Nonprofit and Voluntary Sector Quarterly OnlineFirst, published on July 26, 2010 as doi:10.1177/0899764010371233

Nonprofit and Voluntary Sector Quarterly
XX(X) 1–23

DOI: 10.1177/0899764010371233
http://nvsq.sagepub.com

The Economic Value of Volunteer Work: Methodological Analysis and Application to Spain

Antonia Sajardo[1] and Inmaculada Serra[1]

Abstract

Despite the socioeconomic interest that is associated with volunteer work, the practice of valuing it is limited, and few scientific advances have been made. In this context, this study first analyses why these advances are scarce, paying special attention to the limitations of micro- and macro-accounting systems, including volunteer work accounts. It then proposes a method with heuristic capacity for valuing the various economic dimensions of volunteer work. The third part of this article applies this proposal to social and environmental volunteer work in the Spanish region of Valencia. The conclusions bring to focus the fact that whereas the technical obstacles faced in conducting empirical analysis are not insurmountable, obstacles of a sociopolitical nature and of scientific mindsets continue to hinder the advance of research in this field of the social sciences.

Keywords

volunteer work, economic valuation, assessment, social accounts, social accountability, scientific advances, social and environmental volunteering

In a world that is undergoing profound and accelerated change, when volunteers[1] accept to do unpaid work, which is performed free of cost in order to benefit the community, they are contributing to the coordination and development of more cohesive, tolerant, and democratic societies; to reproducing and consolidating the values of solidarity and public benefit; and to promoting sustainable development in its three dimensions—social, economic, and environmental—in both developed and developing countries.

[1]University of Valencia, Valencia, Spain

Corresponding Author:
Antonia Sajardo, Faculty of Law, University of Valencia, Avda. de los Naranjos, s/n, 46022, Valencia, Spain
E-mail: antonia.sajardo@uv.es

The social usefulness of volunteers has been recognized by international institutions such as the United Nations and the European Union[2] and has also aroused interest among researchers. The voluntary sector, and more generally the whole area “between the public sector economy and the capitalist economy”, has nourished an extensive literature in the social sciences, with seminal works such as those of Perroux (1963), Phelps (1975), Weisbrod (1977), Hansmann (1980), and Powell (1987). More recently, research has mainly focused on examining the relationships between the voluntary sector and other institutional sectors, namely, the public sector and the for-profit private sector, particularly from the perspective of restructuring the Welfare State (Kramer, 1992; Kuhnle & Selle, 1990; Sajardo & Chaves, 1997).

Being an emerging and expanding subject of study, volunteer work has given rise to many different neonotions and bodies of theory. Different names for it coexist at present, the main ones being voluntary sector, third sector, nonprofit sector, solidarity economy, and social economy (Sajardo, 1996, 1998, 2009; Sajardo & Chaves, 2006). They are reflected in the number of international scientific associations competing in this field, the principal ones being CIRIEC-International, ISTR, ARNOVA, and the Latin American RILESS. This plurality is explained, on the one hand, by the different methodological perspectives that characterize a multidisciplinary approach (mainly sociology, law, politics, and economics) to a common subject of study and, on the other, by the components of the social reality to which the researchers are paying attention (Ángel, 1978). This panorama is a typical example of a scientific field that is located at the transition between prescience and normal science, in Kuhn’s terms (Kuhn, 1970/1984), and includes an ingredient from the social sciences: that both the choice of elements selected to study this reality and the theoretical constructs derived from it have been imbued with different types of value judgments (Hutchison, 1985; Myrdal, 1970).

Despite its social interest, significant advances in the scientific analysis of volunteering still need to be made, particularly as regards establishing quantitative indicators and valuing the net contributions of volunteer work to the welfare of nations. The interest of this line of study, of which the present article is a part, is that it can make a decisive contribution to improving the social visibility of social and environmental volunteer work by perfecting existing macro- and micro-economic accounting systems, improving the information transparency of these organizations, identifying substantive global developments and problems in this sector, assessing the efficiency of voluntary organizations and the role that volunteers play within them, and, finally, improving public policies that involve these organizations (Cnaan, R. A., Handy, F., & Wadsworth, M., 1996).

It should be noted that it was only recently that the first aggregate measurements were made and methods were developed to assess the value of volunteer work from micro- and macro-economic perspectives. Indeed, the National Accounts (the system of accounts that calculate the major economic aggregates and flows of a country) have not yet included volunteer work in gross domestic product (GDP), any more than they have for other economically significant spheres such as the environment or domestic work (Carrasco, 1999; Durán, 2006; *Economiaz*, 1997; Figueroa & Castilla, 2008; Tomás Carpi, 1998; Uriel, 1997). Two main factors help to explain this slow progress:

on one hand, insufficient development of evaluation methods, and, on the other hand, reciprocal resistance from both the main academic economics current and the organizations themselves to carrying out and using valuations of volunteer work.

From the microeconomic perspective, the predominant attitude in the voluntary organizations is a resistance to quantifying and using valuations of volunteer work. Mook, Sousa, Elgie, and Quarter (2005) revealed that paradoxically, only 7% of Canadian voluntary organizations estimate the economic value of their volunteers and only 3% reflect it in their annual reports. These resistances are partly due to the limited development of valuation methods. From this point of view, the efforts of Gaskin (2000, 2004), Independent Sector (2001), Mook and others (Mook, & Quarter, 2006; Mook, Richmond, & Quarter, 2003; Mook et al., 2005), and Perrot (2006) to set up social accounting systems covering volunteer work in organizations should be mentioned. The development of these techniques is opening up new lines of research. For instance, although volunteer work is free for the organizations concerned, its cost is by no means negligible. Recent papers have studied these costs (Graff, 2006; Grantmaker Forum on Community and National Service [GFCNS], 2003; Mook et al., 2005) and their implications, both in accounting terms and from the point of view of the factors limiting the growth of volunteer work (Sajardo & Serra, 2008).

Not only are the voluntary organizations apparently oblivious to the microeconomic methodological problems that affect them in full, but obstacles are also noted from the macroeconomic point of view of the National Accounts. Indeed, neither the gross quantification of volunteer work in terms of total hours nor its conversion into economic and monetary figures and its comparison and integration with other national macro figures is free from difficulties or dissentions, revealing problems of academic acceptance, and even though these matters are of social interest and usefulness.

Since the end of the 1990s, a number of studies along these lines have been the first to provide statistical information on important variables in the voluntary sector, such as the mean ratio of volunteers to the total population, the socioeconomic characteristics of the volunteers, their commitment in number of hours, and estimates of the total number of volunteers and their full-time equivalence (see Salamon, & Anheier, 2001, for instance). However, these studies are based on simple valuation methods. Recent developments such as methodological proposals for aggregate valuation of volunteer work and the voluntary sector have tended to take the form of manuals intended for statistics offices. The most outstanding example is the *United Nations Handbook on Non-Profit Institutions in the System of National Accounts* (United Nations, 2002, 2003), which contains a section on volunteer work and has been applied in pilot form in Australia (Australian Bureau of Statistics, 2002), Belgium, and Canada (Sajardo & Serra, 2008).[3] The work done jointly by the International Labor Organization (ILO) and the Johns Hopkins Center for Civil Studies (JHU/CCSS) on drawing up a *Manual on the Measurement of Volunteer Work* (Technical Experts Group, 2007) is of the greatest significance. The statistical study uses the existing labor surveys carried out periodically at international level and includes a brief questionnaire on volunteer work in the broadest sense of the term, that is, both formal and informal (Archambault, 2002; Archambault & Kaminski, 2004; Archambault & Prouteau, 2009). A resulting draft ILO manual on the measurement of volunteer work was submitted to the 18th Conference of Labor Statisticians in Geneva in December 2008.

Against this background, the aims of the present study were twofold: first, to analyze the problems of valuing volunteer work and propose some contributions to theory on this subject that have heuristic potential, and second, to apply the proposed methodology to the case of the voluntary sector in the Valencia region of Spain.

The next section addresses the main difficulties in connection with scientific advances in valuing volunteer work. The following section analyzes the different methods that have been proposed for valuing this work. This is succeeded by an estimate of the volunteer work accounts of the social and environmental voluntary organizations in the Valencia region of Spain. The fieldwork methods are based on a survey of managers and technical staff of the voluntary organizations themselves, employing stratified random sampling. The Conclusions section brings the article to a close.

Obstacles to the Progress of Research on the Economic Valuation of Volunteer Work

Scientific progress in valuing volunteer work faces many obstacles. The first set of hurdles is related to the availability of data and the resistance of the sector itself to being quantified, the second is the problem of the concept and method of measuring the social value added by volunteer work, and the third is the concept of integrating the figures on volunteer work into the national accounts systems, including one of their main aggregates, GDP, and how this should be achieved.

Obstacles to Valuing the Social Value Added by Volunteer Work and to Its Integration Into the National Accounts

From the other side, that of the academic/economics sphere and the institutions, the contribution made by volunteer work has been absent from the micro- and macroeconomic accounting records and especially from the usual major macroeconomic aggregates such as GDP, although, in this case, for reasons of scientific concept. This absence is a result of the dominant concept in economics according to which the economic indicators should be based exclusively on entries that can be represented in monetary terms and can be sold on the market (market sector) or counted in the public sector economy (nonmarket sector). As this concept of wealth is biased toward the monetary dimension and, above all, the economic and financial dimension, it naturally excludes voluntary work.[4] However, it also excludes substantial spheres of socioeconomic reality, such as domestic work or the negative effects of economic growth on the environment. If these were counted, they would make way for a significant transformation in the prevailing view of the socioeconomic welfare of nations.

To correct this situation, these wealth indicators have been questioned in recent years, particularly GDP, and more suitable ones such as the *New Indicators of Wealth*

(Gadrey & Jany-Catrice, 2006) have been proposed to take their place. Two of the new indicators that have been proposed are the United Nations' Human Development Indicator (HDI) and its Indicators of Sustainable Development. Within the framework of these indicators, efforts to estimate "the economy that is not counted in GDP" (*Economiaz*, 1997; García Díez, 2003 Tomás Carpi, 1998) have multiplied.

In this context, volunteers make net contributions to socioeconomic welfare that are reflected in part of the literature under the concept of "social value added."[5] Precisely the possibility of reflecting this "social value added" and the need to do so is what makes it possible to mark and render visible the difference between for-profit companies and those such as voluntary organizations that belong to the third sector/social economy (Bouchard, 2008; Chaves, Monzón, & Sajardo, 2003; Fraisse, Gardin, & Lavilla, 2001; Gadrey, & Jany-Catrice, 2006). Various advances are being made in matters of social balance sheets and social audits, with the aim of broadening financial statements by including social and environmental indicators (see Perrot, 2006, for example).

Over and beyond establishing new social and wealth indicators, however, the great challenge is to get volunteer work included in the National Accounts, because, as mentioned previously, as things stand today it is invisible in GDP.

The purpose of National Accounts is to quantify the economic activity generated by a country through estimates of significant aggregated figures and the relationships between the economic units that intervene in the economic process. These units, or large aggregates of economic operators, are grouped by function, be it output (in the case of companies) or consumption (in the case of households), or by their institutional nature. These groupings of economic units comprise institutional sectors in the National Accounts.

Currently, the National Accounts systems (both SNA-93 and ESA-95; Eurostat, 2003) consider the workings of the economy on a production basis, from which they classify the institutional sectors according to their sources of funding. ESA-95 distinguishes the following institutional sectors:

- The market producers sector (P11), made up of those that operate in the marketplace to sell goods and services and that derive their resources from these sales. It is composed of "Nonfinancial Corporations" (S.11) and "Financial Corporations" (S.12), more usually known as "private companies" and "banks."
- The nonmarket producers sector (P.12), made up of those that produce goods and services but obtain most of their resources outside the market, namely, from public funding (taxes), members' fees, donations or revenue from land. It is composed of General Government (S.13) and Nonprofit Institutions Serving Households (NPISH) that are independent legal entities and of economic importance (S.15).
- The producers for own final use sector (P.13), also known as the Households sector or the Domestic Economy (S.14), includes individuals as consumers,

> producers of goods, and nonfinancial services exclusively for their own final use and NPISH that do not have independent legal status or those that do but are of minor importance (ESA-95, 2.87-2.88).

In order to determine the type of producer and sector to which private NPIs belong, the ESA-95 uses the 50% criterion. If more than 50% of the production costs are covered by sales, the institutional unit is classified as a "market producer" in the nonfinancial corporation or financial corporations sectors; if less than 50% of the production costs are covered by sales, the institutional unit is classified as an "other nonmarket producer" in the NPISH sector. However, other nonmarket NPIs that are controlled and mainly financed by general government are classified into the general government sector (ESA 3.32).

Consequently, it can be seen that the National Accounts do not include certain fields of relevance from the point of view of institutional sectors such as nonprofit institutions (NPI), voluntary organizations, the social economy or third sector and volunteer work, or do so only partially.

Starting with ESA-95 a decade ago, the National Accounts in Europe now take the third sector into account for the first time or, more accurately, that which is classified as the NPISH sector (Mertens, 2001). ESA-95, the 1995 European System of Accounts, defines an NPI as

> a legal or social entity created for the purpose of producing goods and services whose status does not permit them [sic] to be a source of income, profit or other financial gains for the units that establish, control or finance them. In practice, their productive activities are bound to generate either surpluses or deficits but any surpluses they happen to make cannot be appropriated by other institutional units. (ESA-95 3.31).

This means that NPIs are spread through the three major institutional sectors cited previously: the market producers sector, the nonmarket producers sector, and the producers for own-final-use sector (households) depending on the nature of their source of funds. Volunteer work itself is an asset that in turn is spread over all these institutional fields, although it is mostly concentrated in that of NPISHs.

The national accounts mechanism for collecting information in relation to more specific spheres of economic reality that escape the general system, such as the subject of this article, is the satellite accounts system. Satellite accounts give a more detailed level of information on spheres such as economic activities (agriculture, transport, trade, etc.), social functions (health, education, the environment, social protection, etc.), or groupings of economic units (the institutional sectors and subsectors).

Voluntary organizations comprise a subgroup of NPIs called NPISHs, which in turn are subdivided into private NPISHs in the nonmarket producers sector and private NPISHs in the household sector. The latter comprise NPISHs that do not have independent legal status or those that do but are of "minor economic importance."

This distinction needs to be made more precise in the case of voluntary organizations. Many voluntary organizations have independent legal status, whether as associations, foundations, federations, cooperatives, or through other forms, but the decisive factor is how "minor economic importance" is defined.

On this subject, the only reference to date in Spain is the study by Barea and Pulido (2001). These authors propose the following definition: a NPISH is of minor importance when it employs 2 or fewer people. Consequently, only NPISHs that employ 3 or more workers belong to the nonmarket producers sector. Tchernonog (2007) applied a similar criterion for classifying NPISHs, on the basis of a major study that focuses on French associations.

Even if this quantitative measurement of the economic magnitude of volunteer organizations is accepted as valid, the criterion presents at least one great weakness, which is that it does not take voluntary work into account. Should an association be considered of minor economic importance if it provides social services through dozens (or even hundreds) of volunteers but has just one part-time employee or outsources its administrative tasks to a small external company? We propose retaining the number of workers criterion, and also propose counting unpaid workers (volunteers) as well as those who are remunerated, requiring that the organization employ at least one paid worker, as this reveals the existence of a consolidated structure supporting the organization's voluntary workers.

The Social Surplus of Voluntary Work (SSV) As Nonmarket and Nonmonetary Output

Another methodological problem lies in valuing the voluntary work and the output derived from it, as well as in fitting it into the standard national accounts system (ESA-95). The challenge is to fit voluntary work, as nonmarket and nonmonetary output, into this framework.

The European System of Accounts (ESA-95) defines *production* as "an activity carried out under the control and responsibility of an institutional unit that uses inputs of labour, capital and goods and services to produce goods and services" and *output* as consisting of "the products created during the accounting period." It distinguishes between three types of output: market output (P.11), output produced for own final use (P.12), and other nonmarket output (P.13).

For the purposes of this article, the relevant category of output is the latter, defined as "output that is provided free, or at prices that are not economically significant, to other units."

We understand the output of services by formal volunteers in the voluntary sector to be output in this sense of the ESA-95, as it is produced within an institutional unit (a nonprofit volunteer work organization) and is nonmarket (it is provided free).

The ESA-95 establishes that nonmarket production should be valued on a cost basis, basically under the heading of "compensation of employees," rather than through market prices, which do not exist. This is the method that is applied to public administration nonmarket output, for example. However, another methodological problems arises when attempting to apply this valuation method to volunteer work: There is no remuneration, so no cost. Consequently, it is nonmarket and nonmonetary output.

The challenge is twofold: First, how to assign a theoretical cost to the voluntary work, and second, having done so, to determine under which item of the national accounts, and more specifically the generation of income account, it should be placed. ESA-95 is silent on this subject.

The starting point is to recognize that the output of voluntary work is gross value added and must therefore must appear in the entries. The question is, under which item of the generation of income account? The main contending alternatives are to add it to "compensation of employees," which is the option used by Mertens in *Le compte satellite sans but lucratif 2000-2001* (Mertens & Lefèbre, 2004), or to assign it to "gross operating surplus" (Hamdad & Joyal, 2005).

We consider that since voluntary work is unpaid, its value should not be included in "compensation of employees." Nor, obviously, should it be assigned to gross operating surplus, which is appropriated by the owners of the company (in this case, the voluntary organizations). Instead, we subscribe to the position of García Delgado (2004) of creating a new item we call SSV, with society itself as the creditor.

Finally, in the distribution of income account of the national accounts, the value of voluntary work would be transferred from the NPIs (voluntary organizations) sector as defined previously, to the household sector under the heading of "Social Transfers in Kind" (ESA-95 item D.63). The ESA-95 establishes that these transfers consist of individual goods and services provided as transfers in kind to individual households by government units and NPISHs, whether these goods and services are purchased on the market by these units or are produced by them as nonmarket output. Social transfers in kind include social benefits in kind and transfers of individual nonmarket goods or services:

The Debate Over Volunteer Work Valuation Methods

What value should be attributed to volunteer work? Two methods for calculating it have been proposed: the output method and the input method (O'Neill, 2001; Prouteau, 2006; Prouteau, & Wolff, 2004; Sajardo & Serra, 2008).

The former is based on valuing the goods or services generated by volunteer work. The calculation takes the value of the goods and services produced by the voluntary organizations and breaks down the contributions made by paid workers, capital, and volunteers. There are major obstacles to putting it into practice (Prouteau, 2002). First, it requires clear and full identification of the outputs generated by volunteer work, which is not generally possible. Second, there is often no substitute on the market for the output produced by volunteers, whether because if it does exist it is of a very imperfect kind or because there is simply no market production, making it impossible to identify a benchmark market price. This is the case in the great majority of the outputs produced by the voluntary sector, particularly in contexts of little or no financial solvency on the demand side or where outputs of a public nature are affected by "free-rider" problems.

The logic of the input method lies in attributing a monetary value per unit of time of volunteer work. This method can be implemented in two ways: through the opportunity cost, and the cost of replacing the volunteer work.

The *opportunity cost* technique consists of quantifying the income from remunerated pursuits that the volunteers give up to carry out their unpaid voluntary work. It is based on the rational postulate that we all know how to determine the opportunity cost of our voluntary activity in relation to a paid activity, which is equal to the marginal values we attribute to the different uses of our time.

This approach suffers from various weaknesses. First, it ignores that because a large part of the volunteers do not engage in any paid work, either because they are no longer part of the active population (e.g., retired people) or because they have never been part of it (e.g., students or unpaid houseworkers), there is no monetary cost of opportunity. Second, the value that each volunteer places on his or her free time is subjective, is hard to compare from one individual to another, and in any case involves different opportunity costs. Third, the very choice of employment income as the basis for valuing volunteer work poses a problem, as it assumes that the activities that people spend time on generate a direct (dis)utility to the detriment of their indirect utility. In this way, if the direct utility provided by volunteer activities differs from that derived from the paid activity, then the valuation of the latter cannot be considered the opportunity cost of the volunteer work (Prouteau, 1999).

The second of the two techniques is based on the *replacement cost* for the voluntary organization. It tries to value what the organization would have to pay for the services of the volunteers, if these services were provided by paid workers.

The simplest way to put this technique into operation is to use a general measurement (a general benchmark salary) to arrive at a total figure for the value of volunteer work in the organization. The few international studies along these lines have used a number of alternatives as the benchmark salary. The average wage in the social services sector is used in the United Nations *Handbook* (2002, 2003), the mean nonagricultural wage by the Johns Hopkins University project (Salamon, & Anheier, 2001), and the wages paid by nonprofit organizations in their respective spheres of action is employed in other studies such as Mertens and Lefevre (2004).

A more precise and advanced but little-used method is to classify the tasks carried out by the volunteers into labor categories[6] and having identified these, to calculate the cost to the organization if the work were done by paid specialists.

Although replacement cost is the method most often used, it too presents weaknesses. The first is that the tasks carried out by the volunteers are hardly comparable with those performed by paid employees in terms of labor productivity, so similar remuneration should not be attributed to them. The relative productivity of volunteers and paid staff is an interesting subject and will be compared in the next section of this article.[7] Nonetheless, by using the replacement cost method to calculate the economic value of volunteer work this study implicitly assumes full comparability and identity between the tasks carried out by the volunteers and those of the paid employees.

Volunteer Work Accounts

Measuring the value of volunteer work does not simply mean quantifying the hourly equivalent and assigning it a theoretical price. Paradoxically, volunteering entails costs. On one hand, the theoretical social security and tax (taxes on labor) costs need to be considered. We believe that these costs should be included in the calculation, insofar as if the voluntary organization would have had to pay them had it needed to engage this workforce on the ordinary labor market.

Other costs that are specifically bound up with volunteer work and also need to be calculated are those known as volunteer management costs (VMC). The volunteer management phases or cycle perspective (Serra & Sajardo, 2007) makes it possible to identify valuation items. The phases are incorporation, development, assessment, monitoring, and retention.

The incorporation phase costs cover drawing up the job description, attracting volunteers (both actively and passively), and candidate selection and induction. The development stage of volunteer work tasks covers training, communication between the volunteer and the organization, and the expenses paid by the volunteer in the course of his or her output-producing work. The last phases are assessment, meaning the application of systematic methods to gather information on the efficacy and efficiency of the volunteer work, and monitoring, the key to motivating and controlling the volunteers working in the organization, which includes tasks such as recording and evaluating the activities carried out, the resources assigned, and the basic actions they perform.

Calculating these expenses presents serious difficulties in practice, as the organizations generally lack specific volunteer management systems. The expenses they occasion are generally subsumed into the organization's budget and remain invisible. The few studies that have tackled this type of expense have been based on global estimates of their yearly cost to the organization.

One factor that introduces yet greater complexity into volunteer work accounts is the fact that certain expenses incurred by the volunteers in the course of their work are paid by these volunteers and only partially reimbursed by the organizations. If they are reimbursed, normal accounting procedures charge them to "Compensation of expenses incurred by volunteers." However, there is a lack of studies on the levels of compensation effectively paid. When these expenses are not reimbursed, whether because the organization does not pay compensation or because the volunteer does not wish for it, they become "Donations by volunteers, in kind." In other words, the volunteers not only contribute work but also make donations that should be accounted for as such.

Economic Valuation of Volunteer Work in Valencia, Spain

The following is a first valuation of social and environmental volunteer work in Valencia, Spain.[8] In this article, the focus is, therefore, on volunteer work channeled through nonprofit organizations, in other words on the voluntary sector, which comprises the bulk of voluntary work.

Method

The study universe is voluntary organizations working in the social action, international cooperation, and environmental sectors in the Valencia, Spain. The source register chosen is the Directory of Voluntary Organizations of FUNDAR (Fundación de la Solidaridad y el Voluntariado de la Comunidad Valenciana or Solidarity and Volunteering Foundation of the Region of Valencia), which lists 36,681 entries.[9] This universe was culled twice. The first cull removed organizations working in areas other than the three to be studied, resulting in a total of 3,751 organizations. The second removed others for a number of reasons, such as their being impossible to locate, having ceased to exist, being inactive, or being duplicated on the list. The resulting population numbered 1,939, of which 192 were environmental voluntary organizations. A sample of from this population was designed, comprising 492 organizations stratified by activity-specific sectors and provinces, with a sampling error of 3.89% and a 95.5% confidence interval.

The questionnaire employed was divided into the following sections: record card, characteristics of the organization, characteristics of paid employment, characteristics of volunteer personnel, training of volunteer personnel, and annual report of the organization. The questionnaire was addressed to the voluntary organizations' management and qualified personnel. The fieldwork was carried out in October and November 2006. Statistical treatment of the data was carried out with the SPSS.

The definition of volunteer work in the questionnaire was based on that of the Autonomous Community of Valencia's Voluntary Service Act 4/2001 of June 21, 2001, which in turn is based on the Spanish Voluntary Service Act 6/1996 of January 15, 1996, and is as follows: "Any type of work performed in an NPI, irrespective of frequency, without having a contract of employment and remuneration for such work or without being a grant recipient" (reimbursement of expenses incurred in the course of this work, such as travel expenses, meals, or other small sums, are not considered remuneration).

Results

From the treated data, the following gross numbers of volunteers were estimated according to their role in the voluntary organizations:

The service volunteers group, comprising operational and functional volunteers, is made up of volunteers directly related to the basic activities that constitute the purpose of the NPI to which they belong. Operational volunteers are those who deliver the organization's services directly to its direct users, whereas functional volunteers provide their labor in supporting tasks related to these activities, such as computer services, representing the organization, communication, and so on. The two types

Table 1. Number of Volunteers by Activity Within the Organizations

Operational volunteers	54,535
Functional volunteers	19,865
Total service volunteers	74,400

Table 2. Number of Volunteers in Social and Environmental Voluntary Organizations in the Region of Valencia, by Sector

Volunteers	Total	Environment	Social action	International cooperation
V	74,400	10,650	55,931	7,819
%	100	14.3	75.2	10.5
FTEV	15,323	2,773	11,324	1,226
%	100	18.1	73.9	8.0
Time commitment (hours/month/volunteer)	30.1	37.7	29.4	22.8
Mean no. of volunteers	32.6	46.0	32.4	23.9
Mean budget (€)	251,450.0	95,821.0	251,370.0	383,479.0
Total hours/month of voluntary work	981.3	1.734.2	952.6	544.9

Note: V = total number of volunteers; FTEV = number of full-time equivalent volunteers.

were identified through an item in the questionnaire that made it possible to identify the type of task or activity that the NPIs volunteers performed.

One important result is that almost half the volunteers work in strictly voluntary organizations with not even a minimum structure of paid professionals. Of the population of 1,939 voluntary social and environmental organizations, 1,123 employed at least one salaried person as well as voluntary personnel. This group belonged to the NPISH subsector. It employed all the 16,383 full-time equivalent paid employees in the Valencian voluntary sector and 55.9% of the volunteer workforce, in other words, 41,590 volunteers. The remaining 816 organizations did not employ any paid personnel and had 44.1% of the volunteers, a total of 32,810 persons.

Conversion of the raw data on volunteers into weighted full-time equivalent jobs (full-time equivalent volunteers or FTEV) with reference to the average 1,753.8 annual working hours for full-time employees in the services sector in Spain[10] gives the results shown in Table 1.

In aggregate terms, the volunteers are concentrated in the social action sector, which accounts for 75.2% of total volunteers and 73.9% of FTEV, or 55,931 and 11,324 persons, respectively. Environmental volunteering comes a long way behind, with 10,650 total and 2,773 FTEV. In relative terms, however, the environmental organizations make more intensive use of volunteer work than do those engaged in social action.

Table 3. Social Surplus of Voluntary Work for Different Salaries

Social surplus of voluntary work	GVA (Thousand €)	% of GDP cv_{cf}
SSV W1 (average wage for sectors N and O)	382,203.1	0.44
SSV w2 (average wage for sector N)	347,137.9	0.40
SSV w3 (average wage VRVO + social security + income tax)	218,199.5	0.25
SSV W4 (average wage VOVR – social security – income tax)	179,294.4	0.21
SSV W5 (minimum wage)	116,034.9	0.13

Note: GDP cv_{cf} = gross domestic product of the Valencia region at cost, 2006; GVA = gross value added; SSV = social surplus of voluntary work; VOVR = voluntary organizations in the Valencia region.

The valuation of volunteer work was carried out by the substitution-cost method, which requires fixing a reference salary (w). A number of reference salaries were considered for this purpose: the average annual wages for the economic sectors in which the voluntary organizations work (data from the Spanish National Statistics Institute and Ministry of Labor and Social Affairs), the minimum wage, and the wages ascertained through the fieldwork for this study, which made it possible to obtain the mean annual salaries of the different employment categories of paid employees of these voluntary organizations in the Valencia region.

In figures, the reference salaries used were[11]

1. W1 = average wage for services sector N, National Accounts, Valencia Region, INE, 2002, updated = €24,943.10;
2. W2 = average wage for services sectors N and O, National Accounts, Valencia Region, INE, 2002, updated = €22,654.70;
3. W3 = average wage for persons working directly with beneficiaries or users of the Valencian voluntary organizations studied, not including social security and tax costs = €11,701;
4. W4 = W3 + 21.7%[12] = average wage for persons working directly with beneficiaries or users of the Valencian voluntary organizations studied, including social security and tax costs = €14,240;
5. W5 = minimum wage in 2007 = €7,572.60.

The aggregate economic value of the volunteer work or SSV is calculated by multiplying the total number of FTEV, that is, 15,323, by each reference salary. The results show that the SSV lies between €382,203 million and €116,035 million, in other words, between 0.44% and 0.13% of the GDP of the Valencia region, depending on the reference salary employed.

The most accurate reference salary is that which is closest to the wages received by the paid employees of the voluntary organizations where the volunteers work for performing similar tasks. In this case, the nearest reference salary to the reality of the volunteers under study was W4. In terms of this salary, the SSV is €218,199 million, equivalent to 0.25% of the GDP of the Valencia region in 2005.[13]

Comparison of this figure with other branches of activity reveals its relative importance in this region. It is close to the compensation of employees of a key sector in the region's economy, agriculture (€331.2 million), and decidedly higher than the contribution made by the Valencian savings banks' social work (€79.6 million).

Nevertheless, this valuation needs to be qualified, as it has an inbuilt bias due to differences in productivity between volunteers and paid personnel. Indeed, the present study has found that 45% of those in charge of voluntary organizations considered the productivity of the volunteers to be definitely lower than that of paid workers doing similar tasks. Only 10% considered that the volunteers display higher productivity. The remainder considered the volunteers' productivity similar or slightly lower.

As regards VMC, the serious shortfalls in the existing information, given the widespread lack of such records in the voluntary organizations, made it necessary to resort to indirect methods.

The first item of VMC is the time that the voluntary organizations' paid human resources devote to training and managing the volunteers. The survey obtained information on the total time spent and the breakdown by employment categories of those spending time on the volunteers. This reveals that approximately 10% of the time of the paid personnel is spent on volunteer management tasks, an average of 4 hr a week. This is the main cost of volunteer work, accounting for 59.4% of the total.

The second volunteer management cost item is training other than that provided directly by the voluntary organization's paid personnel. It includes the cost of teaching materials, teachers, spaces, and so on required for courses given within the organization and the cost of external training programs.

The third item of VMC is insuring the volunteers. The data obtained in this study reveal that over two third of the voluntary organizations have third-party liability and accident insurance for their volunteers. The global estimate for this expense is €0.3 million.

As regards the expenses incurred by volunteers in the course of their work, paid by them and possibly reimbursed, the data show that this type of expense is repaid by more than half the voluntary organizations surveyed in the present study, to be precise, in 55.3% of cases. Compensation is most frequently paid for travel costs (documented), in more than 50% of cases, and to a lesser extent, for meals. Accommodation or the use of telephones or computers are less frequently reimbursed. There are no studies of the sums involved in Spain. In countries where figures are more readily available (Canada, the United States, Australia), the estimated total values of expenses incurred by volunteers range between US$300 and US$1,000 a year. In these countries, associations representing volunteer workers are detecting a loss of motivation to continue volunteer work because of the size of these expenses, as only a small part are reimbursed. From the data collected in this study, a total of €175 per volunteer and year was attributed for calculation purposes, giving a total figure for compensated expenses of €7.2 million. Table 4 summarizes these results.

Finally, "Donations from volunteers" (DV) in the form of compensable expenses not reimbursed to the volunteers amounted to €5.82 million. They made up

Table 4. Effective Volunteer Management Cost

Volunteer cost items	Million €	%
Cost of salaried personnel engaged in volunteer management	19.22	59.4
Cost of training volunteers	5.65	17.5
Cost of insuring volunteers	0.30	0.9
Compensable expenses reimbursed to volunteers	7.20	22.2
Total	32.37	100.0

Table 5. Aggregated Economic Accounts of Volunteer Work in the Valencia Region, 2006

Valencia region volunteer work accounts	Million €
CV (SSV + DV)	224.02
SSV	218.20
VMC	32.37
DV	5.82
Effective output of volunteer work	256.39

Note: CV = contribution of voluntary work; SSV = social surplus of voluntary work; VMC = total effective volunteer management cost; DV = compensable expenses not reimbursed.

approximately 10% of the total private donations received by the voluntary organizations of the Valencia Region, a very telling figure.

Aggregated Accounts of Volunteer Work in the Valencia Region

The value of the economic contribution of volunteer work in the voluntary organizations studied is the sum of the volunteers' contributions in voluntary work and in donations. It totals €224.02 million. In comparative terms, this figure is nearly 50% of the total budget of the voluntary organizations in this region (estimated at €450.04 million). Were its value to be included in these organizations' accounts, the impact would be huge.

The effective output of volunteer work has been calculated as the sum of the SSV and intermediate consumption, the former being identified as volunteer work gross value added and the latter as the sum of all the VMC, whether paid by the organizations (€32.37 million) or paid by the volunteers and entered under donations in the accounts.

Effective output of volunteer work[15] = [SSV] + [VMC + DV] = €256.39 million

These aggregate figures for volunteer work in the Valencia Region are summarized in Table 4.

Lastly, it should be pointed out that despite the economic magnitude of volunteer work and the potential usefulness of this information, the voluntary organizations seem unaware of its significance, as shown by the fact that only 25% of the medium- or large-sized voluntary organizations in the Valencia region give statistical information on their main asset, their volunteers, in their reports, and at that without measuring its value, and only 15% use this information in their efforts to raise private or public funding.

Conclusions

Volunteer work is a sphere of reality; its badges of identity are solidarity, public benefit, and commitment to the environment and to social welfare. The increasing interest in volunteer work around the world is matched by the interest aroused by the third sector and the social economy, as a social sector that is different from the traditional public and private institutional sectors. Rigorous valuation of voluntary work at both micro- and macro-economic level will help to give it a higher profile and greater social and institutional recognition and will be a decisive tool for better planning of government policies and of the work undertaken by the voluntary organizations.

Despite this interest in voluntary work, scientific advances and the practice of measuring the value of volunteer work are both limited at present. This study has looked into the causes of the lack or progress and has made theoretical and empirical contributions to this field.

It has shown the many difficulties in valuing this area of economic reality, particularly in terms of methods and of obtaining reliable, rigorous, and systematic information on the subject. This work has made proposals for integrating volunteer work and the voluntary sector into the National Accounts system by introducing new elements such as a new definition of entities of economic importance and identifying new dimensions of the voluntary sector such as the concept of the SSV and the existence of VMC and of other contributions made by volunteers in addition to their work, in the form of compensable expenses incurred by but not repaid to the volunteers that must be considered private donations.

In the field work, the reference framework of theory was systematically applied to a study population comprising the 1939 social and environmental voluntary organizations in the Valencia region of Spain. This empirical study revealed that the voluntary sector calls on a large workforce, 74,400 volunteers totaling 26,873,280 hr a year, equivalent to 15,323 FTEV.

The economic value of volunteer work or SSV has been estimated at €218.2 million. This figure is equivalent to 0.25% of the GDP of the Valencia region in 2006. Compared to the compensation of employees in other sectors of economic activity in this region, it is very close to that of agriculture, a significant sector of the region's economy. Furthermore, this study has estimated the VMC and donations by volunteers, showing that these are not insignificant.

Consequently, it has demonstrated that although the technical obstacles are surmountable, as shown by the work carried out, the progress of research in this field of the social sciences remains fraught with sociopolitical and other obstacles.

Notes

1. This article focuses on formal volunteers, in other words, voluntary work systematically channeled through a formally constituted organization. Informal or spontaneous volunteers have not been included as they were not the subject of this study, which employed the concept of volunteer work as defined by the Spanish Voluntary Service Act 6/1996 of 1996 (January 15, 1996), and the Autonomous Community of Valencia's Voluntary Service Act 4 of 2001 (June 21, 2001), which agree, among other matters, in defining it as tasks performed through NPIs/organizations in accordance with rules or on specific projects. The authors have continued their research on this subject and in 2009 conducted a study for the Observatorio del Voluntariado de la Comunidad Valenciana [Volunteer Work Observatory of the Valencia Region], Las entidades de solidaridad y voluntariado y la ciudadanía en la Comunidad Valenciana [Voluntary and Solidarity Organizations and Corporate Citizenship in the Valencia Region], which covered both formal and informal volunteers. To ascertain the figures for volunteering as a whole, a survey was applied to a representative sample of the region's population. It was estimated that the number of people aged between 18 and 70 who perform voluntary work in the Valencia region was 204,111. This accounts for 19.01% of the total volunteers in Spain because, according to the latest study by the Spanish Ministry of Labor and Social Affairs, the number of people doing volunteer work in Spain is 1,073.636, in addition to the 284,000 who work in NGOs as employees. Compared to other sectors, social action volunteer work is by far the largest, with 77% of the total number of volunteers. This sector, which attends to the most vulnerable groups, is followed by development cooperation and the environment (Sajardo & Serra, 2009).
2. The United Nations currently has a worldwide Volunteers Program and in 1998 the European Commission issued a communication on promoting the role of volunteers in Europe (Serra & Sajardo, 2007).
3. In France, Kaminsky (2005) is making great progress in integrating the value of volunteer work into NPI accounts by the UN method.
4. One of the authors (Serra, in press; see also Serra, & Sajardo, 2008) has studied a sector of what is known as the "submerged economy," carrying out an economic valuation of female prostitution in the Valencia region of Spain.
5. The NPIs' social value added is made up of three balances: the net contribution of their activities (in terms of value added), the net contribution of general government (monetary and other contributions that can be assigned a value, after subtracting compulsory deductions), and, lastly, the net contributions of their members (including volunteer work and other private donations in cash or in kind that can be assigned a value). In this context, Volunteer Labor is the main part of social value added (Perrot, 2006).
6. In this context, employment categories means the different occupations or tasks performed in the NPI by volunteers, classified by level of qualification. This classification leads to different remuneration levels in the case of paid employees.
7. This is an explicit reference to the controversy in the literature on NPIs concerning the difficulty of comparing the efficiency of volunteers to that of paid employees. Salamon, a proponent of "Voluntary Third Sector Failure" theory (Salamon, 1987), had already argued

that one of the main deficiencies in the voluntary sector was the nonprofessional or amateur nature of its actions, based on the fact that using unpaid (volunteer) labor implicitly generates a lower level of commitment or performance of their tasks by those collaborating with the NPI, reducing in turn their efficiency. This idea was already present in the first NPI manuals (Anheier, Rudney, & Salamon, 1992; Anheier, & Toepler, 1999; Powell, 1987; Rose-Ackerman, 1986; Weisbrod, 1977). As time has passed these organizations have been driven to increasing professionalization, and, as a result, the argument that volunteers are less efficient than paid employees carries less force.

8. In 2006 the Valencia region had 4,885,029 inhabitants and a yearly per capita income (GDP mp/head) of €20,381, close to the Spanish average.
9. FUNDAR is the most prominent institution for NPI data and analysis in the Valencia region of Spain, as it comprises 90% of the NPIs in this region. The directory provided by FUNDAR on which this study was based contains quantitative formal, legal, and economic data provided by member NPIs, including information on volunteers and paid employees (on whether or not they exist in each organization) and on the NPIs' activities (including whether they are involved in more than one area, although the main activity of each is stated precisely). The directory is updated yearly through ad hoc fieldwork based on questionnaires and completed through studies that FUNDAR itself conducts periodically to analyze specific aspects considered important by the authorities that engage with the NPIs in the region and their national and international outlook. For further information see www.fundar.es.
10. Source: Anuario de Estadísticas Laborales y de Asuntos Sociales [Labor and Social Affairs Statistics Yearbook].data for 2004.
11. National Accounts sectors (Encuesta de estructura salarial, INE [Salary Structure Survey, Spanish National Statistics Institute], 2002):

    - Section N: Health and social work: Spain € 21,432.24, Valencia region 20,648.27.
    - Section O: Other community, social, and personal service activities in Spain: €18,326.22, and in Valencia region: €16,859.72.

    Mean of the two sectors: €18,753.90 per annum in Valencia (Sectors N and O = 20,648 and 16,859.72, respectively).
    Mean average earnings per employee = total cash receipts

    includes employees' social security contributions and tax deducted at source
    does not include subsistence and travel expenses or compensation payments

    - Indexed against the Harmonized Labor Cost Index (ICLA); Spanish National Classification of Economic Activities 1993 (CNAE-93) Section N, INE [Spanish National Statistics Institute], between third quarter 2002 and third quarter 2006 (100 to 120.8).

    $$20{,}648.3 \times 1.208 = 24{,}943.1 \qquad 18{,}753.9 \times 1.208 = 22{,}654.7$$

12. Employees' social security contributions and tax deducted at source in the social work sector (INE [Spanish National Statistics Institute] data, 2007).

13. Source for GDP: Instituto Nacional de Estadística [Spanish National Statistics Institute]. Contabilidad Regional de España. Base 2000. Series 2000-2005 [Spanish Regional Accounts, Basis 2000, Series 2000-2005] (http://www.ine.es)
14. Source: INE, Contabilidad regional de España (http://www.ine.es), 2004 [Spanish National Statistics Institute, Spanish Regional Accounts, 2004]
15. From the point of view of national accounts satellite accounts (Barea & Monzón, 1995, 2007; Mertens, 2001), the production account that gives the effective output of volunteer work is made up of the gross value added and the intermediate inputs required to produce the output under consideration.

Acknowledgments

The authors are grateful for financial assistance from the Fundación de la Solidaridad y el Voluntariado (FUNDAR, 2006/07) for the “Economic Contribution of the Voluntary Sector in the Valencia Region to the National Accounts” research project. They also wish to thank Dr. Rafael Chaves for his comments and Mary Georgina Hardinge for translating this paper into English.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the authorship and/or publication of this article.

Funding

The author(s) received no financial support for the research and/or authorship of this article.

References

Ángel, E. (1978). *La estructura de la ciencia. Problemas de la lógica de la investigación científica* [The structure of science: problems of the logic of scientific research]. Buenos Aires, Argentina: Paidos. 1978. (Original work published in 1950).

Australian Bureau of Statistics. (2002). *Nonprofit institutions satellite account: Australian national accounts*. Melbourne, Victoria: Author.

Anheier, H., Rudney, G., & Salamon, L. (1992). *The nonprofit sector in the United Nations national accounts: Definition, treatment, and practice* (Working Paper No. 4). Baltimore: Johns Hopkins University.

Anheier, H. K., & Toepler, S. (Eds.). (1999). *Private funds, public purpose: Philanthropic foundations of the nonprofit sector*. New York: Plenum.

Archambault, E. (2002). Le travail bénévole en France et en Europe [Volunteering in France and Europe] . *Revue française des affaires sociales, 2*, 13-36.

Archambault, E., & Kaminski, P. (2004). Vers un compte satellite des institutions sans but lucratif (ISBL) en France [Toward a satellite account of nonprofit institutions in France]. *Revue Internationale de l´économie sociale, 293*, 10-23.

Archambault, E., & Prouteau, L. (2009, March 10). *Mesurer le bénévolat pour en améliorer la connaissance et satisfaire à une recommandation internationale* [Measuring Volunteering to improve knowledge and meet an international recommendation] (XXIIéme Colloque de l'ADDES). Paris: Maison de la Chimie.

Barea, J., & Monzón, J. L. (dirs.). (1995) *Las cuentas satélite de la economía social en España* [The satellite accounts of social economy in Spain] (Primera aproximación). Valencia, Spain: Edl Ciriec-España.

Barea, J., & Monzón, J. L. (2007). *Manual for drawing up the Satellite Accounts of companies in the Social Economy: Co-operatives and mutual societies*. Valencia, Spain: CIRIEC-Internacional.

Barea, J., & Pulido, A. (2001). El sector de instituciones sin fines de lucro en España [The nonprofit institutional sectors in Spain]. *CIRIEC-España, revista de economía pública, social y cooperativa, 37*, 321-346.

Bouchard, M. (dir.) (2008). *Méthodes et indicateurs d'évaluation en économie sociale* [Methods and indicators of evaluation in social economy]. Brussels, Belgium: Peterlang–CIRIEC.

Carrasco, F. (1999). *Fundamentos del Sistema Europeo de Cuentas Nacionales y Regionales* [Foundations of the European system of national and regional accounts; SEC 1995]. Madrid, Spain: ediciones Pirámide.

Chaves, R., Monzón, J. L., & Sajardo, A. (2003). *La investigación universitaria en economía social en España* [The university investigation in social economy in Spain]. Valencia, Spain: CIRIEC-Universidad de Valencia.

Cnaan, R. A., Handy, F., & Wadsworth, M. (1996). Defining who is a volunteer: conceptual and empirical considerations. *Nonprofit and Voluntary Sector Quarterly, 25*, 364-383.

Durán, M. A. (dir.) (2006). *La cuenta satélite del trabajo no remunerado en la Comunidad de Madrid* [The satellite account of the nonremunerated work carried out in Madrid communities]. Madrid, Spain: Consejería de Empleo y Mujer.

Ekonomiaz–revista vasca de economía. (1997). Medir en economía. Lo que sabemos que no sabemos [Measurement in economics. What we know we do not know]. The index, with links to the abstracts, is available from http://www1.euskadi.net/

Eurostat. (2003). *Household production and consumption. Proposal for a methodology of household satellite accounts*. Luxembourg: European Commission.

Figueroa, J. R., & Castilla, C. (2008). Valoración económica de los árboles con usos medicinales en la cuenca alta del Rio Botanamo, Venezuela [Economic valuation of the trees with medicinal uses in the watershed of Botanamo, Venezuela]. *Interciencia, 33*, 194-199.

Fraisse, L., Gardin, L., & Lavilla, J. L. (2001). Las externalidades positivas en la economía social [The positive externalities in the social economy]. In J. L. Laville, M. Nyssens, A. Sajardo (Eds.), *Economía Social y Servicios sociales* (pp. 233-251). Valencia, Spain: CIRIEC-España.

Gadrey, J., & Jany-Catrice, F. (2006). *Les nouveaux indicateurs de richesse* [New indicators of richness]. Paris: La Découverte.

García Delgado, J. L. (dir.) (2004). *Las cuentas de la Economía Social* [The accounts of social economy]. Madrid, Spain: El Tercer Sector en España, Civitas–Fundación ONCE.

García Diez, S. (2003). *Labor citizenship: A social and economic reinterpretation of the borders of the national accounting system*. *Cuadernos de Relaciones Laborales, 21*, 167-178.

Gaskin, K. (2000). An *evaluation of the application of the volunteer investment and value audit (VIVA) in three European countries*. London: Institute for Volunteering Research.

Gaskin, K. (2004). *Valuing volunteers in Europe. A comparative study of volunteer investment and value audit*. London: Institute for Volunteering Research.

Graff, L. (2006). Declining profit margin: When volunteers cost more that they return. *International Journal of Volunteer Administration, 24*(1), 24-32.

Grantmaker Forum on Community and National Service. (2003). *The cost of volunteers*. Denver, CO: Author (Now known as PACE [Philanthropy for Active Civic Engagement]).

Hamdad, M., & Joyal, S. (2005). *Satellite account of nonprofit institutions and volunteering*, Toronto, Ontario, Canada: Ed. Statistic Canada.

Hansmann, H. (1980). The role of nonprofit enterprise. *The Yale Law Journal, 80*, 835-910.

Hutchison, T. W. (1985). *Sobre revoluciones y progresos en el conocimiento económico* [On revolutions and progresses in the economic knowledge]. Mexico City, Mexico: Fondo de Cultura Económica.

Independent Sector and UN Volunteers. (2001). *Measuring volunteering: A practical toolkit*. Washington, DC: Author.

Kaminski, P. (2005). *Le Compte Satellite des institutions sans but lucratif en France. Rappoort de mission* [The satellite account of the non–profit-making institutions in France. A report]. Paris: INSEE.

Kramer, R. (1992). Voluntary organizations, contracting and the welfare state. In J. Basheer, C. Cornforth, & R. Paton (Eds.), *Voluntary and nonprofit sector* (pp. 181-191). Reading, MA: Addison-Wesley.

Kuhn, T. (1984). *La estructura de las revoluciones científicas* [The structure of the scientific revolutions]. Mexico City, Mexico: Fondo de Cultura Económica. (Original work published 1970).

Kuhnle, S., & Selle, P. (1990). Government and voluntary organizations. Aldershot, UK: Ashgate.

Mertens, S. (2001). *Le compte satellite des institutions sans but lucrative, 2000-2001* [The satellite account of the non–profit-making institutions, 2000-2001]. Brussels, Belgium: ICN–Banque nationale de Belgique.

Mertens, S., & Lefèbre, M. (2004). *La difficile mesure du travail bénévole dans les institutions sans but lucratif, en Le compte satellite sans but lucratif 2000-2001* [The difficulties in measuring the amount of voluntary work by the non–profit-making institutions. A satellite account of non–profit-making, 2000-2001]. Brussels, Belgium: Institut des comptes nationaux–Banque nationale de Belgique.

Mook, L., & Quarter, J. (2006). Accounting for the social economy: The socioeconomic impact statement. *Annals of Public and Cooperative Economics, 77*, 2, 247-269.

Mook, L., Richmond, B. J., & Quarter, J. (2003). Integrated social accounting for nonprofit: A case from Canada. *Voluntas, 14*(3), 283-297.

Mook, L., Sousa, J., Elgie, S., & Quarter, J. (2005). Accounting for the value of volunteer contributions. *Nonprofit Management and Leadership, 15*, 4.

Myrdal, G. (1970). Objetividad en la investigación social [Objectivity in social research]. Mexico City, Mexico: Fondo de Cultura Económica.

O' Neill, M. (2001). Research on living and volunteering: Methodological considerations. *Nonprofit and Voluntary Sector Quarterly, 30*, 505-514.
Perrot, P. (2006). Définition et mesure de la ¨valeur ajoutée sociale¨ dans les associations [Defining and measuring "social value added" in non-profit organizations]. *Revue Internationale de l´Economie Sociale, 301*, 42-60.
Perroux, F. (1963). *Economie et société. Contrainte, échange et don* [Economy and society: Stress, exchange, gift]. Paris: Presses Universitaires de France.
Phelps, E. S. (Ed.). (1975). Altruism, morality and economic theory. New York: Russell Sage.
Powell, W. (Ed.). (1987). *The nonprofit sector. A research handbook*. New Haven, CT: Yale University Press.
Prouteau, L. (1999). Économie du comportement bénèvole [Economy of voluntary behavior]. *Théorie et étude empirique*. Editions Economica.
Prouteau, L. (2002). Le bénévolat sous le regard des economists [Voluntary work as reviewed by economists]. *Revue française des affaires sociales, 4*, 117-134.
Prouteau, L. (2006). *La mesure et la valorisation du bénevolat* [The measurement and the valorization of voluntary help]. Paris: ADDESS.
Prouteau, L., & Wolff, C. (2004). Le travail bénévole : un essai de quantification et de valorization [Voluntary work: A test of quantification and valorization]. *Economie et statistique, 373*, 33-56.
Rose-Ackerman, S. (Ed.). (1986). *The Economics of Nonprofit Institutions*. Oxford University Press.
Sajardo, A. (1996). *Análisis económico del sector no lucrative* [An economic analysis of the nonprofit sector]. Valencia, Spain: Tirant lo blanc.
Sajardo, A. (1998). El sector no lucrativo en el ámbito de los servicios sociales de la Comunidad Valenciana [The scope for nonprofit work in social services provided to Valencian community]. Valencia, Spain: CIRIEC-España.
Sajardo, A. Dir. (2009). *La responsabilidad social interna de las empresas en España* [The corporate social responsibility of companies in Spain]. Valencia, Spain: Tirant lo Blanc-Ministerio de trabajo e Inmigración.
Sajardo, A., & Chaves, R. (1997). Le partenariat public – organisations sans but lucratif dans les services sociaux [The partnership between non-profit-making and public-organizations in the social services]. *Le cas espagnol, Annals of Public y Co-operative Economics, 68*, 61-82.
Sajardo, A., & Chaves, R. (2006). Balance y tendencias en la investigación sobre Tercer Sector no lucrative [A study of balances and tendencies in the work of nonprofit sector]. *CIRIEC-España, revista de economía pública, social y cooperativa, 56*, 87-116.
Sajardo, A., & Serra, I. (2008). La responsabilidad social empresarial y la Ciudadanía Corporativa en la Comundad Valenciana [The corporate social responsibility for Valencian community). Valencia, Spain: Tirant Lo Blanc-Fundar.
Sajardo, A., & Serra, I. (2009). *Las entidades de solidaridad y voluntariado y la ciudadanía en la Comunidad Valenciana* [The organizations of solidarity and voluntary military service and the citizenship in the Valencian Community]. Valencia, Spain: Ejemplar mimeografiado, depositado en Fundar, Conselleria de Solidaridad y Ciudadanía, Generalitat Valenciana.

Salamon, L. (1987). Of market failure, voluntary failure, and third party of government relations in the modern welfare state. *Journal of Voluntary Action Research, 16*(2), 29-49.

Salamon, L. M., & Anheier, H. K. (dirs.) (2001). La sociedad civil global [The global civil society]. Bilbao, Spain: Fundación BBVA.

Serra, I. (in press). *El mercado de la prostitución femenina en España. Una aproximación desde el caso valenciano* [The market of female prostitution in Spain. An approach from the Valencian case]. Rome, Italy: Rev. Critica Sociologica.

Serra, I., & Sajardo, A. (2007). *La contribución del voluntariado de la Comunidad Valenciana la Contabilidad Nacional* [A national account of the contribution of voluntary military service to the Valencian Community]. Valencia, Spain: Tirant lo Blanc-Fundar.

Serra, I., & Sajardo, A. (2008). *La responsabilidad social de las empresas y la ciudadanía corporativa en la Comunidad Valenciana* [The market of female prostitution in Spain. An approach from the Valencian case]. Valencia, Spain: Tirant lo Blanc-Fundar. Valencia.

Tomás Carpi, J. A. (1998). *Indicadores económicos y estrategias de desarrollo sostenible* [Economic indicators and strategies for sustainable development]. *Quaderns de Política Económica, 15*, 1-36.

Tchernonog, V. (2007). Le Paysage associatif française, Mesures et évolutions, Juris Associations, Dalloz.

Technical Experts Group. (2007, July 4-6). *TEG meeting report. Volunteer Measurement Project Technical Experts Group on measurement of volunteer work*. Inaugural Meeting, Geneva, Switzerland. New York: Johns Hopkins University Press.

United Nations. (2002). *Handbook on nonprofit institutions in the system of national accounts.* New York: Author.

United Nations. (2003). *Handbook on nonprofit institutions ins the system of national accounts*. New York: Author.

Uriel, E. (1997). *Contabilidad Nacional* [National accounting]. Barcelona, Spain: Editorial Ariel.

Weisbrod, B. (ed.) (1977). *The voluntary nonprofit sector*. Lexington, MA: Lexington Books.

Bios

Antonia Sajardo, a tenured lecturer at the University of Valencia, is the research director for the social economy and nonprofit sector of IUDESCOOP—the University Institute of the Social and Cooperative Economy of the University of Valencia—and of ERI-Polibienestar (Institute for Social Welfare Development); a member of the editorial board of the journals *CIRIEC-España* and *Noticias de la economía pública, social y cooperative*; a research projects assessor for the National Evaluation and Forecasting Agency at the Spanish Ministry of Science and Innovation; and scientific coordinator of the nonprofit organizations specialty—MADES (master in administration and management of companies and non-profit organizations in the social economy).

Inmaculada Serra, a tenured lecturer at the University of Valencia, has a PhD in political sciences and sociology from the Complutense University in Madrid. She was a visiting scholar at the Sapienza University in Rome and is a researcher at the Institut Universitari d'Estudis de la Dona (University Institute of Women's Studies). She is on the editorial board of the Italian journal *Critica Sociologica* and is a lecturer in MADES (master in administration and management of companies and non-profit organizations in the social economy).