours	Needed, Minimum Grar	٦t.
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	Number of hours						
Types of volunteer activity	Median	М	Minimum	Maximum	Mode		
Volunteer in preschool care	102	100	89	105	102		
Volunteer in public relations or human resources, fundraiser	103	104	88	135	105		
Volunteer for leisure activities and informal education	102	100	89	105	102		
Graphic work	116	117	99	126	113		
Volunteer coordinator	106	106	80	127	93		
Medical help	54	56	39	77	N/A		
Project management and coordination	106	106	80	127	N/A		
Sales support	154	151	120	157	157		
Helping with personal assistance (social worker)	129	128	109	138	129		
Helping with translations/interpretations	138	137	105	151	N/A		
Legal services	115	116	99	126	113		
Psychologist	100	107	89	130	98		
Rehabilitation worker, physiotherapist	115	114	100	130	N/A		
Specialized activity for environmental or social care	106	108	89	126	104		
Field worker (for environmental activities), guide	145	148	127	197	145		
Teachers for working with target groups	102	100	89	105	102		
Nurse	93	91	77	101	97		
Helping with operational, administrative work	138	137	105	151	146		
Helping with distributing fliers/information campaigns	178	177	153	221	181		
Helping with cleaning work/manual activities	221	222	197	251	218		
Kitchen help	185	188	181	204	184		
Helping with financial administration	113	113	99	120	113		
Webmaster, other activities in Information and communications technology	103	104	87	118	103		
Health assistant	159	154	100	176	163		
Total	115	124	39	251	99		

Source. Constructed by the author based on Fond pro nestátní neziskové organizace/Czech NGO Programme (2014, 2018).

The upper bound of the interval is from 179 to 736 volunteer hours, depending on the type of volunteering. The number of hours needed for the in-kind value of volunteer contribution v_n (€605, €2,018), depending on the size of the grant, is the highest for volunteering in helping with cleaning work/manual activities, h_n (221, 736), and the lowest for medical volunteers, h_n (54, 179). In other words, for in-kind volunteer contributions of €605, it will be necessary to report 221 hr of volunteering help in cleaning work/manual activities, but only 54 hr of volunteer medical help. For an in-kind volunteer contribution of $\in 2,018$, it will be necessary to report 736 volunteer hours in helping with cleaning work/ manual activities, but only 179 hr of volunteer medical help (median value calculated for all regions). These two types of volunteering activity represent the most and least qualified types.

ACF and the hours needed to achieve the level of in-kind volunteer contributions. For the ACF, to minimize the co-financing and maximize the value of in-kind volunteer contributions, this value can be expressed as the interval v_{ab} (\in 445, \in 4722), depending on the grant level. The lower bound, €445, reflects the minimum grant; the upper bound, €4,722, reflects the maximum grant. There are many ways to achieve this value in terms of the type of volunteering. For a total in-kind volunteer contribution value of €445, volunteering in management would require 40 hr; unqualified volunteering would require 109 hr. Because the ACF methodology considers monthly average exchange rates, these values are median. The hours would range from 38 to 42 for volunteering in management and from 105 to 114 for unqualified volunteer work. Unqualified volunteer work requires almost 3 times more hours than volunteering in management. The values are shown in Table 9.

The ACF does not have different values for different regions. However, median, minimum, and maximum values are still calculated. Those statistics reflect the differences in the monthly exchange rates, because the ACF has financial grant parameters in euros, but volunteer replacement values in Czech. The median, minimum, and maximum values reflect this situation, as each monthly average exchange rate (EUR/CZK) has slightly different values,

Table 8. CzP, Basic Grants, Number of Hours Needed, Maximum Grant.

			Number of hour	rs	
Types of volunteer activity	Median	М	Minimum	Maximum	Mode
Volunteer in preschool care	339	334	296	349	340
Volunteer in public relations or human resources, fundraiser	343	347	293	450	351
Volunteer for leisure activities and informal education	339	334	296	349	340
Graphic work	388	389	330	419	378
Volunteer coordinator	355	354	268	422	311
Medical help	179	186	129	257	N/A
Project management and coordination	355	353	268	422	N/A
Sales support	514	504	400	524	524
Helping with personal assistance (social worker)	430	428	363	461	429
Helping with translations/interpretations	461	455	351	504	N/A
Legal services	385	387	330	419	375
Psychologist	333	356	296	432	326
Rehabilitation worker, physiotherapist	382	380	334	432	N/A
Specialized activity for environmental or social care	355	362	296	419	347
Field worker (for environmental activities), guide	482	493	422	656	482
Teachers for working with target groups	339	334	296	349	340
Nurse	311	303	256	336	324
Helping with operational, administrative work	461	456	351	504	486
Helping with distributing fliers/information campaigns	592	591	509	736	605
Helping with cleaning work/manual activities	736	739	656	838	726
Kitchen help	615	627	605	681	612
Helping with financial administration	375	375	330	400	375
Webmaster, other activities in Information and communications technology	345	346	291	392	345
Health assistant	529	501	145	585	544
Total	382	414	129	838	330

Source. Constructed by the author based on Fond pro nestátní neziskové organizace/Czech NGO Programme (2014, 2018). Note. CzP = Czech NGO Programme.

Table 9. A	ACF, Basic	Grants,	Number	of Hours	Needed,	Minimum	Grant.
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Type of volunteering	Median	Minimum	Maximum	Difference
I. Volunteers in management	40	38	42	(4)
2. Volunteer specialist	46	44	48	(4)
3. Volunteer with lesser specialization	61	59	64	(5)
4. Volunteer artists and artisans	73	71	77	(6)
5. Volunteers operating larger equipment	75	72	78	(6)
6. Volunteers in administration	80	77	84	(7)
7. Volunteer gardeners, growers, and breeders	93	89	97	(8)
8. Volunteers in services and charitable sales	105	101	110	(9)
9. Unqualified volunteering	109	105	114	(9)
	75	38	114	(76)

Source. Constructed by the Author (2020).

Note. ACF = Active Citizens Fund.

and therefore, the monthly results for volunteer hours necessary to achieve a particular value of in-kind volunteer contributions vary. The lower bound of the interval of volunteer hours needed to maximize the grant and minimize the co-financing will be from 40 to 109 hr, depending on the type of volunteering.

Type of volunteering	Median	Minimum	Maximum	Difference
Volunteers in management	418	402	438	(36)
Volunteer specialist	485	467	508	(41)
Volunteer with lesser specialization	643	619	67	552
Volunteer artists and artisans	774	745	811	(66)
Volunteers operating larger equipment	788	758	826	(68)
Volunteers in administration	847	816	888	(72)
Volunteer gardeners, growers, and breeders	982	945	1,029	(84)
Volunteers in services and charitable sales	1,107	1,066	1,160	(94)
Unqualified volunteering	1,150	1,107	1,205	(98)
Total	804	402	1,025	(623)

Table 10. ACF, Basic Grants, Number of Hours Needed, Maximum Grant.

Source. Constructed by the Author (2020).

Note. ACF = Active Citizens Fund.

Table 10 illustrates the number of volunteer hours necessary to achieve €4,722.

The upper bound of the interval is from 418 to 1,150 volunteer hours, depending on the type of volunteering. The number of hours needed for the in-kind value of volunteer contribution v_{ab} (€445, €4,722), depending on the size of the grant, is the highest for unqualified volunteering, h_{ab} (109, 1150), and the lowest for volunteers in management, h_{ab} (40, 418). In other words, for in-kind volunteering contributions of €445, it will be necessary to report 109 volunteer hours of unqualified work, but only 40 hr of volunteers in management. For in-kind volunteer contributions of €4,722, it will be necessary to report 1,150 hr of unqualified volunteers, but only 418 hr of volunteers in management. These two types of volunteering activity represent the most and least qualified types.

Discussion

In-Kind Volunteer Contribution Eligible for Co-Financing

As the "Results" section shows, the value of in-kind volunteer contributions will be lower than or equal to the product of the total cost times the co-financing rate times the in-kind volunteer contribution rate relative to the co-financing. Mathematically, $v \leq TC^* cf_r^* v_r$, s.t. $cf_r = (0,1)$, $v_r = (0,1)$. This relationship can be considered universal for the RFP that require compulsory co-financing of the grantees; have co-financing rates derived from total costs; and have a rate of in-kind volunteering contributions derived from the cofinancing (financial and in-kind).

The values of in-kind volunteer contributions in which a grantee minimizes co-financing and maximizes in-kind volunteer contributions can also be described as the interval $v_i(v_i^{min}, v_i^{max})$, where v is the value of in-kind volunteering contribution and i stands for the type of program.

Calculating the value of volunteering into the project cost and compulsory co-financing might be a governmental (or private grantor) tool with which to support and motivate nonprofits using volunteering in providing public services in their efforts by introducing the possibility of decreasing the financial co-financing/grant ratio and minimum level of financial co-financing, and to express the subjectively perceived value of volunteering, including revealing specific value characteristics, even though such a value might be regulated by the government. In fact, as Bussell and Forbes (2002, p. 3) wrote, regarding volunteering in the United Kingdom, "Recognizing the value of volunteer time and the benefits to individuals of volunteering, the Government has led a number of initiatives to increase the level of volunteering." Enabling grantors to reveal their perspective on the value of volunteering might be one means of achieving that.

However, this effect depends on several features of the grant program, such as if the effect of calculating the value of volunteering into the project cost has realistic positive consequences for nonprofits or if it is just possible due to the legal framework. Formal requirements and organizational settings might actually diminish the usefulness of enabling the inclusion of the value of volunteering.

Can Financial Amounts of In-Kind Volunteer Contributions be Considered as Savings?

For projects requiring co-financing at a level of at least of 10% of total costs, enabling the inclusion of in-kind volunteer contributions up to 50% of the co-financing means that the maximum value of volunteering can represent 1/20 of total costs. Under these conditions, 1/20 of total costs represents the maximum financial savings due to including the value of volunteering as in-kind volunteer contributions to the project. The conditions under which it can be considered as a saving are when (a) there is a minimum level of cofinancing to be eligible for a grant, (b) part of the co-financing can be covered by the value of volunteering (as an in-kind contribution), (c) the co-financing does not need to be paid in money to achieve a project goal, (d) the nonprofit applies for the grant with minimum co-financing (and this co-financing is larger than o), and (e) the volunteering does not require any additional financial costs.

The word "savings" was used in the study by Lusková and Lusková (2012) in the context of the value of volunteering in the social services in the Czech Republic. As Dostál et al. (2020) noted, this usage of the term was a little problematic because it referred to the value of volunteer time, not the final output or the value of in-kind volunteering contributions in the project. Bowman (2009) concluded that volunteering is a complement rather than a substitute for paid work. If a volunteer quits, the organization will most likely try to find another volunteer, not a paid worker. The meaning of the term "savings" in this research is different. It does not refer to the value of time the nonprofit would pay to a worker in the absence of a volunteer. It refers to the accounting problem that occurs if a certain amount of compulsory co-financing is covered by the value of volunteering contribution instead of money; such volunteer value can be seen as savings.

Such savings might be crucial for some nonprofits to be eligible to apply for funding. In other words, a nonprofit can have the know-how and even some financial resources for co-financing to fulfill the mission of the grantor, but it may still be ineligible if they do not have the available amount of financial money for co-financing. EEA and Norway Grants enable nonprofits to cover half of their co-financing with the value of volunteering, even though several combinations of different types of volunteer activity performed in different scales may be involved in achieving this. This is logical, as each project might have a specific distribution of labor among paid and volunteer labor, and not all nonprofits have the same personnel capacities for paid work or for volunteer coordination. The financial savings of nonprofits through the possibility of including the value of volunteering in the project costs might have two positive effects. First, it could save a certain amount of money that is not necessary for completing the project and that might have been included just because of the RFP condition. Second, a nonprofit may become eligible to apply for funding, and if successful, do more work to achieve the mission of the organization and of the grantor. This conclusion, however, stands on the presumption that fulfilling the mission of the nonprofit and the grantor is desirable for society and that the resources are spent effectively.

Hours Needed to Achieve the Level of In-Kind Volunteer Contributions

Using the specialist wage method means that different types of volunteering activities (as defined in the RFP) have different values. Therefore, different numbers of volunteer hours can result in the same in-kind volunteering contribution. This is in accordance with the ILO (2011) recommendation and the approach by Salamon et al. (2011), representing a mainstream view of contemporary volunteering valuation. The argument for this approach is that it reflects the type of the volunteering activity, similarly to how the value of paid work reflects (among many other factors) the type of the job.

The question of different types of volunteering bringing different values of volunteering under the specialist wage is analogical to the problem of different replacement generalist or specialist wages bringing different values. In the cases described in this article, different types of volunteering are linked with different replacement wages. To compare other methods, the same numbers of volunteer hours can produce substantially different results. This was noted by Brown (1999), Bowman (2009), Dostál and Vyskočil (2014), and Rybáček et al. (2017). The availability of widely inconsistent results was criticized by the ILO (2011), which recommended using the ILO specialist wage method.

Limits of the Research and the Significance of the Research

It is important to understand the outcomes of quantifying the value of volunteering in the context of the research design and data limitation, and a similar need for understanding applies to this research. Even though the principles used to calculate the value of volunteering in project costs are universal, specific aspects could limit the informative value of this article and its applicability. Probably the most limiting aspect of this research is that calculating the value of volunteering into the project costs can be regulated or even forbidden by law. The law can state how the value will be calculated and the use of specialist wages might not be possible. In such cases, the informative value of the revealed value of volunteering from the perspective of the grantor will be limited. There are no public data available about the actual value of volunteering reported by nonprofits in the CzP and the ACF. The reaction of nonprofits to the methodology of calculating the value of in-kind volunteer contributions is therefore unknown. This could be a topic for further research. There is an assumption that including the value of in-kind volunteer contributions would be more common with the ACF because of the administrative conditions in the CzP of accreditation from the Ministry of Interior. This limitation was abandoned in the ACF in connection with the limitation of focusing strictly on the grant parameters. Whether it will affect the real financial management of nonprofits depends on their activities, available volunteers, RFP competitors, and other factors.

However, the mathematical relations can be, together with their conditions, considered universal. The examples of the CzP and ACF bring real numbers to these relations. The grantor could use this research to formulate or reformulate their granting policy to achieve their goals more accurately. The grantees can see in the research that including the value of in-kind volunteer contributions in the project cost can have a real financial benefit to their organization. This research can also be an argument for the government to clarify the legislation about including the value of in-kind contributions in the accounting record. As Dostál et al. (2020) wrote, in the Czech Republic, the country of these case studies, the legislation on this matter is not very clear and it might be a reason that some nonprofits are reluctant. The problems of including volunteering in the financial records have been discussed by many scholars, for example, Mook et al. (2007) and the ILO (2011). This research also fills a part of the research gap concerning the value of volunteering for grants. Hopefully, this research will encourage future research in this direction. This might be especially necessary due to the current COVID-19 crisis. Early results (e.g., Kim & Mason, 2020; Maher et al., 2020; Mumford & Greene, 2020) indicate that at least some nonprofits have been economically affected by the situation. Among the most obvious reasons is the anti-epidemic limitations on large fundraising and charitable events and other forms of direct fundraising or charitable sales. One way governments can help them is via RFP, which can include the possibility of in-kind volunteer contributions. This article can be another argument and tool for taking this possibility into consideration.

Conclusion

The value of volunteering has become a policy tool that a grantor can use to reward nonprofits using voluntary labor by including it in compulsory co-financing in a public RFP. Due to the limited financial resources in economics, the motivation of nonprofits to use voluntary labor in publicly funded grants can bring additional labor resources to public policies. EEA and Norway Grants reduce economic and social disparities and strengthen relations with 15 EU countries. The countries each have a program operator responsible for setting the outputs of the program and obeying the regulations of EEA and Norway Grants.

The first part of the "Results" section introduced both programs and presented their differences and similarities. The most relevant difference for this research is the substantial change in the methodology of calculating the value of volunteering. It is still a replacement specialist wage, but the methodology is much easier in one project. Therefore, we have an interesting comparison of the two projects with a different value of volunteering calculation methodologies for the same EEA and Norway Grants. The second part of the results defines the relationship between the value of volunteering and the other grant parameters. It also presents a number of in-kind volunteering contributions the grantees can include in their applications. The value of volunteering in both cases can be up to the 1/20 of the total costs, with the condition that the applicant minimizes the financial contributions to co-financing. The third part of the "Results" section presents the relationship between the number of volunteer hours necessary to achieve such values and the type of volunteering. Some types of volunteering activity, usually the highly demanding ones, allow relatively fewer hours. The less demanding types of volunteering require more volunteer hours. The "Discussion" section considers including the value of in-kind volunteer contribution in the context of practical usage. It also discusses the in-kind volunteer contribution as savings and defines the conditions under which the value of volunteering can be considered as saving.

The article focused on the Czech distribution of EEA Grants, more specifically the CzP that allocated funds between 2009 and 2014 and the ACF that allocated funds between 2014 and 2021. The examples of the CzP and the ACF illustrate in real numbers the formulation of the prices of volunteer hours. There are two basic ways to influence the contribution of the value of volunteering in the cofinancing. The first is through the number of volunteer hours, which may be limited by the supply of volunteer labor in the region; the second is by the choice of the method of valuation. The former can be influenced by nonprofits, the latter only by the grantor or governmental authority. However, both ways can change the necessary number of volunteer hours to achieve the same financial support in terms of tens or even hundreds of additional volunteer hours. The lack of additional available volunteer labor may lead to a nonprofit's failure to meet the eligibility criteria, although it might otherwise be qualified to take part in the public policy implementation. Further research is needed in terms of the impact of the eligibility criterion on the production of nonprofits and the meeting of public policies.

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Appendix I

					Ā	Price of volunteer labor per hour (CZK)	unteer lab	or per ho	ur (CZK)					
Type of volunteering	PR	SB	SM	K۷	КН	LB	MS	OL	PA	Ы	CB	٦N	Y	ZL
Volunteer in preschool care	184	161	160	165	163	176	158	165	160	156	158	165	160	156
Volunteer in public relations or human	186	165	161	155	155	150	162	161	155	170	159	158	121	154
Volumentes, tartal alser	101	171	071	145	C71	721	ΙĽΟ	145	140	IEZ	100	145	140	IEZ
	101	0		6	6	0/1								
Graphic work	165	4	138	130	136	131	44	145	140	44	144	133	133	4
Volunteer coordinator	203	175	158	I 46	134	152	151	132	129	131	155	165	175	185
Medical help	322	239	283	212	327	255	313	383	304	421	344	295	306	240
Project management/coordination	203	175	158	I 46	135	152	151	133	129	132	155	165	177	185
Sales support	136	901	104	104	112	901	104	107	104	104	113	107	104	107
Help with personnel assistance	150	132	126	127	128	129	127	125	611	144	125	120	811	120
Help with translations	155	123	121	113	124	117	112	131	611	116	125	115	108	601
Legal services	165	142	139	130	137	132	145	145	4	145	144	133	134	142
Psychologist	184	143	167	140	141	126	145	162	129	168	165	167	166	165
Rehabilitation, physiotherapist	143	159	130	157	163	126	132	142	152	161	129	139	149	140
Specialized act. (environmental or social)	184	145	157	152	161	131	163	157	139	172	4	4	155	130
Field worker, guide	129	Ξ	101	104	113	105	112	117	117	127	115	115	83	113
Teachers	184	161	160	165	163	176	158	165	160	I 56	158	165	160	156
Nurse	198	168	179	203	194	170	175	196	162	213	175	163	170	168
Help with administrative work	155	123	121	112	124	117	112	130	611	115	125	115	108	108
Help with distributing fliers	66	89	94	74	90	94	90	89	95	90	001	107	90	96
Manual activities	77	73	83	65	75	74	74	75	75	74	75	74	71	69
Kitchen help	80	89	86	90	89	89	85	87	88	89	89	60	84	83
Help with financial administration	165	145	144	145	147	144	145	140	143	150	146	145	136	139
Webmaster, other activities in Information	187	157	154	158	160	158	162	157	158	158	161	139	I 58	147
and communications technology														
Health assistant	117	001	103	106	104	103	001	101	108	125	001	93	93	96

Source. Constructed by the author based on Fond pro nestátní neziskové organizace/Czech NGO Programme (2014).

No.	Abbreviation	Full name in English	Full name in Czech (official)
Ι.	PR	Prague	Praha
2.	SB	South Bohemian Region	Jihočeský kraj
3.	SM	South Moravian Region	Jihomoravský kraj
1.	KV	Karlovy Vary Region	Karlovarský kraj
5.	НК	Hradec Králové Region	Královehradecký kraj
	LB	Liberec Region	Liberecký kraj
7.	MS	Moravian-Silesian Region	Moravskoslezský kraj
8.	OL	Olomouc Region	Olomoucký kraj
	PA	Pardubice Region	Pardubický kraj
0.	PI	Pilsen Region	Plzeňský kraj
Ι.	СВ	Central Bohemian Region	Středočeský kraj
2.	UL	Ústí nad Labem Region	Ústecký kraj
3.	VY	Vysočina (Highlands) Region	Kraj Vysočina
4.	ZL	Zlín Region	Zlínský kraj

Appendix 2

Source. Constructed by the author based on Asociace krajů České Republiky/Association of regions of the Czech Republic (2019).

Appendix 3

	Replacement wage		
Type of volunteering	СZК	EUR	
Volunteers in management	CZK 294.54	€11.32	
Volunteer specialist	CZK 253.83	€9.76	
Volunteer with lesser specialization	CZK 191.31	€7.35	
Volunteer artists and artisans	CZK 145.12	€5.58	
Volunteers operating larger equipment	CZK 111.01	€4.27	
Volunteers in administration	CZK 125.22	€4.81	
Volunteer gardeners, growers, and breeders	CZK 158.90	€6.	
Volunteers in services and charitable sales	CZK 156.06	€6.00	
Unqualified volunteering	CZK 106.75	€4.10	
Median in the economy	CZK 161.91	€6.22	

Source. Constructed by the author based on Active Citizens Fund (2019).

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References

Active Citizens Fund. (2019). Dobrovolnická práce- třídy a sazby pro žadatele o grant z programu Active Citizens Fund /Volunteer work - classes and rates for grant applicants in the Active Citizens Fund. https://mgwdata.net/norwayfunds/prod/ uploads/2019/09/Dobrovolnicka%CC%81-pra%CC%81ce-tr%CC%8Ci%CC%81dy-a-sazby-1.pdf

- Active Citizens Fund. (2020). *About active citizens fund*. https:// www.activecitizensfund.cz/en/active-citizens-fund/aboutactive-citizens-fund/
- Anheier, K. A., Hollerweger, E., Badelt, C., & Kendall, J. (2003). Work in the non-profit sector. International Labour Office.
- Asociace krajů České Republiky/Association of regions of the Czech Republic. (2019, July 2). *Kraje ČR* [Regions of the Czech Republic]. http://www.asociacekraju.cz/kraje-cr/
- Bovaird, T., & Loeffler, E. (2012). From engagement to co-production: The contribution of users and communities to outcomes and public value. *VOLUNTAS*, 23(2), 1119–1138. https://doi. org/10.1007/s11266-012-9309-6
- Bowman, W. (2009). The economic value of volunteers to nonprofit organizations. *Nonprofit Management & Leadership*, 19(4), 491–506. https://doi.org/10.1002/nml.233

- Brown, E. (1999). Assessing the value of volunteer activity. Nonprofit and Voluntary Sector Quarterly, 28(1), 3–17. https:// doi.org/10.1177/0899764099281001
- Brudney, J. L., & Meijs, L. C. P. M. (2009). It ain't natural: Toward a new (natural) resource conceptualization for volunteer management. *Nonprofit and Voluntary Sector Quarterly*, 38(4), 564–581. https://doi.org/10.1177/0899764009333828
- Bussell, H., & Forbes, D. (2002). Understanding the volunteer market: The what, where, who and why of volunteering. *International Journal of Nonprofit and Voluntary Sector Marketing*, 7(3), 244–257. https://doi.org/10.1002/nvsm.183
- Dhingra, S., & Sampson, T. (2016). *Life after BREXIT: What are the UK's options outside the European Union?* Centre for Economic Performance, London School of Economics and Political Science. https://cep.lse.ac.uk/pubs/download/ brexit01.pdf
- Dostál, J. (2020). Revealed value of volunteering: A volunteer centre network. Annals of Public and Cooperative Economics, 91(2), 319–345. https://doi.org/10.1111/apce.12271
- Dostál, J., Tošner, J., Černá, M., Činčalová, S., Závodný Pospíšil, J., Steinbauerová, R., Smrčka, F., & Musil, M. (2020). Ekonomická hodnota dobrovolnictví v teorii a praxis: Souhrnná výzkumná zpráva projektu Česko s dobrovolnictvím počítá [The economic value of volunteering in theory and practice: A summary research report of the project Czechia counts on volunteering]. Program Éta, Vysoká škola polytechnická Jihlava/ Éta Programme, College of Polytechnics Jihlava. https://www. dobrometr.cz/zprava.pdf
- Dostál, J., & Vyskočil, M. (2014, September 10–11). Intervals: Addressing misleading methods of measuring the economic value of volunteering [Conference session]. Voluntary Sector and Volunteering Research Conference—New Researcher's Session 2014, Sheffield, United Kingdom. https://www.scribd. com/document/241056892/New-Researchers-Session-Dostaland-Vyskocil
- EEA Financial Mechanism Committee. (2019). Regulation on the implementation of the EEA and Norwegian Financial Mechanisms 2009-14. Annex 9—Programme operators' manual. https://eeagrants.org/sites/default/files/resources/Annex% 2B9%2B-%2BProgramme%2BOperators%27%2BManual%2 Bclean.pdf
- Flanagan, T., & Sadowski, P. (2011). Volonteurope reviews: The value of volunteering. Volonteurope. http://www.worcestershirevoices.org.uk/uploads/documents/Volunteering%20 Reference%20Papers/12%20-%20Volonteurope-Reviews-the-Value-of-Volunteering.pdf
- Fond pro nestátní neziskové organizace/Czech NGO Programme. (2014). Tabulka ocenění dobrovolnické práce [Table for valuation of volunteer work]. https://www.fondnno.cz/res/ data/004/003840.pdf
- Fond pro nestátní neziskové organizace/Czech NGO Programme. (2018). NGO fund. https://www.fondnno.cz/en/about-czechngo-fund/
- Haldane, A. G. (2014, September 9). In giving, how much do we receive? The social value of volunteering [Conference session]. A Pro Bono Economics lecture to the Society of Business Economists, London, United Kingdom. https:// www.bankofengland.co.uk/-/media/boe/files/speech/2014/ in-giving-how-much-do-we-receive-the-social-value-of-volunteering

- Handy, F., & Brudney, J. L. (2007). When to use volunteer labor resources? An organizational analysis for nonprofit management. *Vrijwillige Inzet Onderzocht*, 4, 91–100.
- Handy, F., & Mook, L. (2011). Volunteering and volunteers: Benefit-cost analyses. *Research on Social Work Practice*, 21(4), 412–420. https://doi.org/10.1177/1049731510386625
- Herzer, D., & Nunnenkamp, P. (2013). Private donations, government grants, commercial activities, and fundraising: Cointegration and causality for NGOs in international development cooperation. *World Development*, 46, 234–251. https:// doi.org/10.1016/j.worlddev.2013.02.010
- International Labour Office. (2011). Manual on the measurement of volunteer work. Department of Statistics, International Labour Office. https://www.ilo.org/wcmsp5/groups/public/ dgreports/—stat/documents/publication/wcms 162119.pdf
- Ironmonger, D. S. (2000). Measuring volunteering in economic terms: 2,200 million hours worth \$42 billion a year. In J. Warburton & M. Oppenheimer (Eds.), *Volunteers and volunteering* (pp. 56–72). Federation Press.
- Ironmonger, D. S., & Soupourmas, F. (2009). Estimating household production outputs with time use episode data. *International Journal of Time Use Research*, 6(2), 240–268. https://dx.doi. org/10.13085/eIJTUR.6.2.240-268
- Kim, M., & Mason, D. P. (2020). Are you ready: Financial management, operating reserves, and the immediate impact of COVID-19 on nonprofits. *Nonprofit and Voluntary Sector Quarterly*, 49(6), 1191–1209. https://doi.org/10.1177/0899764020964584
- Levy, J. S. (2008). Case studies: Types, designs, and logics of inference. Conflict Management and Peace Science, 25(1), 1–18. https://doi.org/10.1080/07388940701860318
- Lu, J. (2015). Which nonprofit gets more government funding? Nonprofits' organizational attributes and their receipts of government funding. *Nonprofit Management & Leadership*, 25(3), 297–312. https://doi.org/10.1002/nml.21124
- Lusková, D., & Lusková, Š. (2012). Dobrovolnictví v sociálních službách [Volunteering in social services]. Ministerství práce a sociálních věcí/Ministry of Labour and Social Affairs. https:// www.mpsv.cz/documents/20142/225517/Zprava_2012.pdf/ fc9a448f-e2c6-02ab-4229-a796b8796695
- Maher, C. S., Hoang, T., & Hindery, A. (2020). Fiscal responses to COVID-19: Evidence from local governments and nonprofits. *Public Administration Review*, 80(4), 644–650. https://doi. org/10.1111/puar.13238
- Mayer, J. M. L. P., & Costa e Silva, S. (2017). Exploring the whole value of corporate volunteering. *The Journal of Corporate Citizenship*, 67, 95–119.
- Mayer, P. (2003). The wider economic value of social capital and volunteering in South Australia. Office for Volunteers, Government of South Australia. http://www.volunteerspirit. org/files/mayer report.pdf
- Mook, L., Handy, F., Ginieniewicz, J., & Quarter, J. (2007). The value of volunteering for a nonprofit membership association: The case of ARNOVA. *Nonprofit and Voluntary Sector Quarterly*, 36(3), 504–520. https://doi.org/10.1177/0899764007300388
- Mumford, S. W., & Greene, K. C. (2020). The state of nonprofits in Southeast Louisiana: The impact of COVID-19. Greater New Orleans Foundation. https://mcusercontent.com/ b9ac2db6f6830d1956e4b4613/files/ef05b79c-93d2-4e65-90a0-911ab7be5bc3/2020_06_07_GNOF_UNO_State_of_ Nonprofits_in_SE_Louisiana_The_Impact_of_COVID_19.pdf

- Nadace Open Society Fund & Výbor dobré vůle—Nadace Olgy Havlové/Open Society Fund Prague & The Committee of Good Will—Olga Havel Foundation. (2019a). Výzva k předkládání žádostí o grant zaměřených na Občanskou participaci, Advokační a watchdogové aktivity, Zmocnění znevýhodněných skupin, Občanské vzdělávání a mediální gramotnost a Posílení neziskových organizací. Active Citizens Fund. https://mgwdata.net/norwayfunds/prod/uploads/2019/10/Active-Citizen-Fund_zakladni-grant.pdf
- Nadace Open Society Fund & Výbor dobré vůle—Nadace Olgy Havlové/Open Society Fund Prague & The Committee of Good Will—Olga Havel Foundation. (2019b). Výzva k předkládání žádostí o grant zaměřených na Advokační a watchdogové aktivity, Zmocnění znevýhodněných skupin a Občanské vzdělávání a mediální gramotnost. Active Citizens Fund. https://mgwdata.net/norwayfunds/prod/uploads/2020/04/Active-Citizen-Fund -Systemov%C3%A9-granty.pdf
- Orlowski, J., & Wicker, P. (2016). The monetary value of voluntary coaching: An output-based approach. *International Journal of Sport Finance*, 11(4), 310–326.
- Parlament České republiky/Parliament of the Czech Republic. (2002). Act on volunteer service (Act 198/2002 Coll. of

April 24, 2002). https://www.mvcr.cz/soubor/zakon-ds-angl-doc.aspx

- Rochester, C., Paine, A. E., Howlett, S., & Zimmeck, M. (2010). Volunteering and society in the 21st century. Palgrave Macmillan. https://doi.org/10.1057/9780230279438
- Roy, K., & Ziemek, S. (2000, August). On the economics of volunteering (ZEF Discussion Papers on Development Policy, Working Paper No. 31). Center for Development Research (ZEF), University of Bonn. https://www.econstor.eu/bitstream /10419/84747/1/zef_dp31.pdf
- Rybáček, V., Fořtová, J., & Skaláková, Š. (2017). Valuation of volunteer work in satellite account of non-profit institutions. *Statistika*, 97(4), 16–24. http://dx.doi.org/10.2139/ssrn.3092686
- Salamon, L. M., Sokolowski, S. W., & Haddock, M. A. (2011). Measuring the economic value of volunteer work globally: Concepts, estimates, and a roadmap to the future. *Annals of Public and Cooperative Economics*, 82(3), 217–252. https:// doi.org/10.1111/j.1467-8292.2011.00437.x
- Smith, S. R. (2005). Managing the challenges of government contracts. In R. D. Herman & Associates (Eds.), *The Jossey-Bass handbook of nonprofit leadership and management* (2nd ed., pp. 371–390). John Wiley.