

# What Accounts for the Variations in Nonprofit Growth? A Cross-National Panel Study

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**Abstract** Previous studies of nonprofit growth have lamented the lack of cross-national longitudinal data measuring the size of the nonprofit sector across countries, which has made it difficult to assess the current state of knowledge about the nonprofit sector beyond national boundaries. Recent progress in measuring nonprofit growth using panel studies or cross-national data has compensated for the limitations of the existing research, but even the recent data are either country specific or cross sectional in nature. This study takes on the challenge of supplementing the current research by measuring nonprofit growth using internationally comparable longitudinal data. Specifically, this study focuses on whether certain key indicators of the overall state of the economy can be used to predict and explain the size of nonprofit sectors cross-nationally. The overall state of the economy has considerable relevance for nonprofit growth, as it influences the levels of government funding and private philanthropy that benefit the nonprofit sector. The results indicate that the existing theories about the nonprofit sector account for variations in nonprofit growth but are limited in their explanations of the underlying dynamics of such variations beyond national boundaries. Social origins theory is a useful addition that

helps to explain cross-national variations in nonprofit growth. Importantly, the interplay among the government, private philanthropy, and the nonprofit sector is dynamic, and its effect on economic indicators varies across nonprofit regime types when sociodemographic variables are controlled.

**Keywords** Nonprofit growth · Social origins theory · Panel study

## Introduction

Recently, a significant number of studies related to nonprofit growth have tested existing theories that attempt to define the proper role of nonprofits in modern society (Corbin 1999; Grønbjerg and Paarlberg 2001; Lecy and Van Slyke 2013; Saxton and Benson 2005; Twombly 2003). The interest in nonprofit growth is not confined to the United States: the topic has attracted scholarly attention from around the world, including Spain (Marcuello 1998), the Netherlands (Burger and Veldheer 2001), South Korea (Choi and Yang 2011; Kim 2002), and China (Guo et al. 2013). Nonetheless, empirical studies with quantitative data are rare in countries other than the US.<sup>1</sup> Empirical studies using longitudinal data are even rarer, although any growth measurement should account for autoregressive effects in dynamically changing environmental contexts

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<sup>1</sup> We do not intend to underestimate the importance of qualitative research on nonprofit growth. Historical and qualitative analyses are equally important for explaining nonprofit growth because of the complexities and dynamics often found in cross-country studies (Henriksen et al. 2012). Qualitative approaches help clarify such complexities and dynamics through in-depth analysis of historical and social changes (Yang 2014).

(Oberfield 2014; Pennings 1982, p. 140). The majority of the previous empirical studies in western countries used either case-based analyses (Burger and Veldheer 2001) or cross-sectional data (Ben-Ner and Van Hoomissen 1992; Bielefeld 2000; Grønbjerg and Paarlberg 2001). This is rather surprising, considering that nonprofit organizations have grown remarkably across countries (Clark 1998; Lyons and Hasan 2002; Salamon et al. 2004).

Meanwhile, there are two signs of progress in the measurement of nonprofit growth. First, longitudinal studies have been conducted to test two major theories of nonprofit growth: government failure theory and interdependence theory (Lecy and Van Slyke 2013; Matsunaga and Yamauchi 2004). Matsunaga and Yamauchi (2004) conducted a panel study using data from the Johns Hopkins comparative nonprofit sector project (CNP) and found support for the government failure theory based on the steady flow of private donations. In a panel study using county data from the US, however, Lecy and Van Slyke (2013) suggested that interdependence theory provides a more viable explanation for growth in nonprofit human service sectors.

Second, in-depth, cross-country analyses of nonprofit growth have been conducted in a series within the Johns Hopkins CNP. Salamon and his associates at the Center for Civil Society Studies at Johns Hopkins University collaborated on a large-scale research project to collect internationally comparable data on nonprofit organizations (Salamon et al. 2004). The project was initiated in 1991, and data were collected from 13 countries. It has since expanded to include more than 45 countries, using teams of local researchers for each of the participating countries (Center for Civil Society Studies 2014). The data drawn from the project have provided a broad foundation for subsequent cross-national studies of nonprofit growth (Matsunaga et al. 2012; Pevcin 2012a, b). The project has made significant headway in addressing the need for comparative analysis but has also had its own limitations, such as model specification issues and a small sample size (Matsunaga et al. 2012). Furthermore, a cross-sectional analysis of the project revealed its failure to capture certain time-dependent processes, so spurious causal inference cannot be avoided (Oberfield 2014; Pennings 1982; Wooldridge 2013).

In the present work, we intend to fill the void in the two main streams of research by presenting a longitudinal study based on internationally comparable longitudinal data. Recent progress in measuring nonprofit growth using panel studies or cross-national data has compensated for the limitations of the existing research. However, recent studies have still been either country specific or cross sectional in nature. We argue that investigators measuring nonprofit growth should strive to capture time-dependent processes

in order to avoid spurious causal inference. Measuring nonprofit growth using longitudinal cross-national data will help preclude the hasty drawing of conclusions that apply to one country but not to others. To accomplish this purpose, we created a 275-point unbalanced panel dataset from 20 countries in the Organization for Economic Cooperation and Development (OECD) for a 21-year period from 1992 to 2012. In the section that follows, we review three prominent theories of nonprofit growth that seemed pertinent for explaining the variations in the nonprofit sector. Next, we empirically test three research hypotheses, focusing on the relationships between economic variables and nonprofit size in the sample countries. We test these relationships using panel regressions, controlling for sociodemographic variables that are known to affect nonprofit activities. Finally, we conclude this study with a few implications for measuring nonprofit growth.

## Prominent Theories of Nonprofit Growth

### Government Failure Theory and Interdependence Theory

Both government failure theory and interdependence theory examine the relationship between the government and nonprofit sectors. However, these theories differ from one another in that the government failure theory views the nonprofit sector as a substitute for government services, while the interdependence theory treats it as a partner in the delivery of public services (Salamon and Anheier 1995; Young 2000). The government failure theory is derived from classical economic theory, focusing on issues related to the delivery of public goods (Stevens 1993). Public goods, such as national security, roads, and public schools, benefit the community. It is argued, however, that the delivery of public goods suffers from free-rider problems, because people who do not share the burden of costs still enjoy the benefits. Moreover, the consumption of a public good by one individual does not reduce its availability to others. Due to their nonexcludable and nonrivalrous nature, public goods are underprovided in the market and are unable to meet the demands of a society (Hansmann 1980). Accordingly, a government intervenes and attempts to spread the burden of delivering public goods by imposing taxes.

When the primary goal of governments and politicians is to win the next election, they tend to provide public goods that satisfy the median voters, leaving unfulfilled many heterogeneous demands of minorities or other disadvantaged groups in society (Weisbrod 1977, 1988). Examples of this phenomenon include detoxification treatment for alcoholics or temporary housing services for the homeless,

as these services typically do not earn enough public support to receive a share of the costs allocated for service delivery. The existence of these unmet heterogeneous demands justifies the presence of nonprofit organizations. Nonprofits are able to respond to heterogeneous demands in a niche market because purchasers wish to select providers that they trust in order to avoid contract failure (Hansmann 1987). Because the majority of voters are unable to reach a consensus in terms of subsidizing the provision of various services, nonprofits capitalize on revenues from individual donors or private foundations. This heterogeneity of demand is a central element of government failure theory (Matsunaga and Yamauchi 2004). Nonprofit organizations exist to supplement voids left by the political preferences of majority governments, and to fulfill social justice needs in diverse societies (Douglas 1987). The larger the number of heterogeneous demands left unfulfilled, the larger the size of the nonprofit sector.

Interdependence theory views nonprofits and governments as partners, recognizing that each sector is limited in its ability to fulfill myriad societal demands, which vary in size and pertain to different target consumers. Nonprofits can fail when private donations are insufficient to meet the heterogeneous demands of society. The government may lack political legitimacy and expertise and may also be unable to fulfill the heterogeneous demands of society at times. The limitations of both the government and nonprofit sectors justify collaborative governance, in which a government is willing to increase the service provision capacity of nonprofits through the use of various policy tools, such as contracts, grants, tax relief, and subsidies. This collaborative relationship may become unviable if nonprofit organizations reduce government capacity or are under excessive pressure to cater to government whims, thereby forfeiting their independence (Lecy and Van Slyke 2013; Saidel 1991). Nonetheless, both sectors admit the necessity of interdependence. For nonprofits, government support is a major revenue source on which they rely to maintain and expand their services. For governments, nonprofits are able to leverage philanthropic resources to supplement government services that do not meet distinct and heterogeneous societal needs (Brooks 2003; Malatesta and Smith 2014). Thus, there is a positive relationship between government support and the size of the nonprofit sector.

These economic theories of nonprofit growth, however, are limited in explaining the observed variations in the size of nonprofit sectors across the world. In their cross-sectional analysis of 22 countries, Salamon et al. (2000) found support for the interdependence theory, showing that nonprofits grow in proportion to the level of government social spending. Lecy and Van Slyke (2013) used panel data on

331 US urban areas and, by carefully separating private donations from government grants, determined that government grants (rather than private donations) contribute to nonprofit growth. Other studies, however, have found support for the government failure theory based on US state-level panel data (Matsunaga and Yamauchi 2004), 22 cross-national datasets (Matsunaga et al. 2012), and 38 cross-national datasets (Pevcin 2012a, b). These works have indicated that the size of the nonprofit sector increases in response to unmet demand heterogeneity at the hands of the government.

Regardless, the increasing role of the government in providing social services raises a serious question about the future growth of the nonprofit sector. Although nonprofits are resilient in their capacity to absorb heterogeneous demands by private support, the role of the government has increased due to the instability of the funding streams from individual and corporate contributors (Anheier 2013; Lecy and Van Slyke 2013). This trend raises a host of questions about nonprofit autonomy, mission shift, and community building. An important issue to be resolved is what level of government involvement in social services will optimally ensure the healthy growth of the nonprofit sector. This is difficult to predict, as nonprofits are resilient and respond to demand heterogeneity, as well as to the supply of government funds for the provision of goods and services. Furthermore, demand-side and supply-side economic theories focus too much on the resource mobilization of nonprofit organizations, downplaying the fact that these organizations are also the products of social and political coordination (Salamon et al. 2004; Seibel 1990).

### Social Origins Theory

Social origins theory, developed by Salamon and Anheier (1998), posits that both the size and development of nonprofit organizations have historical roots and are shaped by complex interrelationships among the political, social, and economic circumstances of each individual organization. There is no adequate single-factor explanation for nonprofit growth, as certain circumstances are more conducive to the growth of the nonprofit sector than others (Salamon et al. 2000). While the government failure theory may offer a probable explanation for variations in the size of the nonprofit sector within a specific country, this explanation may not be generalizable to other countries. Similarly, interdependence theory may be appropriate for one country but invalid for another country, as different countries have different historical roots and contexts. Thus, the various distinct patterns of historical development in different countries define and direct the relationships between nonprofit organizations and governments in the present and going forward.

Using the analysis of Esping-Anderson (1990) regarding the welfare state as a foundation, Salamon and Anheier (1998) proposed four types of nonprofit regimes, each of which was defined by two key dimensions—government social spending and the nonprofit scale. Table 1 shows the list of 22 countries and their nonprofit regime types according to the cross-sectional comparative analysis of Salamon et al. (2000). The first regime type is the *liberal regime*, exhibited by the US, Ireland, and Australia. This type of nonprofit regime is characterized by a low level of government social spending and a large nonprofit sector, in which a relatively strong middle class prefers using volunteer-based problem-solving for social issues. At the other extreme is the *social democratic nonprofit regime*, which relies more heavily on government aid than on nonprofit organizations for social spending. Represented by Austria and the Nordic countries (such as Finland), this type of nonprofit regime greatly depends on government-sponsored welfare programs and has a limited number of service-providing nonprofit organizations. Indeed, this structure is based on the historically strong push of working-class political parties for extensive social welfare benefits for society as a whole (Anheier 2014). Individuals in this type of nonprofit regime engage more in expressive activities than in service activities, although voluntary participation in sports and recreational life is extensive (Salamon et al. 2004).

The *corporatist regime* is characterized by a high level of government social spending and a large nonprofit sector, as exemplified by continental European countries and Israel. Governments in these countries deliberately forge alliances with nonprofit organizations in order to maintain and expand social welfare systems, thus preventing radical demands from those that are disadvantaged. Countries such as Japan and Brazil are classified under the *statist regime*, where both government social spending and the size of the nonprofit sector remain limited. While the working class controls the political arena in social democratic countries, the government dominates civil society in statist regimes. In these countries, histories of strong paternal governance and a weak middle class do not provide a solid foundation

upon which nonprofit organizations can develop as independent welfare systems.

Salamon and Anheier (1998) made it clear that their designated nonprofit regime types were simply heuristic devices intended to exhibit general differences in the development of nonprofit organizations in different contexts. Nonprofit growth in different countries is not easily classified into one of the four regime types, as each country has a unique social, economic, and historical background. For example, the UK could be considered a liberal regime or a corporatist regime in terms of its nonprofit organizations. Most eastern European countries demonstrate an interesting mix of the statist and social democratic regime types (Salamon et al. 2000). The implication of this reality is that no single theory has completely explained nonprofit growth in a general sense (Kabalo 2009). Indeed, due to the many different patterns of nonprofit growth, a uniform explanation of the variations in the size and development of nonprofit sectors worldwide has not been possible.

## Hypotheses

Two prominent theories of nonprofit growth—government failure theory and interdependence theory—are based on demand-side and supply-side economic approaches, both of which examine the availability of private and government resources for the nonprofit sector. The availability of these resources depends in part on the health of the economy in a country, because the overall state of the economy influences the levels of government funding and private philanthropy. Our research focuses on whether certain key indicators of the overall state of the economy can be used to predict and explain the size of the nonprofit sector, how these indicators affect the relationships between governments and nonprofit organizations, and what patterns and variations of these relationships can be observed across countries. These questions were addressed by testing the impacts of three selected economic indicators—household disposable income, total tax revenue, and government

**Table 1** Countries by nonprofit regime type (as classified by Salamon et al. 2000)

Nonprofit size (number of nonprofit employees)	Government social spending	
	Low	High
Large	<i>Liberal</i> Australia, Ireland, US	<i>Corporatist</i> Belgium, Israel, France, Germany, the Netherlands, UK
Small	<i>Statist</i> Argentina, Brazil, Columbia, the Czech Republic, Japan, Mexico, Peru, Romania	<i>Social Democratic</i> Austria, Finland, Hungary, Slovakia, Spain

This table was created based on the results of Salamon et al. (2000) cross-sectional comparative analysis

expenditure for social protection—on nonprofit growth in the sample countries.

### Individual Disposable Income

Although private philanthropy is the least important source of nonprofit revenue in most countries, its importance increases as government support declines (Anheier 2014). We predict that increases in individual disposable income will positively influence the amount of donations, although people may use the money for purposes other than private philanthropy. Given the few available sources of private philanthropy data, we have used household disposable income per capita as a proxy for the willingness of individual citizens to contribute out of their own pockets to support nonprofit organizations, assuming that people are willing to help those in need out of a genuine altruistic concern for their welfare. Household disposable income refers to gross household income, savings, and social benefits, minus taxes, and social contributions to be paid (OECD 2012). The amount an individual gives is primarily affected by the available disposable income at the household level (Lilly Family School of Philanthropy at Indiana University 2015). Thus, we hypothesize that

**Ho1** An Increase in Individual Disposable Income is Positively Related to Nonprofit Growth.

### Total Tax Revenue

Tax revenue is a measure of government size insofar as raising tax rates increases the size of government, while cutting tax rates reduces it (Marron et al. 2012). Government failure theory posits that government services are tailored to the median voter, leaving unmet heterogeneous needs to be fulfilled by nonprofits. Nonprofits attempt to provide the means for these unmet services through private philanthropy. Thus, when government size is controlled, the size of the nonprofit sector increases with the diversity of the demand for heterogeneous services. One might assume that the size of the nonprofit sector decreases when government size (measured by tax revenue) increases, because the government is thereby able to meet some of the societal needs that are otherwise filled by nonprofits.

However, the size of the nonprofit sector is also able to grow in proportion to the size of the government as measured by tax revenue, provided that the government transfers a portion of its revenues to nonprofit organizations in the form of grants, subsidies, or contracts. Interdependence theory holds that governments, rather than providing social services directly, build the capacity of nonprofits through outsourcing. Note, however, that there is never definite evidence of the transfer of revenue from

governments to nonprofits, and governments are just as likely to reduce the funds transferred to nonprofits in an attempt to increase tax revenues to counterbalance budget deficits. Therefore, we hypothesize that

**Ho2** Government size measured by total tax revenue is negatively related to nonprofit growth.

### Government Expenditure for Social Protection

Government expenditure for social protection has been used instead of government social spending in our analysis, primarily because the latter is used to create categories of dependent variables in combination with the expenditures of nonprofit institutions serving households (NPISHs) and thus leads to false positives in statistical hypothesis testing. Government expenditure for social protection includes funding for policies and programs designed to reduce vulnerabilities among citizens (UNRISD 2010). Programs for social protection intended to prevent and manage economic and social risks include unemployment, sickness, housing, disability, and social exclusion programs. Government expenditure for social protection may overlap with government social spending, but the concepts are different in material ways and thus are separately categorized by the OECD. Government expenditure for social protection is meant to be one of ten government expenditures classified according to the function, along with defense, economic affairs, education, environmental protection, general public services, health, housing and community amenities, public order and safety, and culture and religion. On the other hand, government social spending is meant to include expenditures involving either redistribution of resources or compulsory participation, such as public pension, public health insurance, and subsidies for low-income families. Expenditures for vocational training may not be counted as government expenditure for social protection, because vocational training is classified under the education function in government.

Government expenditure for social protection may either positively or negatively influence nonprofit growth (Weisbrod 1988). On the one hand, it may crowd out private donations and adversely affect nonprofit growth when replacing private philanthropy, thereby leaving little room for private intervention in the provision of social services. On the other hand, government expenditure for social protection may stimulate nonprofit growth in cases where government funds are used for the provision of social services. In line with the interdependence theory, we hypothesize that there is a positive relationship between government expenditure for social protection and nonprofit growth, because increasing government expenditures for



**Table 2** Individual study variables and data sources

Variables	Definitions	Data sources
NPISH_revenue	Combination of final consumption expenditures and earned income from fees and sales, both as a percentage of GDP	UN Statistics Division
Individual disposable income	Natural logarithm of gross household disposable income per capita, purchasing power parity US\$	OECD National Account Statistics
Tax revenue	Total tax revenue as a percentage of GDP	OECD Revenue Statistics
Gov expenditure	Gov expenditure for social protection as a percentage of GDP	OECD Social Expenditure Database
Pop. aging	Number of people aged 65 years and above as a percentage of the total population	World Development Indicator, World Bank
Urbanization	Number of people living in urban areas as a percentage of the total population	World Development Indicator, World Bank
Pop. heterogeneity	Size of the registered foreign population as a percentage of the total population	OECD Country Statistical Profiles
Female workforce	Number of females in the labor market as a percentage of the total female population aged 15 years and above	OECD Country Statistical Profiles

the establishment of welfare states is a widespread practice among OECD countries (Henriksen et al. 2012).

**Ho3** An increase in government expenditure for social protection is positively related to nonprofit growth.

## Data

A 275-point unbalanced panel dataset was collected from 20 OECD countries for the 21-year period between 1992 and 2012. Data were primarily drawn from three sources: the Statistics Division of the United Nations (UN), various databases in the OECD, and the collection of World Development Indicators from the World Bank. The 20 OECD countries included herein were selected for two reasons.<sup>2</sup> First, these countries have collected and retained economic and social data that are internationally comparable. Second, the data from only 20 countries contained both the dependent and independent variables in this study. The dependent and independent variables were collected in accordance with the System of National Accounts (SNA), which is “the internationally agreed standard set of recommendations on how to compile measures of economic activity” (United Nations Statistic Division 2013). Table 2 presents the individual variables and data sources considered in this study.

<sup>2</sup> The 20 OECD countries analyzed in this study were Austria, Belgium, the Czech Republic, Finland, France, Greece, Hungary, Italy, Japan, Luxembourg, the Netherlands, Norway, Portugal, South Korea, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United States.

## Dependent Variable

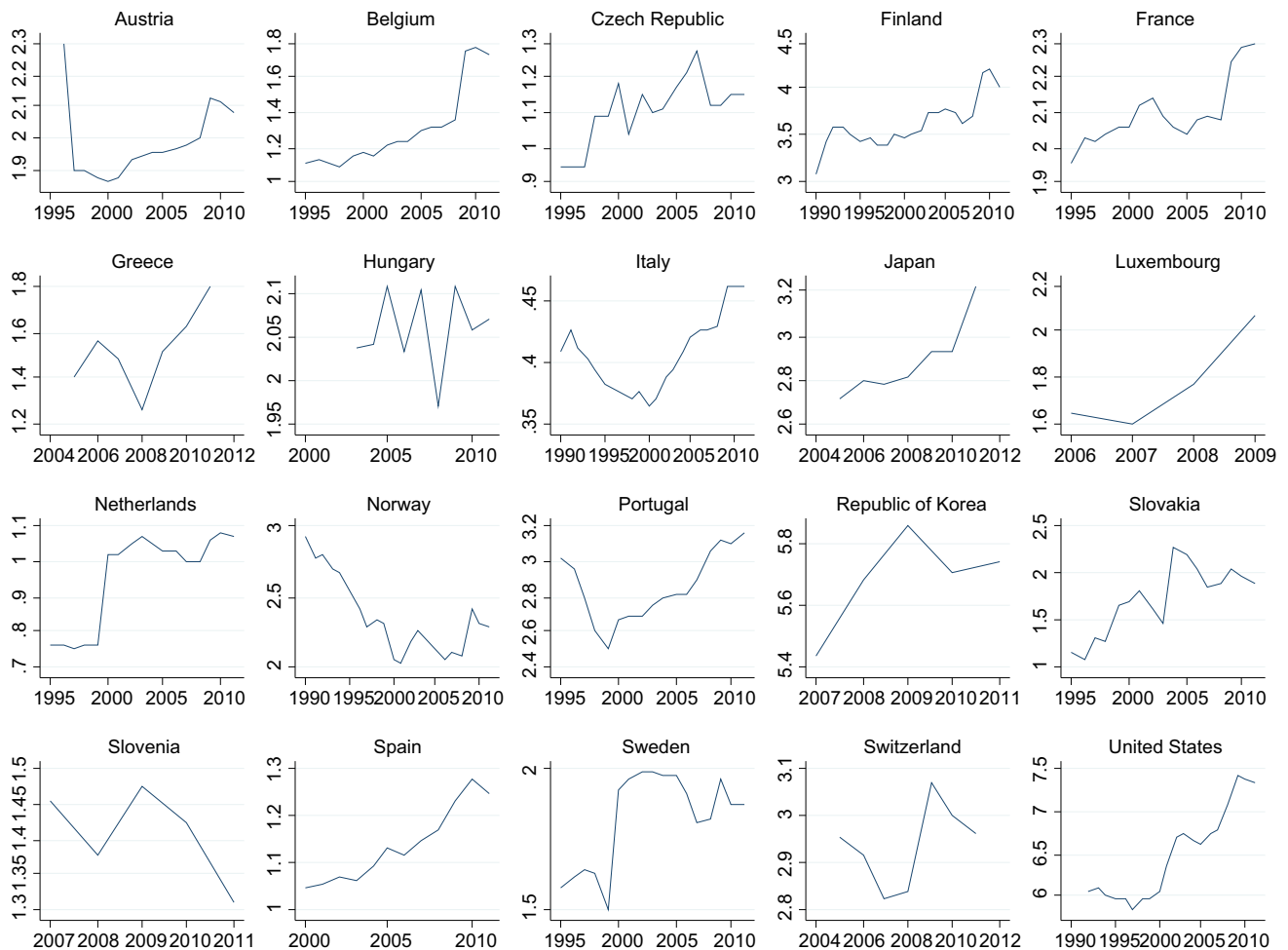
The dependent variable was the *total revenue of NPISHs as a percentage of the GDP*. Over the 21-year study period, 20 OECD countries spent an average of 2.3 % of their GDP on NPISH revenue, ranging from 0.36 to 7.43 % (see Table 3). However, the growth patterns of NPISH revenue as a percentage of the GDP differed over time. Figure 1 shows the variations in the growth patterns of NPISH revenues across the 20 OECD countries. Except in Norway and Slovenia, NPISH revenues tended to follow an upward growth curve over time in most OECD countries, although the 2008 economic crisis appeared to adversely affect NPISH revenues in a few European countries (e.g., France, Greece, and Hungary) for a short period of time. While the NPISH revenue of the United States was at the highest end of the growth curve, between 5.84 and 7.44 %, the NPISH revenue in Italy was at the lowest end of growth curve, between 0.36 and 0.46 %.

The SNA defines five types of nonprofit institutions, one of which is NPISHs—those that earn most of their revenue from households in the form of contributions and are not substantially financed by either the government or the market (United Nations Statistic Division 2003).<sup>3</sup>

<sup>3</sup> The SNA divides nonprofit institutions into five different sectors: The NPISH sector is the only sector that has “nonprofit” in its title. The other four sectors are (1) the nonfinancial corporations sector, which includes nonprofits such as universities or hospitals that receive most of their revenue from the sale of nonfinancial services, (2) the financial corporations sector, which includes some nonprofits, such as microfinance organizations, which are principally engaged in financial transactions, (3) the government sector, which includes government-sponsored nonprofits that receive most of their revenue from the government, and (4) the household sector, which includes some

**Table 3** Descriptive statistics of the study variables

Variable	Obs.	Mean	SD.	Min	Max
NPISH_revenue	275	2.2887	1.5428	0.3644	7.4390
Individual disposable income	275	16893.27	6146.41	4678.40	38612.53
Tax revenue	275	36.9251	6.4535	23.2000	49.0000
Gov expenditure	275	16.6925	4.8097	4.0055	28.3350
Pop. aging	275	15.6663	2.3208	10.0202	23.6685
Urbanization	275	74.8281	11.0395	49.9480	97.6870
Pop. heterogeneity	275	5.6862	5.1979	0.3262	34.3825
Female workforce	275	65.6393	8.4757	42.4000	79.0000



**Fig. 1** The Different Patterns of NPISH Growth between 1992 and 2012

Nonprofits that receive most of their revenues from governments, such as government-sponsored nonprofits, and those that are substantially financed by markets, such as universities, hospitals, and microfinance organizations, are

not included in the NPISH category. Many countries in Europe follow a 50 % market rule, that is, for a nonprofit to be classified as an NPISH, less than 50 % of its revenue must be covered by sales (Office for National Statistics 2014). Due to the less-than-50 % rule, the majority of the output from nonprofits is nonmarket, which allows households to receive goods and services for free or at below-

Footnote 3 continued  
nonprofits that rely only on volunteer input (United Nations Statistic Division 2003)

market prices. Examples of NPISH organizations include charities, professional societies, consumer associations, churches, and social and recreational groups (Office for National Statistics 2014).

The earned income from fees and sales includes those paid by both the government and the market. In this study, the measure of total NPISH revenue included the final consumption expenditures of nonprofit organizations on goods and services, together with whatever they received from market sales. In civil society organizations, the final consumption expenditures are equal to their revenues from nonprofit organizations (Salamon et al. 2004). Although the earned income shares of nonprofits vary across countries according to their own standards for what is considered income from sales, we could not exclude a significant portion of the NPISH revenue.

Although the United Nations defines NPISHs as non-market nonprofit institutions and establishes standards for some of their characteristics, each country still has its own standards for classifying them. For example, the United States categorizes the majority of nonprofits as NPISHs, including religious, welfare, health care, educational, recreational, and personal business organizations, but excludes some tax-exempt organizations, such as chambers of commerce, trade associations, and credit unions (Mead et al. 2003). Universities are considered NPISHs in England, but not in Canada (Office for National Statistics 2014). NPISHs are predominantly funded by private philanthropy, government support, and property income (HR Council for the Nonprofit Sector 2010), but they are also financed by membership dues, in-kind donations from corporations and governments, dividends, and other revenues not associated with providing services. These NPISHs represent just over a mere 20 % of the total number of nonprofits in Canada, but in other countries such as the United States, the proportion of NPISHs differs, because the activities performed by NPISHs differ significantly across countries (HR Council for the Nonprofit Sector 2010). Thus, our dependent variable significantly underestimated the total size of the nonprofit sector across countries.

Nonetheless, in this study, NPISH revenue was adopted as the measure of nonprofit growth for three reasons. First, NPISH revenues are designated to meet the demands of those in need for free or at below-market prices; thus, NPISHs reflect the fundamental mission of nonprofit organizations more closely than any of the other nonprofit institutions classified by the SNA. Second, NPISH revenues appear to be the only available internationally comparable longitudinal data. Even if this variable has underestimated sector size, it has done so systematically across all the countries considered in this study. Third, this dependent variable complements existing comparative

measures, such as the number of nonprofit organizations. Indeed, treating all organizations as equivalent is problematic when budget sizes differ (Matsunaga et al. 2012).

### Independent Variables

The independent variables were limited to three indicators of the overall state of the economy—individual disposable income, total tax revenue, and government expenditure for social protection—which were deemed to affect the size and development of the nonprofit sectors in the sample countries. The independent variables were drawn from several OECD databases between 1992 and 2012. Individual disposable income, measured by household disposable income per capita, was collected from OECD National Account Statistics. We transformed this measure by calculating the natural logarithm so that we could determine the proportional differences in the means of the dependent variable associated with proportional changes in the independent variables (Wooldridge 2013). Total tax revenue as a percentage of the GDP was collected from OECD Revenue Statistics. Finally, government expenditure for social protection as a percentage of the GDP was collected from the OECD Social Expenditure Database.

Table 3 presents the descriptive statistics of the study variables. The total revenue of NPISHs as a share of the GDP ranged from 0.36 % (Italy) to 7.44 % (United States), with an average of 2.29 %. The average individual disposable income was US \$16,893, with Slovakia having the smallest value (US \$4678) and the United States having the largest (US \$38,612). The average of the total tax revenue was 36.9 % of the GDP, with South Korea having the smallest value (23.2 %) and Sweden having the largest (49.0 %). Government expenditure for social protection as a share of the GDP varied significantly, ranging from 4 % (South Korea) to 28.3 % (Finland), with an average of 16.7 %.

### Control Variables

For three reasons, four aspects of sociodemographic data were controlled in this study: population aging, urbanization, population heterogeneity, and the size of the female workforce. First, nonprofit growth is affected by the dynamics of certain underlying social characteristics that create a demand for nonprofit services, such as daycare for young children, elder care, and family counseling. Second, the government failure theory postulates that heterogeneous demands drawn from various sociodemographic characteristics may not be adequately met by the market or government sectors (Grønbjerg and Paarlberg 2001). Third, key economic indicators may well explain service-oriented nonprofit organizations, but they may fail to account for



**Table 4** Countries by nonprofit regime type (as classified in this study)

Nonprofit scale (total revenue of NPISHs)	Government social spending	
	Low	High
Large	<i>Liberal</i> Japan, South Korea, Switzerland, US	<i>Corporatist</i> Finland, Portugal
Small	<i>Statist</i> the Czech Republic, Luxembourg, Norway, Slovakia, Slovenia	<i>Social Democratic</i> Austria, Belgium, France, Greece, Hungary, Italy, Spain, Sweden, the Netherlands

important aspects of expressive nonprofit organizations in which economic activities are limited (Kim 2008).

We expected that population aging would increase the demand for nonprofit services such as elder care and vocational training. Based on World Bank data about World Development Indicators (WDI), population aging was measured herein as the number of people aged 65 years and above as a percentage of the total population. Also based on World Bank WDI data, urbanization was measured as the number of people living in urban areas as a percentage of the total population. We expected a positive impact of urbanization on nonprofit growth, in part because a greater number of educated people would be living in urban areas with a higher number of social issues, such as poverty. Based on the OECD Country Statistical Profiles, population heterogeneity was measured herein by the size of the registered foreign population as a percentage of the total population. We expected a positive impact of increasing population heterogeneity on nonprofit growth, due to increasing demands for new social services (e.g., multicultural education) resulting from the diversity. Finally, the growing participation of females in the labor market workforce is widespread across the world and has increased the demand for nonprofit services such as day-care, elder care, and family counseling. Based on data from the OECD Country Statistical Profiles, we measured the size of the female workforce in the labor market as a percentage of the total female population aged 15 years or above.

## Statistical Methods

Panel data analysis was performed to test the theories of nonprofit growth, with a focus on the impacts of the state of the economy on the size and development of the nonprofit sector in various countries. Specifically, we conducted two steps of analysis.

First, a fixed effects panel regression was performed for all 20 countries, which accounted for the unobserved heterogeneity of the individual countries. Many of the

existing cross-sectional studies of nonprofit growth are problematic because they do not account for individual heterogeneity or unobserved potential sources of bias (Lecy and Van Slyke 2013). The fixed effects model enabled us to control for variables with time-invariant, unobserved fixed effects specific to the individual countries, such as national policies, government regulations, and civil society maturity (Wooldridge 2013). Fixed effects models remove these time-invariant characteristics from the individual countries in order to estimate the net effects of predictors on an outcome variable (Green 2008). A significant result of the F-test (404.27,  $p < 0.01$ ) confirmed that the pooled ordinary least squares method was not appropriate due to the unique characteristics of the sample countries. Also, significant results of the Hausman test (24.84,  $p < 0.01$ ) supported a fixed effects model over a random effects model, as the unobserved characteristics of one country may not correlate with the unobserved characteristics of other countries.

Second, the fixed effects model still may have provided insufficient coefficient estimates, because the model assumed similar effects of unobserved heterogeneity on the state of the economy in all the sample countries. Realistically, each country has its own social and historical context, which affects its economic status. Following the social origins theory, therefore, we identified four types of nonprofit regimes for these countries using two dimensions—total NPISH revenue and government social spending—and converted them into dummy variables. Table 4 shows the list of the countries by regime type. Note that while Salamon et al. (2000) used cross-sectional country data from 1995, we used 21 years of panel data and subtracted the yearly average scores of individual countries from the actual values per year to compute z-scores.<sup>4</sup> As a result, the regression coefficients could still be estimated with a fixed effects model, because dummy variables for each regime

<sup>4</sup> The following formula demonstrates how the actual values in each year were converted to z-scores: the mean scores of the 20 countries for a given year were subtracted from the actual values, and this difference was divided by the standard deviation.

$$Z_{np1} = \frac{NPISH_1 - \text{mean}(NPISH)}{sd(NPISH)}, Z_{gss1} = \frac{GSS_1 - \text{Mean}(GSS)}{sd(GSS)}$$

type were created from time-variant yearly data. That is, a country in a liberal regime in a particular year could have been considered a social democratic regime the next year due to this time-variant yearly data.

The analysis included interaction terms for the predictors and regime-type dummy variables so that the differential effects of individual economic indicators on nonprofit growth could be examined across regime types. Simultaneously including predictors, regime-type dummies, and interaction terms in the regression equation raised the problem of multicollinearity. Therefore, we created five separate regression models wherein nonprofit growth was predicted based on a combination of an economic indicator, regime-type dummies using the statist regime as a reference group, and interaction terms of the individual economic indicator and regime-type dummies.<sup>5</sup>

The results of this analysis are presented in Table 5. Model 1 was a fixed effects model with all 20 countries combined. Model 2 estimated the size of the nonprofit sector under each regime type based on differences in the constants of the regression equations. Models 3–5 demonstrated the differential impacts of the individual economic indicators on nonprofit growth across regime types.

## Results

The fixed-effects models presented in Table 5 demonstrate the effects of economic indicators on nonprofit growth in both combined and separate models classified according to the regime type. Model 1 did not account for regime type and was controlled for the unobserved heterogeneity of the selected 20 countries. The results suggest that all three economic indicators significantly influenced the size of the nonprofit sector in all 20 countries. As expected, private philanthropy (measured by individual disposable income) had a positive relationship with nonprofit growth over the 21-year period. A 1 % increase in the individual disposable income appeared to contribute to nonprofit growth by approximately 0.24 % points, thereby confirming hypothesis 1. Consistent with hypothesis 2, a 1 % point increase in tax revenue as a share of the GDP reduced the NPISH revenue by more than 0.07 % points, while a 1 % point

increase in government expenditure for social protection appeared to increase the NPISH revenue by 0.05 % points, confirming hypothesis 3.

The positive effect of private philanthropy on nonprofit growth seems to support the government failure theory, which postulates that revenue generated from private philanthropy compensates for the failure of the government to meet the heterogeneous needs of a society. As a result, the size of the nonprofit sector increases in proportion to the level of private philanthropy when the government size is held constant. The negative effect of total tax revenue on nonprofit growth also seems to support the government failure theory. That is, as government size (measured by tax revenue) increases, the size of the nonprofit sector decreases, because governments, rather than nonprofits, are able to meet certain societal demands. However, the positive effect of government expenditure for social protection seems to be consistent with interdependence theory. Interdependence theory suggests that a government tries to establish the capacity to provide social services by outsourcing to nonprofit organizations. As a result, government capacity for the provision of social services tends to be inversely related to the size of the nonprofit sector, while government funding is positively related to it. These seemingly contradictory findings are consistent with those of previous studies that have not reached a consensus about the government–nonprofit relationship.

Model 2 estimated the sizes of nonprofit sectors across regime types based on differences in the constants of the regression equations. In the 20 countries examined, liberal regimes appeared to have the largest nonprofit sectors, followed by corporatist, social democratic, and statist regimes, when economic and sociodemographic variables were controlled.

Models 3–5 demonstrated the effects of the individual economic indicators on the total revenues of NPISHs. The results indicate that the economic effects on nonprofit growth were not constant; instead, they varied significantly across regime types when sociodemographic variables were held constant. Model 3 demonstrated that private philanthropy (measured by individual disposable income) seemed to significantly increase the NPISH revenues across the regime types, despite being the least important source of nonprofit revenue (Anheier 2014). However, the proportion of private philanthropy resulting from individual donations (as opposed to donations from corporations and foundations) can vary significantly across countries. For example, more than 70 % of private philanthropy comes from individuals in the United States, but corporations are the major private givers (approximately 60 %) in South Korea.

As seen in Model 4, total tax revenue was inversely related to the size of the nonprofit sector in general. While

<sup>5</sup> All the models presented in Table 5 were developed with a mean centering technique as a way to reduce the multicollinearity, which was drawn from a multiplicative function with the regime-type dummies. We greatly reduced the multicollinearity by centering these variables before forming the multiplicative function in order to minimize constants, holding the coefficients of interaction terms (Aiken and West 1991; Smith and Sasaki 1979). After the initial models were transformed to mean-centered models, the highest average value of the variance inflation factor (VIF) was 5.18 in Model 4, which was within the acceptable range (Wooldridge 2013, 94).

**Table 5** Regression Results

Variables	Model 1 Basic FE	Model 2 Dummy	Model 3 x-Income	Model 4 x-Tax	Model 5 x-Gov Social
log (Dis. Income)	0.2396*** (0.0915)	0.3534*** (0.0899)	0.1655* (0.0987)	0.3839*** (0.0857)	0.3933*** (0.0906)
Tax revenue	−0.0760*** (0.0085)	−0.0706*** (0.0082)	−0.0740*** (0.0078)	−0.0733*** (0.0087)	−0.0684*** (0.0083)
Gov expenditure	0.0502*** (0.0078)	0.0560*** (0.0080)	0.0527*** (0.0079)	0.0601*** (0.0075)	0.0443*** (0.0151)
Liberal		0.4044*** (0.0757)	0.6142*** (0.0808)	0.6020*** (0.0832)	0.5380*** (0.0881)
Corporatist		0.2203*** (0.0618)	0.2180*** (0.0583)	0.5379*** (0.0789)	0.2843*** (0.0722)
Social demo		0.0541 (0.0447)	0.0570 (0.0423)	0.0126 (0.0421)	0.0593 (0.0467)
xL_dis-income			0.7900*** (0.1403)		
xL_tax-rev				−0.0504*** (0.0131)	
xL_gov-exp					0.0497** (0.0233)
xC_dis-income			0.2784** (0.1350)		
xC_tax-rev				−0.0476*** (0.0128)	
xC_gov-exp					−0.0026 (0.0187)
xS_dis-income			0.0114 (0.1034)		
xS_tax-rev				0.0370*** (0.0097)	
xS_gov-exp					0.0241 (0.0180)
Pop-aging	0.0469*** (0.0172)	0.0227 (0.0172)	0.0215 (0.0171)	−0.0102 (0.0185)	−0.0001 (0.0188)
Urban_pop	0.0165* (0.0088)	0.0270*** (0.0089)	0.0166* (0.0088)	0.0201** (0.0084)	0.0257*** (0.0090)
Pop_hetero	0.0026 (0.0059)	0.0048 (0.0057)	0.0083 (0.0055)	0.0030 (0.0053)	0.0069 (0.0058)
Female_work	−0.0201*** (0.0060)	−0.0241*** (0.0060)	−0.0163** (0.0064)	−0.0138** (0.0059)	−0.0236*** (0.0061)
Constant	1.6214*** (0.6167)	1.3328** (0.5940)	1.5352*** (0.5643)	1.5215*** (0.5643)	1.7389*** (0.6181)
Observations	275	275	275	275	275
R-squared	0.4985	0.5525	0.6079	0.6197	0.5676
Number of countries	20	20	20	20	20

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ , standard errors in parentheses

an increase in tax revenue had a strong negative effect on the size of the nonprofit sector in liberal and corporatist regimes, it had a weak negative effect in social democratic regimes.<sup>6</sup> The negative relationship between tax revenue and the size of the nonprofit sector in liberal, corporatist, and even social democratic regimes may suggest that government intervention into the welfare capacity has increased dramatically within the last few decades in virtually all the sample countries. This could be due in part to the direct provision of social services by the government, a role which traditionally has been fulfilled by the nonprofit sector in those countries (Henriksen et al. 2012). In social democratic regimes, the weak negative relationship between tax revenue and the nonprofit sector suggests that a portion of tax revenue was transferred to the nonprofit sector through outsourcing, but that nonprofit services were more broadly provided within government-sponsored welfare programs.

Model 5 provided additional evidence of increasing government intervention in the welfare service, which has traditionally been an area of the nonprofit sector. Model 5 revealed that the size of government expenditure for social protection was positively related to nonprofit growth across all regime types in general, and especially in liberal regimes. Examples abound: many social service programs in the U.S. such as health care, at-risk youth, and community services are supported by Medicaid, TANF-related funding, and other financial support programs in the government. The Danish government has also initiated a number of social development programs run by voluntary organizations (Henriksen et al. 2012).

Three sociodemographic variables—population aging, urban population, and the size of the female workforce—appeared to impact nonprofit growth significantly. Population aging seemed to be positively related to the size of the nonprofit sector regardless of regime type, presumably because a growing elderly population increases the number of new demands for nonprofit services such as elder care, vocational training, and family counseling. In contrast, an increasing female workforce seemed to significantly reduce the size of the nonprofit sector across all regime types. It may be that women, who have traditionally been actively involved in nonprofit activities, lose the time they have to work for nonprofit organizations by joining the labor market. Finally, urbanization also appeared to provide fertile soil for nonprofit development across the sample countries.

<sup>6</sup> Although the interaction term of the social democratic regime and tax revenue had a significantly positive coefficient (0.0370), its total effect was  $-0.0363$  ( $-0.0733 + 0.0370$ ), which is a relatively weak negative

## Conclusions

This research has taken on the challenge of supplementing the existing studies on nonprofit growth, which have largely used either case-based analyses or cross-sectional data, leaving many important time-varying issues unexplained. Also, the lessons learned from economic theories have been largely country specific, so it has been difficult to assess the current state of knowledge about the nonprofit sector beyond national boundaries. In response to the gap in this field, we used internationally comparable longitudinal data to examine the cross-national relationship between the overall state of the economy and nonprofit growth. A 275-point unbalanced panel dataset was collected from 20 OECD countries over a 21-year period. The results suggest that the selected economic indicators have significant effects on nonprofit growth, which vary significantly across regime types.

When the controlled unobserved characteristics of individual countries were used in a fixed effects model, private philanthropy (measured by individual disposable income) had a strong positive impact on the size of the nonprofit sector. This suggests that private philanthropy, although the least important source of nonprofit revenue, continues to support nonprofit activities when the government fails to meet heterogeneous societal needs that do not earn majority support. However, the positive effect of government expenditure for social protection seems to suggest that government–nonprofit relationships are not necessarily in conflict, but complementary. The government views nonprofits as a strategic partner in the realization of public goals and provides financial support to nonprofits through outsourcing. Thus, government capacity for social services (measured by tax revenue) tends to be inversely related to the size of the nonprofit sector, while government expenditure for social protection tends to be positively related to it.

The contradictory results of our analysis presented in Table 5 come in part from limitations of the fixed effects model (Model 1) with all 20 countries combined. Each country has its own social, economic, and historical context; thus, the same economic indicators may have very different effects on nonprofit growth, depending on the unique circumstances of the individual country. Model 2 presented in Table 5 confirms the variability of nonprofit size across regime types, in which liberal regimes appear to have the largest nonprofit sectors, followed by corporatist, social democratic, and statist regimes. This result implies the usefulness of social origins theory, which accounts for important discrepancies that are otherwise unexplained by economic theories. Liberal regime countries, such as the US, have large and active nonprofit sectors, which are

drawn in part from the tradition of strong civic participation and a penchant for relying more on nonprofit services than on government-led welfare provisions. In contrast, social democratic and statist regimes are paternalistic, pushing for extensive, nonliberal welfare states, while limiting the role of service-providing nonprofit organizations.

Nonetheless, care must be taken to interpret the results of the data analysis based on the Esping-Anderson (1990) classification. The Netherlands, for example, falls under the social democratic regime type as shown in Table 4, although the country has been known for having one of the largest nonprofit sectors in the world. This discrepancy is due to our use of total NPISH revenue as the dependent measure, as NPISHs represent only a small fraction of the nonprofit institutions classified by the SNA. Another reason for the discrepancy is that the work of Salamon et al. (2000) included both paid employees and volunteers. The UN data did not contain volunteers, who have traditionally been active in the Netherlands. Sweden also ranks at the low end of nonprofit size as shown in Table 4. This may be because the NPISH data have grossly overlooked many expressive, recreational, and sports programs that have been run predominantly by volunteers in Scandinavian countries (Salamon et al. 2004).

These results have important theoretical and practical implications for governments and nonprofit managers. Government failure and interdependence theories provide a useful first step in explaining important variations in nonprofit growth worldwide. However, these economic-based explanations are limited by not accounting for the distinct patterns of historical development in individual countries. Using an internationally comparable panel dataset, we have found that social origins theory is a useful addition that helps explain cross-national variations in nonprofit growth. Importantly, the interplay among the government, private philanthropy, and the nonprofit sector is dynamic, and its effect on economic indicators varies across nonprofit regime types when sociodemographic variables are controlled. Given the heterogeneous patterns of nonprofit growth, it appears that no dominant theory can explain the variation in the nonprofit sector across countries, and that no particular regime type should be treated as a preferred form of governance to ensure the size and growth of the nonprofit sector. When sociodemographic conditions are controlled, the effects of particular economic indicators on nonprofit growth differ, depending on the regime types and the social and historical contexts of different countries.

It is worth noting that the “regime approach” of this study is just one of several ways to understand the growth of nonprofit sectors worldwide. Henriksen et al. (2012) challenged the regime approach (originally proposed by Esping-Anderson in Esping-Anderson 1990), claiming that

even though nonprofits in different countries have very different government–nonprofit relationships and different roles in providing social services, they are in many ways seeking the same market solutions, as well as government funds to survive in the competitive social service market. This marketization of welfare services has become increasingly popular, even in Nordic countries. Meagher et al. (2013) found that Nordic countries, such as Sweden, Finland, and Norway, have increasingly adopted for-profit modes for eldercare services, such as competitive tendering and the user choice model. This trend toward “convergence” is widespread and blurs the boundaries of different regime types. For example, nonprofits in the United States no longer fall under the liberalist regime, because US nonprofits not only rely heavily on government grants and subsidies but also marketize many of their services to gain strength to compete with for-profit interventions in terms of social service delivery.

Indeed, this convergence has taken place in many countries, primarily due to limited private philanthropy and fierce competition in the nonprofit service market (Meagher et al. 2013). Nonetheless, nontrivial differences are still apparent among regime types, as nonprofits across countries react to social, economic, and historical developments in distinctive ways. Qualitative research is no doubt a useful approach to analyzing the dynamics of the development of the nonprofit sector in each country. However, quantitative research should be equally valued as a way to cross-validate research findings. Unfortunately, our dependent variable significantly underestimated the size of the nonprofit sector across countries, and this article did not include sufficient information about the different social origins of the sample countries. Future research should refine these basic research questions and test them using solid empirical data to gain a superior understanding of the determinants of nonprofit sector growth, together with the associated societal implications.

#### Compliance with Ethical Standards

**Conflict of interest** This study has not received funding, and the authors have no conflicts of interest.

**Human and Animal Participants** The authors declare that this study has not involved human participants and/or animals. Therefore, this study fully complies with ethical responsibilities required by the journal.

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