

# A Century of Nonprofit Studies: Scaling the Knowledge of the Field

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**Abstract** This empirical study examines knowledge production between 1925 and 2015 in nonprofit and philanthropic studies from quantitative and thematic perspectives. Quantitative results suggest that scholars in this field have been actively generating a considerable amount of literature and a solid intellectual base for developing this field toward a new discipline. Thematic analyses suggest that knowledge production in this field is also growing in cohesion—several main themes have been formed and actively advanced since 1980s, and the study of volunteering can be identified as a unique core theme of this field. The lack of geographic and cultural diversity is a critical challenge for advancing nonprofit studies. New paradigms are needed for developing this research field and mitigating the tension between academia and practice. Methodological and pedagogical implications, limitations, and future studies are discussed.

**Keywords** Nonprofit and philanthropic studies · Network analysis · Knowledge production · Paradigm shift · Science mapping

## Introduction

Although the existence of voluntary and philanthropic organizations can date back to as early as the seventeenth century, the study of nonprofit organizations and philanthropy only begins in the 1890s (Hall 1999, p. 522), and the “inventing of the nonprofit sector” is only a recent endeavor from the mid-1970s (Hall 2006, p. 54). The fundamental theories of nonprofit organizations and philanthropy were produced by scholars from various mainstream disciplines, for example, history, sociology, and economics (Hall 1999, p. 523). Although the Filer Commission brought leading scholars together and construed nonprofit organizations as part of a coherent and necessary sector of society (Hall 2006, pp. 54–55), scholars were still skeptical about the academic identity and future development of this field. The scholarship on nonprofit studies was produced by researchers from other mainstream disciplines, and it was hard to attract first-rate scholars and graduate students into this field (Katz 1999, p. 78). As an emerging interdisciplinary research field, nonprofit and philanthropic studies require a large developing body of theoretical and empirical knowledge to support its development, therefore emphasizing the importance of knowledge production in this research field.

This study examines “knowledge production” from two perspectives: the quantity of scholarly activities and the cohesion of scholarship. The former includes, for example, the number of journal articles published, the number of authors and institutions working in this research field, and the productivity of researchers. The latter examines whether the literature has formed several interconnected research themes that can distinguish this research field—a prerequisite for forming its disciplinary identity. Few scholars approached this research topic from either the

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former or the latter perspective (Brass et al. 2018; Brudney and Durden 1993; Bushouse and Sowa 2012; Jackson et al. 2014; Shier and Handy 2014). But there needs to be a more comprehensive analysis regarding the dataset and methodology.

As a study of knowledge production, this paper contributes from various theoretical and practical perspectives. Theoretically, understanding the main research topics and trends can serve as an “academic compass” for scholars and is useful for setting up research agendas, especially for emerging scholars. Less developed topics and theories could be advanced if scholars were aware of the gaps. It is also helpful for mitigating the discrepancies between theory and practice (Bushouse and Sowa 2012, p. 499). In terms of educational significance, studies of knowledge production can provide students with “a map of knowledge,” helping them to better understand and navigate this field. This study is also useful for instructors in developing syllabi that cover the main topics in the field. Moreover, studies of knowledge production can provide more evidence for advancing this research area toward a more established discipline, allowing for broader representation of nonprofit and philanthropic studies departments or schools in universities.

Figure 1 illustrates the structure of this paper. The method section introduces datasets, data preprocessing procedures, and methods of analysis. The result section presents findings in two subsections. By using an innovative and large dataset recording the scholarship published in 19 journals between 1925 and 2015 worldwide, the first subsection describes the general trends of development of this research field in the last century, mainly supporting the quantitative aspect of knowledge production. The second subsection is a detailed thematic analysis of the literature published between 1986 and 2015, mainly supporting the knowledge cohesion. Combining the two subsections, this paper provides empirical evidence for the institutionalization of this research field. We finally review the results and present some concluding remarks.

## Method

This study is an empirical research project which uses network analysis and science mapping to model the scholarship produced in the field of nonprofit and philanthropic studies. These research methods are very helpful for understanding the evolution and structure of a research field (Adams et al. 2016; Hu et al. 2015; Korff et al. 2015). Network analysis is an innovative research method that has been receiving more academic attention; it underpins some basic concepts in science mapping. Rather than giving a comprehensive introduction to each method, we only

introduce key concepts employed in this study. We recommend some reviews for a deeper understanding of these methods (Börner et al. 2015; Carrington and Scott 2011; Noyons 2001).

## Key Concepts in Network Analysis

A *network* is a graph consisting of *nodes* (or vertices) and *edges* (or ties). The nodes represent entities of analysis, and the edges indicate their relationships (e.g., friend, co-worker, graduate from the same school, etc.). Network analysis can be applied to different fields and is very powerful to study at a specific level of analysis—the network level, and a specific type of data—the relational data (Carrington and Scott 2011).

### *Network Density*

This network profile measures the connectedness among nodes in a network, that is, the actual edges in proportion to all possible edges (Hanneman and Riddle 2011). Nodes in a higher-density network tend to connect with each other more often, and information can be diffused more quickly in such networks.

### *Attachment Probability*

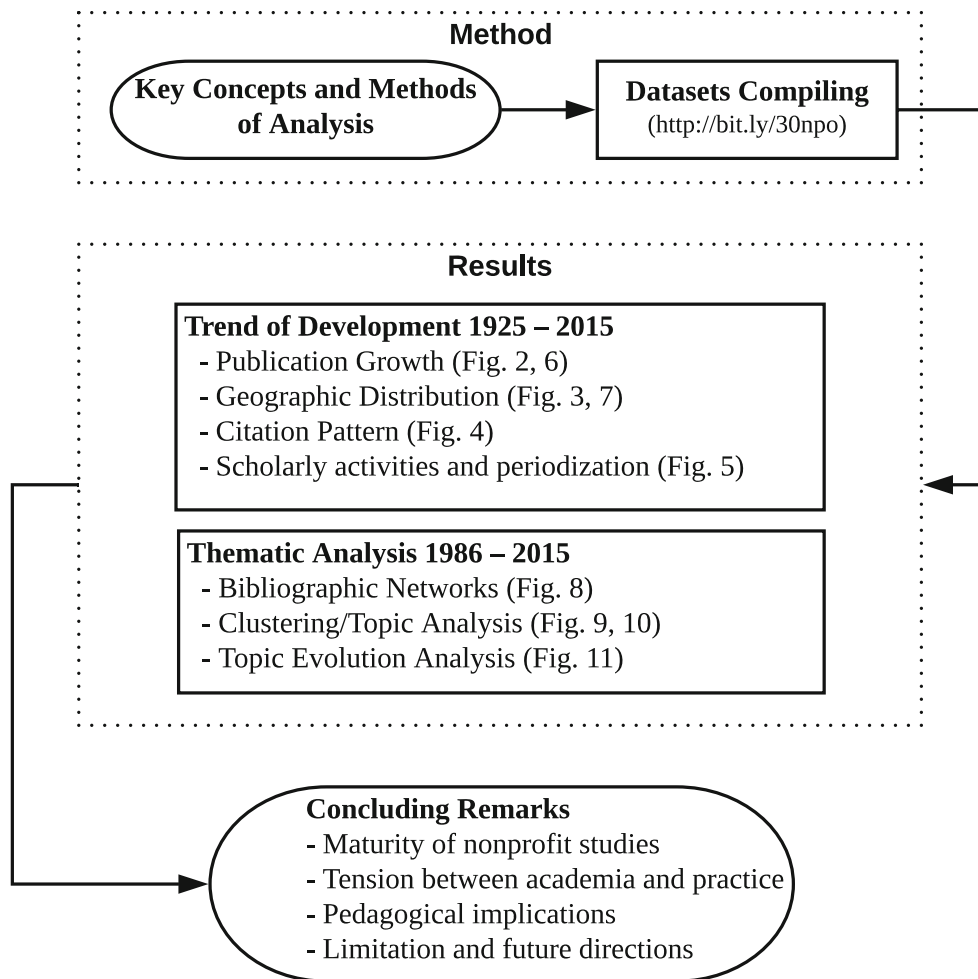
This node profile measures the node’s ability to accrue new edges in an evolving network. Given a graph in state  $t$ , the node  $i$  has  $d$  edges, and in state  $t + 1$ ,  $n$  new edges are attached to node  $i$ , and a total of  $f$  new edges are added to the network in state  $t + 1$ ; therefore, the attachment probability of node  $i$  in state  $t$  is calculated as  $\frac{n}{f}$  (Peirson 2016). This metric can help us understand how network and nodes of interest evolve over time.

## Key Concepts in Science Mapping

*Science mapping* explains “how disciplines, fields, specialties, and individual papers or authors are related to one another” (Small 1999, p. 799). Numerous terms are used interchangeably by scholars to describe this method (e.g., Science of Science and Scientometrics). We use “science mapping” throughout.

### *Research Front and Intellectual Base*

The term *research front* was first introduced in 1965 to indicate a body of recently active scientific literature (Price 1965, p. 512). The *intellectual base* was also suggested: Some published articles are constantly cited and seem to be a part of an “eternal record of human knowledge” (Price



**Fig. 1** Workflow and paper structure

1965, p. 515). Since then, the two concepts have been put forward by numerous scholars (e.g., Morris et al. 2003; Persson 1994). One of the most popular and recent definitions of research front is “emerging thematic trends and surges of new topics” (Chen 2006, p. 362), and *intellectual base* is defined as “citation trails of the research front in the literature” that can “change over time along with the movement of its research front” (Chen 2006, p. 361).

#### *Networks and Science Mapping*

Research methods of science mapping usually include the analysis of co-author networks, co-citation networks, bibliographic coupling networks, and direct citation networks. In a *co-author network*, the nodes represent authors, and two nodes are connected if they have co-authored at least one paper. A *co-citation network* illustrates how previously published papers are cited by the academic community. Nodes in this network represent papers, and two papers are connected if they are both cited by a third paper. Co-

citations suggest some thematic similarities between the two papers. A *bibliographic coupling network* measures how many references are shared by two articles. Nodes in this network represent papers, and two papers are connected if they cite the same references. In a *direct citation network*, nodes represent papers, and edges represent direct citations from one paper to another.

The selection of analytical methods depends on the analysis goals. For mapping current papers (i.e., the research front), researchers may use bibliographic coupling only. If the goal is to map classic papers from the current perspective (i.e., discovering the intellectual base), co-citation is more reliable and can discover the “core” of earlier literature in a particular academic specialty (Small 1973, pp. 267–268, 1999, p. 802). Science mapping techniques and software packages are mainly built on these concepts and methods (Cobo et al. 2011).

## Datasets

### Dataset 1: Describing the Overall Trends, 1925–2015

When describing trends, the dataset should be as comprehensive as possible. We followed these steps to generate a collection of literature records from Scopus, the largest database of peer-reviewed publications that includes scientific journals, books, and conference proceedings (Elsevier 2017):

1. Identify a list of core journals in the field. Smith (2013) identified 61 core journals serving this field, defined by having “relevant terms like *civil society*, *third sector*, *social economy*, *philanthropy*, *social movements*, *non-profit organizations*, *participation*, *engagement*, and so forth, in their titles or subtitles” (p. 654).
2. Retrieve all the papers published in the core journals indexed by Scopus. The 61 core journals are meant to be comprehensive, but they deviate greatly on quality. For example, some of the journals have no International Standard Serial Number (ISSN), such as *Giving–Thematic Issues in Philanthropy and Social Innovation* and the *Journal of China Philanthropy Studies*. Some of the journals publish irregularly; for example, the *3C media: Journal of Community, Citizen’s and Third Sector Media* has no publication between 2013 and 2015. This step narrowed down the number of journals to 19.
3. We only included: articles, articles in press, conference papers, reviews, and short surveys. Editorials, book reviews, and erratum were excluded.

The three steps generated a collection of 12,016 bibliographic records from 19 journals published between 1925 and 2015 (both ends included) worldwide. Each bibliographic record consists of various data fields including the title of the *citing article*, author’s name, publication year, publication title, and the article’s *cited references*. (These terms will be used throughout this paper to ensure consistency.) The cited references have 311,212 entries including journal articles, books, dissertations, and technical reports, etc.

Dataset 1 is possibly the most comprehensive one of its kind to date. First, unlike studies that only use articles published in a specific journal, this dataset consists of all important journals identified by scholars. Second, although we excluded some journals, this was necessary to ensure the quality of data. Third, literature published elsewhere and in other forms (e.g., books or book chapters) is also included because the 311,212 cited references include publications other than journal articles (e.g., books, dissertations, and technical reports), thus expanding our analysis to various types of references.

### Dataset 2: Deeper Thematic Analysis, 1986–2015

For thematic analysis, the dataset must include the “core” scholarly works of nonprofit and philanthropic studies. It is important to use journals dedicatedly serving this field as our data source; otherwise, the uniqueness and identity of this area can be diluted by other disciplines. A general consensus is that *Nonprofit Management and Leadership (NML)*, *Nonprofit and Voluntary Sector Quarterly (NVSQ)*, and *Voluntas* are the only three journals indexed by the Social Science Citation Index (SSCI) and exclusively serving this field (Bernick and Krueger 2010; Brudney and Herman 2004). We therefore use literature published in these three journals between 1986 and 2015 as the dataset for a deeper thematic analysis.

We followed similar steps as aforementioned to generate Dataset 2 from Scopus and Web of Science. Records from Scopus were converted into the Web of Science standard format because the two databases were in different formats. There was a loss while converting, and the converting rate of this study (89%) is good for analysis because: (1) it is close to the “very decent successful rate,” which is 95% (Chen 2014, p. 66), and (2) the records not converted tended to be references that were less cited.

Similar to Dataset 1, each bibliographic record of Dataset 2 consists of various data fields including the title of *citing article*, author’s name, publication year, publication name, and the article’s *cited references*. The cited references also include various types of academic publications or technical reports.

Overall, Dataset 2 consists of 2848 bibliographical records spanning from 1986 to 2015, and 51,945 cited references in various types. See Table 1 for dataset composition.

Because of the limitation of databases, the records from 1989 are missing, and the *NML*’s data are incomplete. For the missing records of 1989, we expect there should be minor influences on our analysis because we are mainly using co-citation analysis—the literature published in 1989 may be cited by the papers published later and therefore may be included in the analysis. The incompleteness of the *NML*’s data may undermine the clustering analysis—some of the topics that are practice-oriented may be less represented.

### Data Preprocessing for Thematic Analysis

Data retrieved from bibliographic databases contain errors and require preprocessing. Three aspects need attention: duplicate records, time slicing, and data reduction (Cobo et al. 2011, pp. 1384–1385). Because of page limits, detailed methodology of data preprocessing is posted online (<http://bit.ly/30npo>).

**Table 1** Dataset for analysis

Journals	NVSQ/JVAR	Voluntas	NML
Range of total publication	1972:1(1)–2016:45(3)	1990:1(1)–2016:27(3)	1990:1(1)–2016:27(3)
Range of records in dataset	1972:1(1)–2016:45(3)	1990:1(1)–2016:27(3)	1991:2(1)–1995:6(1) 2009:19(3)–2016:26(3)
# of records in dataset	1730	900	218

*NML* Nonprofit and Management Leadership; *NVSQ/JVAR* Nonprofit and Voluntary Sector Quarterly/ Journal of voluntary action research. The data of *NML* in 1990 and between 1996 and 2008 are not available from the two data sources (i.e., Web of Science and Scopus)

**Duplicate Records** Duplicate records are common errors in raw data when the same cited reference may be recorded differently. For example, the same article may be cited as “ABZUG R, 1996, NONPROFIT MANAGEMENT, V7, P101” and “ABZUG R, 1996, NONPROFIT MANAGEMENT AND LEADERSHIP, V7, P101-111.” In this situation, the two records will be erroneously treated as two different articles. Approximately 400 duplicate records were corrected (about 13% of all cited references in the final co-citation network).

**Time Slicing** Time slicing divides the dataset into different subperiods. It is necessary for longitudinal studies and useful for analyzing the evolution of a research field. A bibliographical network can be constructed for each period, and the networks are the “snapshots” of the periods for analysis. Scholars can trace the changes of these networks to understand the knowledge evolution.

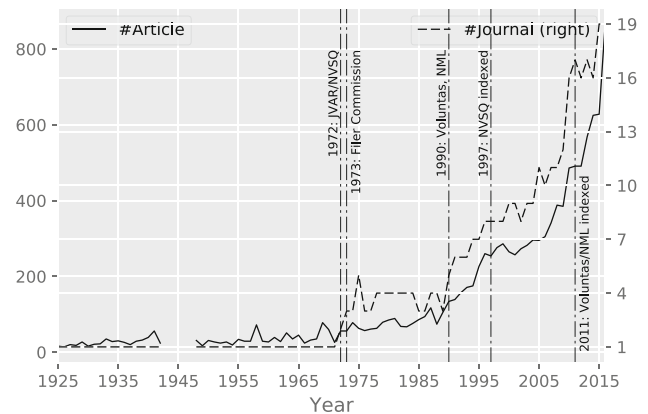
**Data Reduction** Scholars typically use data reduction methods to focus on the most important data. This is necessary to discover patterns and save computational resources, especially in network analysis. For example, they may only include the most frequently cited articles or journals with high impact factors to keep their analysis focused on the most influential literature (Cobo et al. 2011, p. 1385).

## Results

### Describing the Overall Trends, 1925–2015

#### Productivity of Scholarly Activities

Figure 2 illustrates the number of publications and core journals in this field from 1925 to 2015. Before 1972, the *Annals of Public and Cooperative Economics* was the only journal in this field and only produced about 30 papers per year on average. A series of events after 1972 facilitated the publications: (1) In 1972, the *Journal of Voluntary Action Research (JVAR)*, the predecessor of *NVSQ*, became



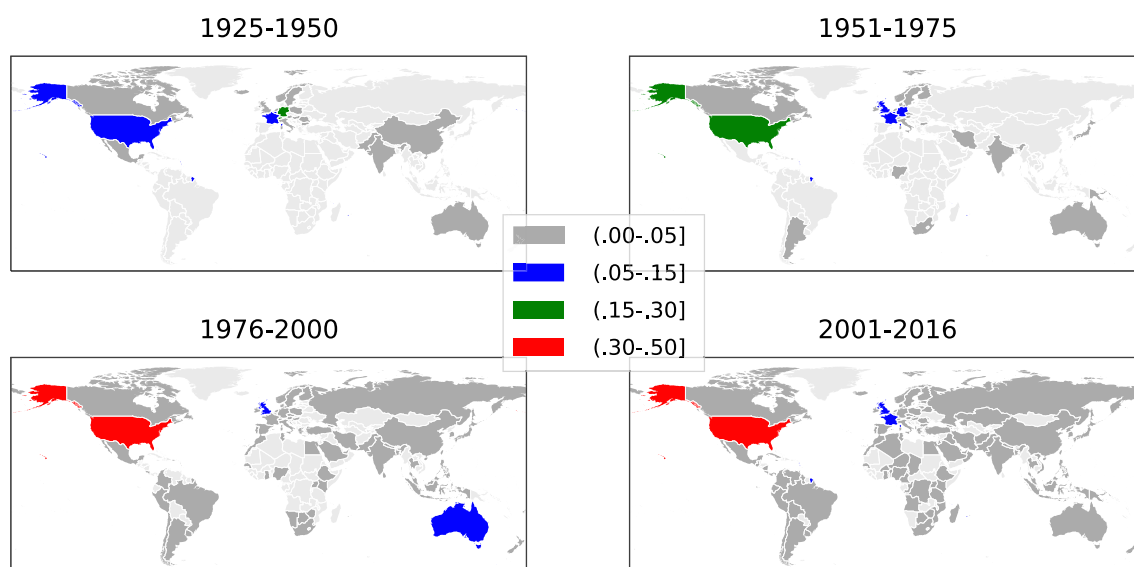
**Fig. 2** Number of journal articles and journals by year, 1925–2015

the second journal serving this field dedicatedly, and it was included in SSCI in 1997; (2) in 1973, the Commission on Private Philanthropy and Public Needs (i.e., the Filer Commission) was organized and had a critical role in inventing the concept “nonprofit sector” (Hall 2006, pp. 54–55); (3) in 1990, another two important journals in this field came out, i.e., *Voluntas* and *NML*, and the two journals became SSCI-indexed in 2011. In 2015, 628 papers were published by 19 key journals in this field.

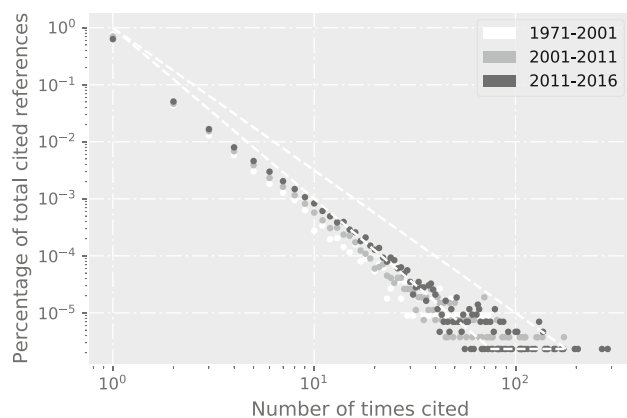
Figure 3 shows the distribution of institutions by time periods. We note several features of this figure: (1) Between 1925 and 1950, more than 40% of the articles’ affiliations were in Switzerland (24.3%) and Germany (21.5%); (2) institutions from China showed up as early as those from the western countries, but disappeared completely between 1951 and 1975; (3) after the mid-1970s, institutions are distributed unevenly, and a majority of them (more than 30% but less than 50%) are from the USA. These findings may echo some historical and political facts, for example, the relocation of research base from Europe to the USA and “civil society” as a politically sensitive concept especially during the Cold War time.

Figure 4 shows the distribution of cited references by citation counts and time periods. A total of 311,212 references were cited between 1971 and 2016 in this field. (No citation information was available in the database before 1971.) Price (1965) estimated that only a small proportion





**Fig. 3** Distribution of institutions by country and time periods. *Note:* Using ISO 3166 standard; the authors remain neutral regarding jurisdictional claims in maps



**Fig. 4** Distribution of cited references

of all the scientific literature is cited, and along with the increase in citation counts ( $x$ ), the percentage of papers that are cited for  $x$  times will decrease to  $x^{2.5}$  or  $x^3$  (p. 511). For example, the percentage of papers that are cited 5 times ( $x=2$ ) should be between 1.79% ( $5^{-2.5}$ ) and 0.8% ( $5^{-3}$ ). The citing behavior in this field headed toward the area between  $x^{2.5}$  and  $x^3$  (dashed lines), suggesting that references became neither over-cited nor less cited compared to the overall scientific community—this is evidence of the maturity of the field of nonprofit and philanthropic studies.

A total of 10,135 authors from 3506 institutions worldwide have contributed to this research field. Table 2 shows the top 20 institutions by the number of papers produced. Congruent with previous research, this field is dominated by US institutions (Shier and Handy 2014). For the top 20 institutions, each author contributed about 1.36

journal articles on average, which is much larger than the number in public administration (0.98; Ni et al. 2017, p. 4).

#### *Periodization of the Development of Nonprofit and Philanthropic Studies*

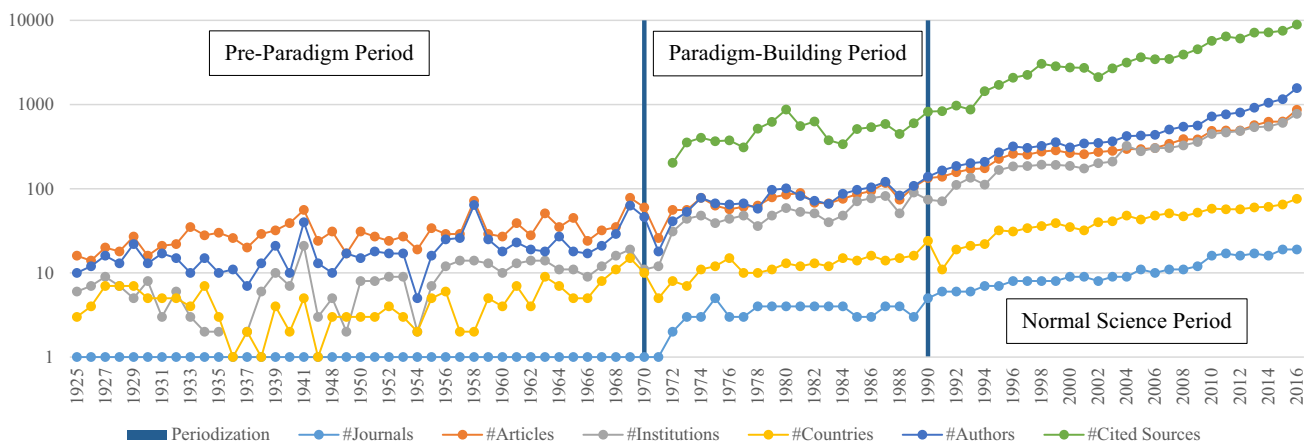
Figure 5 puts together major trends in scholarly activities by year, including the number of journals, articles, institutions, countries, authors, and cited sources. By using Kuhn's (1970) notions of “paradigm” and “normal science,” the development of nonprofit and philanthropic studies in the last century has gone through three stages:

1. *Pre-paradigm period* (1920s–1960s) features early interest in public economics, for example, the articles published in the *Annals of Public and Cooperative Economics*.
2. *Paradigm-building period* (1970s–1980s) emphasizes the fundamental theories of the nonprofit sector, for example, three-failure theories (Salamon 1987a; Weisbrod 1975, 1977).
3. *Normal science period* (1990s–2010s) features a steady growth of scholarly activities. The first wave of booming (1990s) may be driven primarily by the theoretical paradigms built in the prior period—allowing researchers to use existent theories and paradigms to accrue and extend current knowledge (Kuhn 1970, p. 35). The second wave of booming (2000s–2010s) may be attributed to the dramatic increase in institutional representation in universities, for example, the development of graduate programs and the establishment of research centers (Mirabella 2007; Mirabella and Wish 2001).

**Table 2** Top 20 institutions in nonprofit studies by the number of papers produced

Country	Institution	# Articles	# Authors	# Papers per author
The USA	Indiana University	153	119	1.29
The USA	Harvard University	139	135	1.03
Belgium	Universite de Liege	105	56	1.88
Australia	University of Queensland	103	63	1.63
The USA	Yale University	74	51	1.45
The USA	University of Southern California	74	47	1.57
The UK	London School of Economics and Political Science	64	54	1.19
The USA	University of Pennsylvania	61	33	1.85
The USA	Columbia University in the City of New York	58	43	1.35
France	Universite Paris 1 Pantheon-Sorbonne	57	45	1.27
The USA	Stanford University	54	45	1.20
Australia	Griffith University	48	49	0.98
China	Tsinghua University	47	49	0.96
The USA	The University of Georgia	46	30	1.53
The USA	UC Berkeley	44	40	1.10
Israel	Hebrew University of Jerusalem	44	31	1.42
The USA	Georgia State University	43	37	1.16
The USA	New York University	43	38	1.13
The USA	Virginia Polytechnic Institute and State University	42	41	1.02
The USA	Johns Hopkins University	42	20	2.10
			Average	1.36

Indiana University–Purdue University Indianapolis and Harvard Law School are merged with Indiana University and Harvard University, respectively



**Fig. 5** Major trends of scholarly activities and periodization in nonprofit and philanthropic studies, 1925–2015

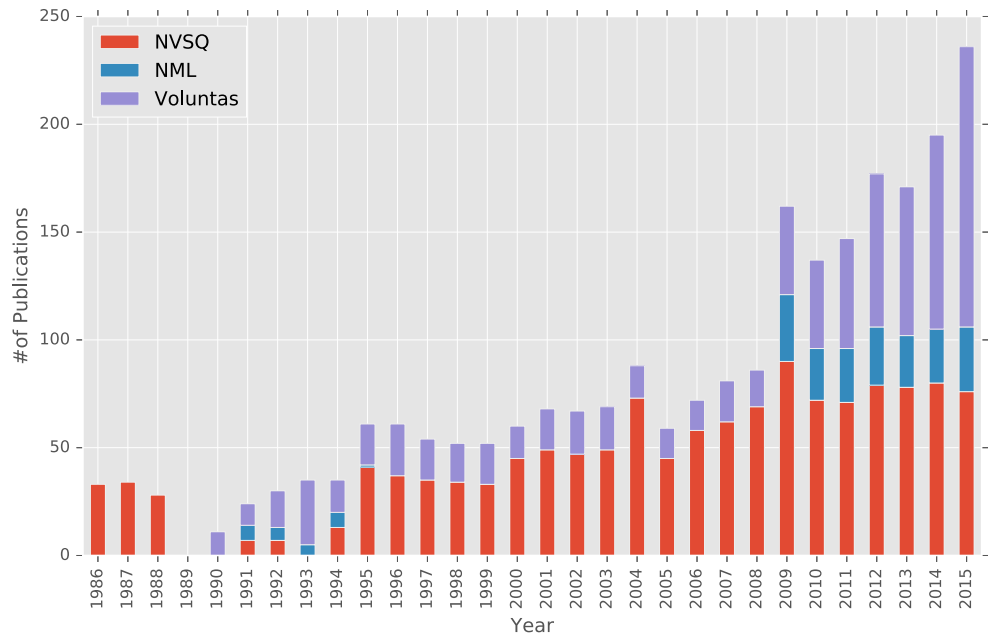
**Deeper Thematic Analysis 1986–2015**

*Describing the Overall Trends*

The number of articles published in the three journals increased from less than 50 per year to nearly 200 per year, a fourfold increase over the last 30 years (Fig. 6). Two

major efforts contribute to this achievement: the growth of journal volumes published each year and the inclusion in the *Journal Citation Reports (JCR)*. Before 1990, only *NVSQ/JVAR* was consistently serving this field. Although *NML* and *Voluntas* were established in 1990, they only produced limited, sometimes even irregular numbers of issues per year (e.g., *NML* published 6 issues in 1996 and

**Fig. 6** Number of papers published in the three journals serving nonprofit and philanthropic studies dedicatedly (i.e., *NML/NVSQ/Voluntas*). Note: *NML* Nonprofit and Management Leadership; *NVSQ/JVAR* Nonprofit and Voluntary Sector Quarterly/ Journal of Voluntary Action Research. Records of 1989 and *NML* records between 1995 and 2008 are missing from all data sources

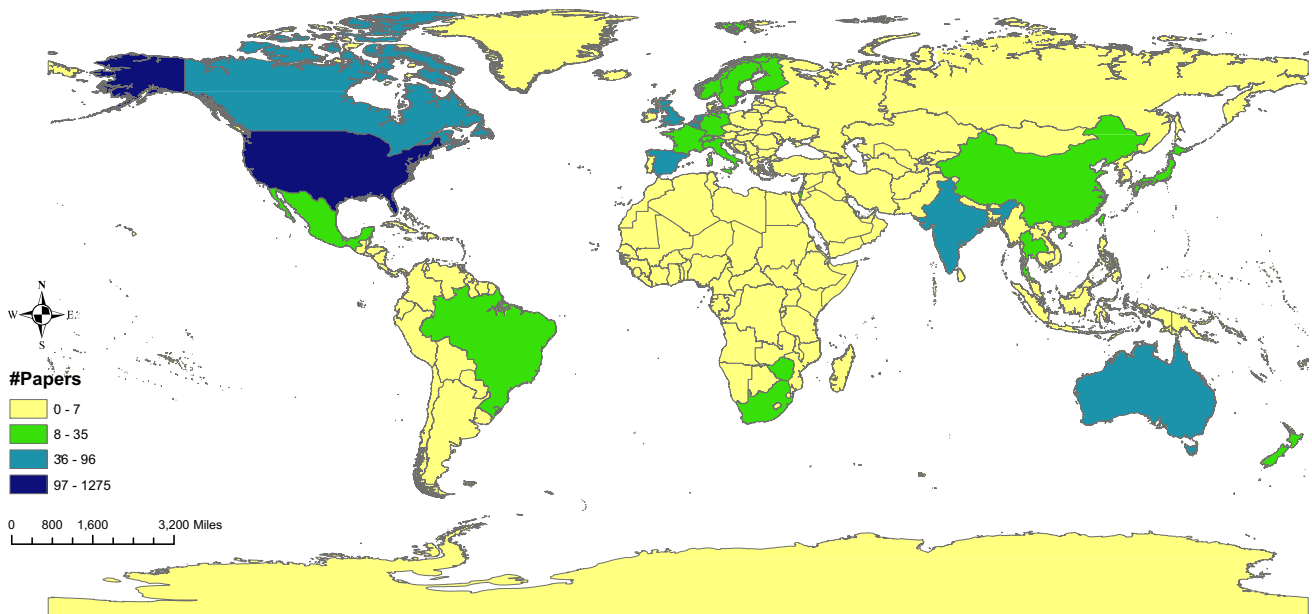


then 2 issues in 1997; *Voluntas* published 4 issues in 1994 and 3 issues in 1995). After 2000, all three journals published quarterly, and *NVSQ* started to publish bimonthly from 2009 onward, followed by *Voluntas* from 2014 onward. Although *NVSQ* was included in *JCR* from 1997, *NML* and *Voluntas* were only indexed after 2011. The inclusion of these three journals in *JCR* is critical not only for these three journals, but also for nonprofit studies because it allows a broader circulation of literature on

nonprofits in the academic community, which can help to form a scholarly identity of nonprofit studies.

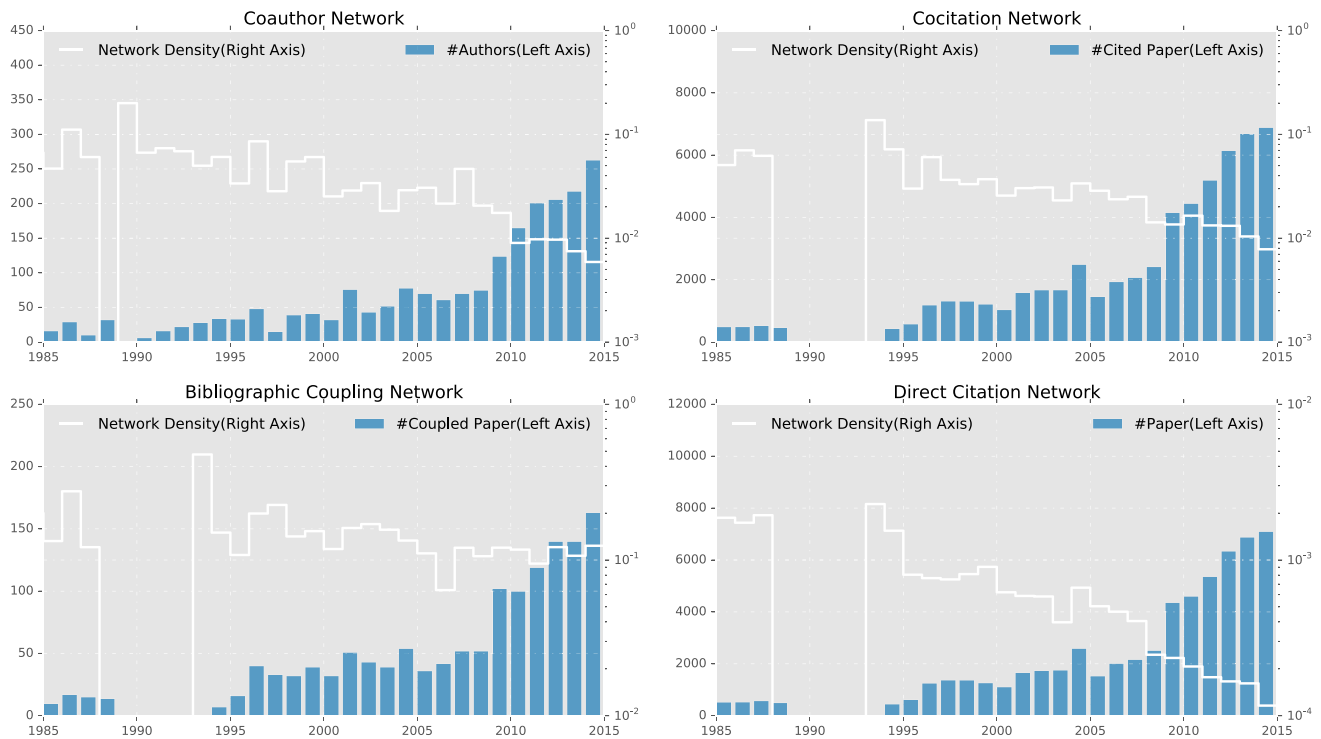
Figure 7 illustrates the unbalanced distribution of papers by country. More than half (60.7%) of the papers in this field were authored with affiliations in the USA, followed by Canada (5%), UK (4%), and the Netherlands (1.6%). This is congruent with Shier and Handy’s (2014, p. 820) finding using dissertations and theses.

Figure 8 shows the number of nodes and network density for four main bibliographic networks by year: the co-



**Fig. 7** Paper distribution by country according to authors’ affiliation (1986–2015). Note: The authors remain neutral regarding jurisdictional claims in maps





**Fig. 8** Four major bibliographic networks. *Note:* For each year, a corresponding network of that year is constructed and the metrics show the profile of the network of that year

author network, co-citation network, bibliographic coupling network, and direct citation network. In general, in terms of the number of nodes in networks (bar), the four subplots all show significant increases over time, suggesting that this research field is becoming active. Several highlights worth noticing are:

1. The co-author network in Fig. 8 shows a steady increase in the number of scholars in the collaboration network, and the decreasing network density signifies that collaborations are becoming widespread.
2. The rapidly increasing number in the co-citation network, especially after 2010, indicates that more literature has been incorporated into the intellectual base.
3. Although the number of coupled papers has significantly increased, the density of bibliographic coupling networks kept steady. This suggests the formation of several research topics that consistently attracted scholars' interests over the three decades, supporting the knowledge cohesion of this research field.

In general, the quantity of scholarly activities (Fig. 5) and bibliographical networks (Fig. 8) suggests that nonprofit and philanthropic studies is an active research field with cohesive knowledge production.

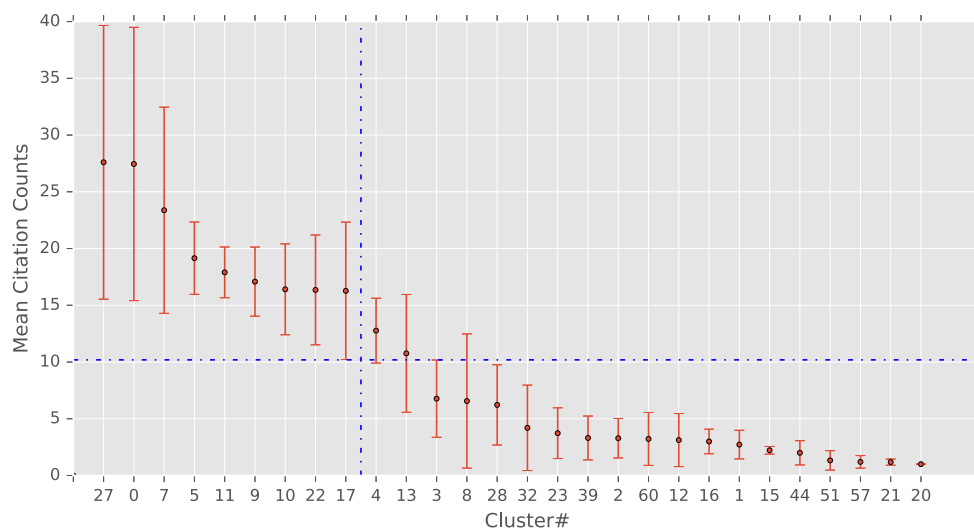
### Major Research Topics in the Field

A co-citation network with 672 nodes (cited references) was constructed and divided into 28 clusters. Each cluster represents a research topic. Figure 9 shows all the clusters and their mean citation counts. The most cited clusters include: Clusters #27, #0, #7, #5, #11, #9, #10, #22, and #17.<sup>1</sup> These clusters can be recognized as scholars' major research interests and further divided into five categories (Table 3) introduced by Shier and Handy (2014, p. 816).

The network visualization (Fig. 10) and topology of the graph can help us understand the relationship between different topics. For example, *Cluster #9: Organizational accountability* only connects with *Cluster #11: Organizational effectiveness*, suggesting a close relationship between *accountability* and *effectiveness*. The connection between *Cluster #5: Origins of nonprofit sector* and *Cluster #22: Economic analysis of nonprofit sector* reveals the role of economic theories in explaining origins of the nonprofit sector. *Cluster #17: Contracting and resource management* is widely connected with numerous other clusters, suggesting this topic is pertinent to various topics. *Cluster #27: Theories of volunteering* is in the central position of the

<sup>1</sup> The cluster number is determined by computer program. In order to consistently present the findings with raw data posted online (.tsv file, "Python ClusterID" column), we did not rename the cluster number. See detailed methodology at <http://bit.ly/30npo>.

**Fig. 9** Clusters in the co-citation network and citation counts. *Note:* Error bars show 95% confidence intervals. Clusters above the reference line are identified as the major topics in nonprofit and philanthropic studies. The cluster number is determined by computer program and not renamed to consistently present findings with raw data posted online. See detailed methodology at <http://bit.ly/30npo>



**Table 3** Major topics by general analytical categories

Human/financial resources	Effectiveness/performance	Organization development	Intra-organization context	Inter-organization context
Cluster #27: theories of volunteering	Cluster #11: organizational effectiveness	Cluster #5: origins of nonprofit sector	Cluster #17: contracting and resource management	Cluster #0: social capital and civic engagement
Cluster #10: volunteering and prosocial behavior	Cluster #9: organizational accountability	Cluster #22: economic analysis of nonprofit sector		Cluster #7: organizational theories and collaboration

Analytical categories introduced by Shier and Handy (2014, p. 816)

network, indicating its core role in nonprofit and philanthropic studies.

Due to page limits, only the largest three topics (based on the number of articles in each topic) are briefly reviewed in this subsection. Another two clusters with distinctive evolving patterns are discussed in the following subsection.

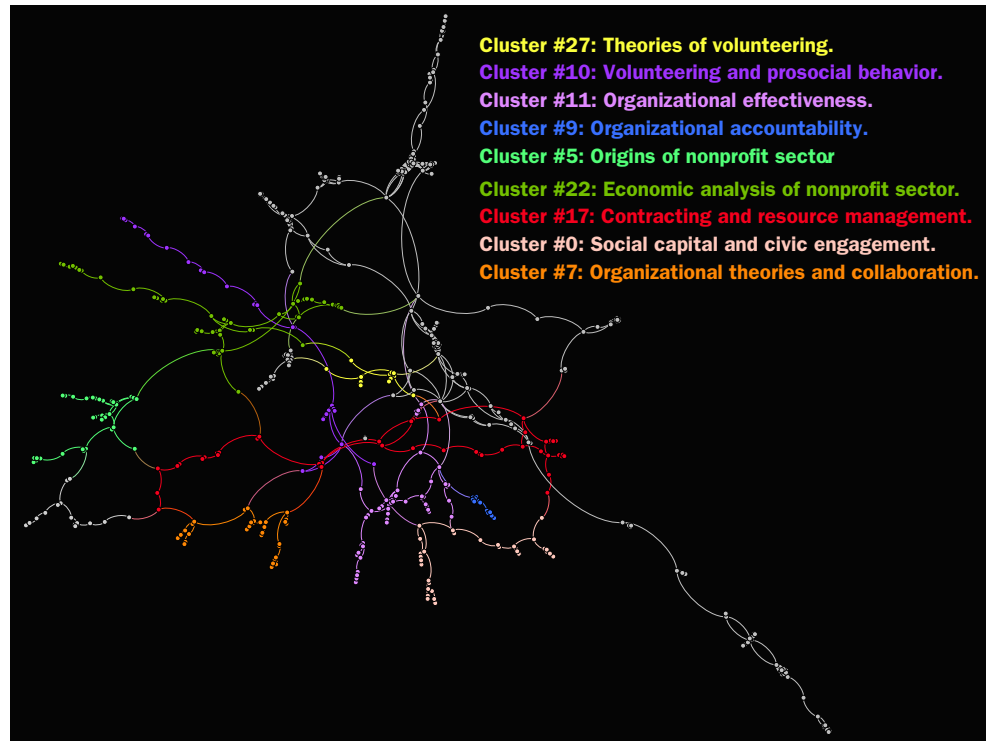
*Cluster #27: Theories of volunteering* (Table 4). Volunteering involves activities in which “time is given freely to benefit another person, group, or cause” (Wilson 2000, p. 215). Papers in this cluster mainly examine the pre-conditions, motivations, and consequences of volunteering. Wilson and Musick are the two scholars most cited in this cluster (Musick and Wilson 2008; Musick et al. 2000; Wilson 2000; Wilson and Musick 1997, 1999). Wilson’s (2000) paper published in *Annual Review of Sociology* is the most cited paper,<sup>2</sup> which synthesizes theories about volunteering from various perspectives (e.g., motives, values, and beliefs, human capital, exchange theory, and social resources). He also suggests some promising directions for future research, for example, the contribution of

volunteering to citizenship and the role of community organizations in developing “new ideas of democratic politics and citizenship” (Wilson 2000, p. 234). These suggestions directly relate to the nature of nonprofit sector, for example, as potential “schools of citizenship” (Clemens 2006, p. 207).

*Cluster #0: Social capital and civic engagement* (Table 5). Social capital has been widely examined by scholars in various disciplines and is relevant to nonprofit and philanthropic studies in many ways. For example, nonprofits can create social capital among citizens, and social capital is a core concept in community development (Wolfgang 2004). After the introduction of this term in contemporary social science (Coleman 1988; Bourdieu 1986), Putnam later defined social capital as connections between individuals, and linked this concept with civic engagement (Putnam 1995, 2000; Putnam et al. 1993). Social capital has since then received a lot of attention from scholars of nonprofit and philanthropic studies. However, Schuller et al. (2000, pp. 26–27) pointed out definitional and measurement issues of this term. Various definitions of “social capital” have been developed, but

<sup>2</sup> Citation count represents the number of times that the paper is cited by all the other articles in Dataset 2.

**Fig. 10** Network visualization by clusters and topology of themes. *Note:* The cluster number is determined by computer program and not renamed to consistently present findings with raw data posted online. See detailed methodology at <http://bit.ly/30np0>



**Table 4** Top 5 most cited references in Cluster #27: theories of volunteering

Citation counts	First author	Year	Title	Source	Article key theme
64	Wilson J	2000	Volunteering	Annual Review of Sociology	Literature review of theories of volunteering
47	Smith DH	1994	Determinants of voluntary association participation and volunteering: A literature review	Nonprofit and Voluntary Sector Quarterly	Literature review of predictors for volunteering
42	Wilson J	1997	Who cares? Toward an integrated theory of volunteer work	American Sociological Review	Empirical study on theory of volunteering
30	Musick MA	2008	Volunteering: A social profile	Book	Book on volunteering theories and influencers
38	Andreoni J	1990	Impure Altruism and Donations to Public Goods: A Theory of Warm-Glow Giving	The Economic Journal	Economic analysis of volunteering motivation

Citation counts represent the number of times that the papers are cited by all the other articles in Dataset 2

they are operationalized in very different ways. This lack of consistency raises the critique that social capital is a conceptual entity widely used by scholars to “explain everything.” The validity of data for analyzing social capital is also questionable, and a mixture of quantitative and qualitative methods may be more appropriate. Glaser and Strauss (1967) book on grounded theory also holds a prominent position in this cluster, suggesting that this popular qualitative research method is employed by many scholars who study social capital.

*Cluster #7: Organizational theories and collaboration* (Table 6). The top 3 most cited references in this cluster are classic articles (regarding citation counts) on new institutionalism (DiMaggio and Powell 1983; Meyer and Rowan 1977) and resource dependency theory (Pfeffer and Salancik 1978). These two theories developed by sociologists have had a significant impact on studying organizational behavior. Other references in this cluster are mainly about cross-sector collaboration (Austin 2000; Eikenberry and Kluver 2004) and intra-sector collaboration (Guo and Acar 2005). This suggests that the two theories became

**Table 5** Top 5 most cited references in Cluster #0: social capital and civic engagement

Citation counts	First author	Year	Title	Source	Article key theme
150	Putnam RD	2000	Bowling Alone: The Collapse and Revival of American Community	Book	Declining social capital in America
98	Putnam RD	1993	Making Democracy Work: Civic Traditions in Modern Italy	Book	Book on civic participation
55	Putnam RD	1995	Bowling Alone: America's Declining Social Capital	Journal of Democracy	Declining social capital in America
34	Coleman JS	1988	Social Capital in the Creation of Human Capital	The American Journal of Sociology	Early classic article on social capital
28	Glaser B	1967	The Discovery of Grounded Theory: Strategies for Qualitative Research	Book	Grounded theory method

**Table 6** Top 5 most cited references in Cluster #7: organizational theories and collaboration

Citation counts	First author	Year	Title	Source	Article key theme
125	DiMaggio PJ	1983	The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields	American Sociological Review	Classic article establishing new institutionalism
91	Pfeffer J	1978	The External Control of Organizations: A Resource Dependence Perspective	Book	Classic book establishing resource dependence theory
64	Meyer JW	1977	Institutionalized Organizations: Formal Structure as Myth and Ceremony	American Journal of Sociology	Classic article on institutionalism
40	Eikenberry AM	2004	The Marketization of the Nonprofit Sector: Civil Society at Risk?	Public Administration Review	Review article on the impact of nonprofit marketization on civil society
28	Austin JE	2000	Strategic Collaboration Between Nonprofits and Business	Nonprofit and Voluntary Sector Quarterly	Qualitative empirical study on cross-sector collaboration framework

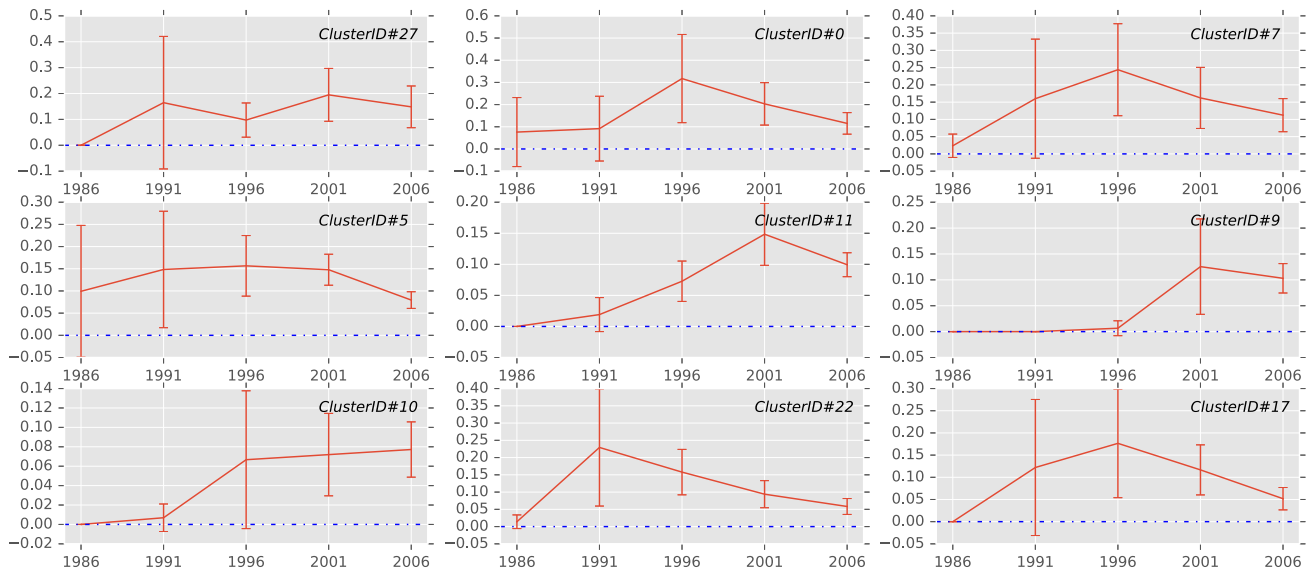
popular in this field because of studying collaboration—a research theme started in the 1980s that is still on the rise (Gazley and Guo 2015, p. 2). Gazley and Guo (2015) have suggested that there is a scarcity of theoretical work on this topic: “the ‘Big Four’ of Resource Dependence, Network, Transaction and Institutional Theories dominate the nonprofit collaboration literature” and “other theories may be underutilized” (p. 24). Our finding suggests that the situation may be even worse: Among the four theories, only two of them are widely used. As research interest in collaboration grows, scholars and course instructors should introduce diverse theories on this topic.

#### *Evolution of Research Interests*

Figure 11 shows the mean attachment probability (AP) value of each cluster over time (references are aggregated by clusters). This figure illustrates how major research

topics evolve over time. Most of these topics emerged in the mid-1980s with AP values above zero, indicating these topics have been actively developed by scholars ever since the mid-1980s. Clusters #5, #9, and #10 are the three clusters with special patterns.

*Cluster #5: Origins of nonprofit sector* (Table 7). This cluster has received consistent academic attention from the mid-1980s until the 2000s. The nonprofit sector did not get its independent identity as a field of inquiry until “market failure/government failure” theory was developed by Weisbrod (1975, 1977). This earliest dominant theory explaining why the nonprofit sector exists led scholars to focus on two primary *activities* that nonprofits undertake in relation to the state, that is, service provision and advocacy, and two principal *roles* of nonprofits in democracy, that is, developing civic engagement and building social capital within citizens (Salamon 1987b, 1995). Numerous other theories have also been used by scholars such as supply-



**Fig. 11** Mean attachment probability of major topics by year. *Note:* Error bars show 95% confidence intervals. Y-scale multiplied by 100 for visual clarity. The cluster number is determined by computer

program and not renamed to consistently present findings with raw data posted online. See detailed methodology at <http://bit.ly/30npo>

**Table 7** Top 5 most cited references in Cluster #5: origins of nonprofit sector

Citation counts	First author	Year	Title	Source	Article key theme
74	Salamon LM	1995	Partners in Public Service: Government-Nonprofit Relations in the Modern Welfare State	Book	Book on government–nonprofit relationship
54	Salamon LM	1987	Partners in Public Service: The Scope and Theory of Government-Nonprofit Relations	The Nonprofit Sector: A Research Handbook	Book chapter on government–nonprofit relationship
48	Salamon LM	1998	Social Origins of Civil Society: Explaining the Nonprofit Sector Cross-Nationally	Voluntas	Empirical quantitative and cross-nation study on theories explaining the origins of nonprofit sector
37	DiMaggio PJ	1990	The Sociology of Nonprofit Organizations and Sectors	Annual Review of Sociology	Review of the theories explaining the existence of nonprofit sector from sociological perspective
36	Esping-Andersen G	1990	The Three Worlds of Welfare Capitalism	Book	Typology of welfare states

side theory, trust theories, welfare state theory, and interdependence theory (Salamon and Anheier 1998, p. 213). However, none of these theories alone is adequate for understanding why nonprofit sectors exist in different countries, suggesting a complex “social origins approach” in which the nonprofit sector arises from interactions between institutional, social, political, and economic relationships (DiMaggio and Anheier 1990; Salamon and Anheier 1998). After the 2000s, the average AP value of this cluster significantly decreased, but was still above

zero, suggesting less academic interest in this topic. Moreover, the variance of AP values also decreased, indicating that scholars tended to regularly cite some classic pieces on this topic. These results support some scholars’ claim that theorizing the origins of nonprofit sector has come into a period of “theoretical innovations and refinements” along with “theoretical inertia” (Anheier and Ben-Ner 1997, pp. 94–95), and there needs to be a “paradigm shift” for understanding why the nonprofit sector exists (Corry 2010; Wagner 2012).



*Cluster #9: Nonprofit accountability* (Table 8). This topic is relatively new and emerged in the late 1990s. Accountability refers to “the means by which individuals and organizations report to a recognized authority (or authorities) and are held responsible for their actions” (Edwards and Hulme 1996, p. 967). One of the major paradigm shifts happened after the early 2000s: Rather than a binary, short-term, and rule-following relationship between nonprofits and their stakeholders (e.g., funders and clients), accountability is a dynamic process characterized by organizational learning and back-and-forth interactions with various stakeholders (Benjamin 2008; Ebrahim 2005).

#### *Disciplinary Identity of Nonprofit and Philanthropic Studies*

As an emerging interdisciplinary field, nonprofit and philanthropic studies are built by “many hands” from established disciplines, for example, sociology, history, and political science (Hall 1999). Scholars in this field have long been puzzled by what the “core” of nonprofit studies is.

We use betweenness centrality to operationalize this question because node with high betweenness centrality has a critical role in controlling information flow—a “structural hole” position for connecting different clusters (Burt 1992). As Table 9 shows, this field is built by “many hands” in sociology and political science indeed, because many of the top 10 studies are published in the two well-established disciplines. However, important literature on volunteering (i.e., #4 and #7) is published by the journal serving this field dedicatedly (i.e., *NVSQ*), and the scholarship produced in nonprofit studies has also influenced

other disciplines (e.g., religious studies and sociology) according to the column “Journals Mostly Citing.” Therefore, the study of volunteering can be identified as one of the “unique cores” of nonprofit and philanthropic studies.

#### **Concluding Remarks**

Scholars have been questioning whether nonprofit and philanthropic studies are a “serious research area,” and whether the knowledge production in this field can support its development toward a discipline (Hall 1999; Katz 1999). By examining knowledge production between 1925 and 2015 from quantitative and thematic perspectives, this study supports the institutionalization of this field with empirical results obtained through scientific research methods. The raw data of this study can also serve important educational purposes.

#### **Maturity of Nonprofit Studies: Active Research Field with a Solid Intellectual Base**

The quantitative analysis of scholarly activities between 1925 and 2015 suggests there were three periods of development in this field: *pre-paradigm period* (1920s–1960s), featuring early interests in public economics; *paradigm-building period* (1970s–1980s), emphasizing fundamental theories of the nonprofit sector; and *normal science period* (1990s–2010s) featuring a steady growth of scholarly activities. Throughout all these phases, nonprofit studies have engaged a large number of scholars and generated a considerable amount of literature. The

**Table 8** Top 5 most cited references in Cluster #9: organizational accountability

Citation counts	First author	Year	Title	Source	Article key theme
26	Ebrahim A	2005	Accountability Myopia: Losing Sight of Organizational Learning	Nonprofit and Voluntary Sector Quarterly	Conceptual article on introducing organizational learning to accountability
23	Ebrahim A	2003	Accountability In Practice: Mechanisms for NGOs	Accountability In Practice: Mechanisms for NGOs	How nonprofits practice accountability
21	Ospina S	2002	Negotiating Accountability: Managerial Lessons from Identity-Based Nonprofit Organizations	Nonprofit and Voluntary Sector Quarterly	Qualitative empirical study broadening the traditional concept of accountability in nonprofits
19	Edwards M	1996	Beyond the Magic Bullet: NGO Performance and Accountability in the Post-Cold War World	Book	Early work defining and examining accountability in nonprofits
18	Brown LD	2001	Accountability, Strategy, and International Nongovernmental Organizations	Nonprofit and Voluntary Sector Quarterly	Conceptual article on developing accountability in international nongovernmental organizations

**Table 9** Top 10 references in the co-citation network by betweenness centrality

#	Topic	Betweenness centrality	Citation counts	First author surname	Year	Reference title	Source title	Journals mostly citing
1	Prosocial behavior and volunteering	0.81	186	Einolf	2008	Empathetic concern and prosocial behaviors: A test of experimental results using survey data	Social Science Research	Nonprofit and Voluntary Sector Quarterly Voluntas European Sociological Review
2	Volunteering and political participation	0.31	226	McFarland	2006	Bowling young: How youth voluntary associations influence adult political participation	American Sociological Review	Ageing and Society American Journal of Sociology American Sociological Review
3	Volunteering	0.30	1754	Musick	2008	Volunteers: A Social Profile	Book	Nonprofit and Voluntary Sector Quarterly Nonprofit and Voluntary Sector Quarterly
4	Volunteering	0.24	859	Cnaan	1996	Defining who is a volunteer: Conceptual and empirical considerations	Nonprofit and Voluntary Sector Quarterly	Journal for the Scientific Study of Religion Leisure Sciences American Sociological Review
5	Organizational theory	0.24	49	Hannan	1987	The ecology of organizational founding: American labor unions, 1836-1985	American Journal of Sociology	Nonprofit and Voluntary Sector Quarterly Journal for the Scientific Study of Religion Nonprofit Management and Leadership
6	Organizational theory	0.23	1532	Meyer	1977	Institutionalized Organizations: Formal Structure as Myth and Ceremony	American Journal of Sociology	Nonprofit Management and Leadership American Journal of Sociology Administrative Science Quarterly American Sociological Review Journal of Economic Growth Journal of Development Economics

Table 9 continued

#	Topic	Betweenness centrality	Citation counts	First author surname	Year	Reference title	Source title	Journals mostly citing
7	Volunteering	0.22	257	Van Ingen	2011	Changes in the determinants of volunteering: Participation and time investment between 1975 and 2005 in the Netherlands	Nonprofit and Voluntary Sector Quarterly	Nonprofit and Voluntary Sector Quarterly Social Forces Social Science and Medicine American Journal of Sociology American Sociological Review American Journal of Sociology Annals of Public and Cooperative Economics Democratization Journal of Democracy Comparative Politics American Sociological Review Journal of Democracy Democratization
8	Political and civic participation	0.21	896	Olson	1965	The Logic of Collective Action	Book	
9	Political system	0.16	1056	Levitsky	2002	The rise of competitive authoritarianism	Journal of Democracy	
10	Political and civic participation	0.16	870	Tocqueville	1961	Democracy in America	Book	

intellectual base is growing regarding the number of references incorporated in the co-citation network, suggesting a solid backing for the maturity of nonprofit studies. The three core journals, *NML*, *NVSQ*, and *Voluntas*, have critical roles in attaining this outcome. Arguments have arisen about whether there should be more journals serving this field: Proponents suggest that there will be more opportunities for publication and expanding this field, while opponents claim there will be more inappropriate competition. Our finding supports the first argument which is congruent with Brudney and Herman (2004, p. 300): The rapidly increasing number of publications has greatly advanced the intellectual base of this field.

The knowledge in this field is growing not only in quantity, but also in cohesion. The analysis of bibliographic coupling shows that the published papers consistently share some cited references in common, indicating the formation of several main themes in the knowledge base. The pattern of citation counts suggests that the research activities in this field are becoming stable. Further analysis of the co-citation network reveals nine major themes in this field. The top three themes are theories of volunteering, social capital and civic engagement, and organizational theories and collaboration.

The geographic analysis suggests a serious challenge: the problem of low geographic and cultural diversity. The vast majority of the literature is produced by the so-called Anglosphere countries—a loose coalition of English-speaking nations that share a common language, heritage, and even the same theoretical paradigms (Salamon 2012, pp. 367–368). Bennett (2007) suggests that the Anglosphere features a particularly robust and independent civil society, but also geopolitical challenges which are intensified by economic and cultural gaps between the Anglosphere and elsewhere. Of course, it is possible that papers produced in the USA are about China or Russia, but unless indigenous academic efforts are also incorporated, this field can hardly become a global academic endeavor, let alone contribute to a better understanding of “global civil society.” Even worse, nonprofit studies as an academic research field may be distorted by political concerns. For example, one of the state leaders in China has interpreted civil society as “trap” set by “Western countries” (Simon 2013, p. xxx). Future academic and editorial activity must involve more scholars from underrepresented countries and diverse cultural and historical perspectives.

### **Tension between Academia and Practice: Importance of New Paradigms**

Academic research and practice need to match their progress and build conversations. For example, practitioners have expressed that studies of government–nonprofit

relations (represented by *Cluster #5*) and citizen participation (represented by *Cluster #0*) were no longer needed in the early 1990s (Brudney and Kluesner 1992, p. 304). But as Fig. 11 shows, the two topics still attracted lot of scholarly attention even a decade later. On the contrary, research of organizational accountability (*Cluster #9*), which is more pertinent to practitioners, only received increasing scholarly popularity in the late 1990s.

Some scholars suggest that in order to mitigate the tension between academic research and practice, there needs to be more collaboration between scholars and practitioners. Theoretical studies may not have immediate applied implications for practitioners, but basic knowledge is essential for the development of nonprofit studies as a field of scholarly inquiry (Brudney and Kluesner 1992). Through appropriate translation, these theoretical studies may have a significant impact on practice. Therefore, one of the solutions for mitigating the tension is the “communication process between academics and practitioners and their ability to share and/or jointly produce knowledge” (Bushouse and Sowa 2012, p. 500).

This paper suggests another possible approach: the formation and transformation of new academic paradigms. Scholars’ research agenda and academic priorities are more influenced by the “groundbreaking studies”—studies that can lead the creation of new paradigms. As Kuhn (1970, p. 35) describes, researchers tend to work on “puzzle-solving” using existing theories and paradigms to accrue and extend current knowledge, rather than produce major new theories. Most of the topics illustrated in Fig. 11 are boosted by the “groundbreaking studies.” For example, the peak of *Cluster #0: Social capital and civic engagement* was boosted by Putnam and his colleagues’ work (1993, 1995, 2000). *Cluster #7: Organizational theories and collaboration* was boosted by the development of new institutionalism. *Cluster #9: Organizational accountability* was advanced by the shift from a static view to a dynamic view—the organizational learning and interactions among stakeholders (Ebrahim 2005; Edwards and Hulme 1996, p. 969). In order to attract more scholars working on a specific topic, a theoretical paradigm needs to be built in the first place.

### **Pedagogical Implications**

Abundant educational resources, such as introductory textbooks, specified databases, and online indices of scholarship, are indispensable for developing an academic field because future scholars in this field are trained using these resources. But as an emerging research discipline, educational resources for nonprofit and philanthropic studies are scarce.

Thus, this study can also serve important pedagogical purposes. As Fig. 10 shows, the network topology of knowledge is very helpful for developing a syllabus introducing basic theories on nonprofit studies. For example, *Cluster #27: Theories of volunteering* can be the first module in a syllabus because it is central in the knowledge map. The *Cluster #5: Origins of nonprofit sector* and *Cluster #22: Economic analysis of nonprofit sector* should be aligned together because they are theoretically connected. The most cited references in each cluster are indispensable for students to understand the theme. More usage can be discovered from the raw dataset posted online (<http://bit.ly/30npo>).

### Limitation and Future Studies

Two major concerns of this study are the representativeness and comprehensiveness of the dataset. As an interdisciplinary area, a substantial amount of literature on nonprofit and philanthropic studies comes from the humanities, typically published in book form (e.g., Bremner 1988; Payton and Moody 2008). Therefore, this study may underestimate the activities and scope of nonprofit studies by only using journal articles as *citing references* even though the *cited references* include literature in various forms. Many articles may also be published in languages other than English. Future research should attempt to address this limitation by incorporating other types of publications in more languages.

As the first empirical study in the series, this descriptive study focuses on the landscape of nonprofit and philanthropic studies. Future studies can extend our understanding of this interdisciplinary field by (1) examining the economic, political, and cultural drivers of knowledge production and (2) understanding interdisciplinary interactions, for example, how public administration, business, and social work have informed and influenced nonprofit and philanthropic studies.

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### Compliance with Ethical Standards

**Conflict of interest** The authors declare that they have no conflict of interest.

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