

**Exploring the Moderators of the Relationship between Nonprofit Sector Size and Its
Societal Impact: A Meta-Analysis**

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Abstract

Assessing the impact of the nonprofit sector on society has been one of the most fundamental yet challenging questions in public and nonprofit management scholarship. Built on a recent systematic literature review published in *VOLUNTAS* (Cheng & Choi, 2022), our meta-analysis synthesizes the existing literature from multiple disciplines and fills this critical knowledge gap. Using 357 effects from 29 studies, our moderation analysis shows that a larger nonprofit sector has a more positive impact on society especially when the impact is political and measured at the city/county level. Studies that used fixed effects models and quasi-experimental designs also found a more positive societal impact of the nonprofit sector. However, the choice of sector size measure, the selection of impact measure, the use of lagged explanatory variables, publication bias, and publication time seem not to matter.

Keywords: Social Impact, The Nonprofit Sector, Meta-analysis, Systematic Literature Review

Introduction

As Salamon et al. (2000) argued in their provocative essay – *The Nonprofit Sector: For What and For Whom*, “few questions about the nonprofit sector are more fundamental, but also more difficult to answer than the question of the impact this set of organizations has” (p.1). DiMaggio (2022) treated measuring the societal impact of the nonprofit sector as a task that is extremely important but probably impossible because of its substantive significance and multiple methodological challenges including comparing sector performance across policy fields and aggregating data at the appropriate level of analysis. Due to various high-profile nonprofit scandals in recent years (Chapman et al., 2022), the nonprofit sector worldwide is experiencing stronger scrutiny from the government and the public regarding its effectiveness and impact (Benjamin, Ebrahim, & Gugerty, 2023). It is, therefore, imperative, to better assess the societal impact of the nonprofit sector. By societal impact, we mean the social, economic, environmental, and political impacts the nonprofit sector has on a locality. By the nonprofit sector, we follow Salamon and Anheier (1992) to refer to those organizations that are private, formal, self-governing, voluntary, and non-profit-distributing.

In the last two decades, extensive progress has been made in assessing the societal impact of the nonprofit sector in major social science disciplines and applied fields such as sociology, political science, criminal justice, urban affairs, and environmental studies. For example, Sharkey et al. (2017) used longitudinal data to examine the causal effect of local nonprofits on reducing a

community's violent crime rate. Berrone et al. (2016) built a seven-year panel dataset to assess how the changing number of nonprofits in 245 U.S. cities influenced income inequality in these communities. However, these efforts mainly depend on the main interest of the corresponding disciplines, and the field is rather fragmented based on disciplinary boundaries regarding whether and under what conditions the nonprofit sector creates one type of societal impact (Cheng & Choi, 2022; Ebrahim & Rangan, 2014; Flynn & Hodgkinson, 2001). There is little research consistently comparing the societal impact of the nonprofit sector across different policy domains, making it difficult to generalize policy domain-specific knowledge and reconcile competing theoretical arguments.

Taking advantage of the extensive progress made in various disciplines regarding different types of societal impacts of the nonprofit sector, our meta-analysis aims at filling in these critical gaps of knowledge by synthesizing the existing literature to assess whether a larger nonprofit sector has a positive or negative impact on society. Moreover, as the nonprofit sector is very diverse and the empirical strategies in studying its societal impact vary, our key goal is to explore how the relationship between nonprofit sector size and its societal impact is moderated by important theory-driven and methodology-driven factors, such as the type of societal impacts based on policy domains, the geographical levels of analysis, regression model selection, and other research design factors. By focusing on these moderating conditions, our study helps build middle-range theories in public and nonprofit administration and find common threads that can

explain empirical observations from diverse fields of studies (Emerson, 2022; Isett & Sowa, 2022).

As moderating conditions are our focus, we begin with a discussion of potential moderators that may affect the societal impact of the nonprofit sector. Next, we introduce the data and methodology to answer these research questions. Finally, we present and discuss the results of our meta-analysis, followed by a conclusion and suggestions for future research.

Potential Factors that Moderate the Nonprofit Sector Size – Societal Impact Relationship

Ringquist (2013) and Card (2015) provide guidance on the selection of moderators for meta-analysis. They suggest that such moderators could be a series of theory, study, or model characteristics that may systematically predict variation in effect sizes within and across studies. Of the moderators included in this meta-analysis, *Types of Societal Impact* is a theory characteristic moderator whereas *Geographical Level of Analysis*, *Regression Model Selection*, *Lagged vs. Non-Lagged Explanatory Variables*, *The Number of Nonprofits vs. Nonprofit Density*, and *Subjective vs. Objective Measures of Societal Impact* are study or model characteristics moderators. Moreover, *Publication Bias* has been commonly used by meta-analysts to test whether effect sizes in published studies are different from those in unpublished ones, and *Publication Time* has been widely used to examine whether the effect size of interest changes over time. Among the eight moderators mentioned above, we treat *The Number of Nonprofits vs.*

Nonprofit Density, Publication Bias, and Publication Time as control variables in our meta-regression models, justifying the inclusion of the key moderators as follows.

Types of Societal Impact

When discussing the major challenges in measuring the societal impact of the nonprofit sector, DiMaggio (2002) listed the industrial variation in different niches as a key barrier in measuring sector-level impact. Those different functions and roles played by the nonprofit sector based on the policy domains they operate in may be particularly important as we assess the societal impact of the nonprofit sector. Different disciplinary and theoretical perspectives also offer divergent views regarding whether the nonprofit sector makes a positive or negative impact on society. For example, while the economic theories of the nonprofit sector emphasize its service provision role in a mixed economy (Steinberg, 2006), the political theories of the nonprofit sector focus on its role in building social capital, promoting civic engagement, and cultivating self-governance (Clemens, 2006). Recently, there has also been more critical scholarship examining the dark side of the nonprofit sector, especially its role in promoting polarization (Ben-Ner, 2022), causing increasing economic and social inequities (Reich, 2020), and forging segregation and exclusion (Danley & Blessett, 2022). While we expect the societal impact of the nonprofit sector to vary based on the different roles nonprofit organizations play in these domains, we lack a coherent theoretical understanding of how such impacts may differ because of the fragmented nature of inquiry in various disciplines and policy domains.

Geographical Level of Analysis

The location and geographical distribution of nonprofit organizations have been a critical area of inquiry in nonprofit and voluntary sector studies as it directly ties to who benefit from the services provided by nonprofits and what type of community conditions drive nonprofit growth (Marchesini da Costa, 2016; Peck, 2008). One of the key methodological choices in these studies is which geographical level of analysis to focus on. Results also seem to vary when different geographical levels of analysis are chosen in these studies. For example, in the field of parks and recreation services, Cheng (2019) found that park-supporting nonprofit spending crowds out local government spending at the city level. However, when assessing public capital funding allocation inside New York City's park system, Cheng & Li (2022) found the opposite pattern – park units supported by park-supporting nonprofits received more government capital funding. When assessing the societal impact of the nonprofit sector, similar challenges arise as it is challenging to match the scale of the nonprofit sector with the geographical scope of the societal impacts. This methodological choice of the geographical level of analysis is, therefore, likely to matter for the direction and scale of the societal impact the nonprofit sector generates.

Regression Model Selection

Early quantitative scholarship on the influence of the nonprofit sector tended to use basic regression models such as ordinary least squares (OLS) for the estimation. For example, in their study of crime, Smith et al. (1997) used OLS to examine the relationship between the number of

community-based organizations and the number of total crimes within the community. One main problem with using OLS is its failure to address the issue of endogeneity. Cheng & Choi (2022) held that studies on the impact of the nonprofit sector on society “may suffer from the endogeneity problem, either through the self-selection of the creation of third sector organizations or some omitted variables that may drive both the creation of third sector organizations and community conditions.” (p. 3). According to them, a better way for studies to address the endogeneity problem is to use more advanced modeling approaches such as fixed effects or instrumental variables combined with fixed effects. These two modeling approaches can account for time-invariant unobservable variables to reduce the omitted variables bias. Primary studies included in this meta-analysis specify various models to predict the influence of the nonprofit sector. Following Cheng and Choi (2022), we grouped the models into three categories: basic regression models (e.g., OLS, Poisson, or logistic), fixed-effects, and quasi-experimental designs (e.g., instrumental variable or propensity score matching).

Lagged vs. Non-Lagged Explanatory Variables

A second research design moderator investigates the potential value of lagged explanatory variables in detecting the influence of the nonprofit sector on society. Lagged explanatory variables are commonly used in nonprofit research in response to endogeneity concerns in observational data. However, there are concerns about whether the use of lagged explanatory variables in regression models can fundamentally surmount endogeneity issues. Bellemare,

Masaki, and Pepinsky (2017) argue that including lagged values of independent variables on the right-hand side of a regression model is less of concern when “there are clear theoretical reasons to expect that the effect of an explanatory variable only operates with a one-period lag” and “lagged independent variables serve a statistical function” (p. 950). However, the concerns of the inclusion mostly center around the practice of lagging explanatory variables for identification purposes. The practice is common in social sciences. They found that “lag identification not only fails to avoid the identification problem without adding new assumptions but will also lead to misleading inferences under the null hypothesis significance testing paradigm” (p. 959). The findings prompted our interest in exploring whether the influence of the nonprofit sector varies according to the dichotomy of lagged and non-lagged explanatory variables.

Subjective vs. Objective Measures of Societal Impact

Another potential influential source of variation across studies concerns subjective versus objective impact measures. Some primary studies included in this meta-analysis used subjective impact measures (e.g., Forbis, 2013; Ressler et al., 2021) while others used objective ones (Cheng et al., 2021; Crubaugh, 2018). One major concern of using subjective measures is that individuals tend to overestimate the positive impact made by their organizations (Meier & O’Toole, 2012; Meier et al., 2015). This phenomenon is referred to as positive illusions by Taylor (1989). In their study of the Texas Assessment of Knowledge and Skills as well as for college-bound performance, Meier & O’Toole (2013) found subjective and objective measures

not closely related. They concluded that it “raises serious questions about the use of managers’ subjective assessments in public organizational settings with less clearly established performance criteria and less well-developed data systems than can be found here” (p. 17). They also concluded that “the use of the subjective measures from managers can produce misleading research results for the key practical question of what drives performance” (p. 17).

Meta-Analysis: Data and Methods

To answer the research questions of (1) whether a larger nonprofit sector has a positive or negative impact on society and (2) how the relationship between nonprofit sector size and its societal impact is moderated by theory-driven and methodology-driven factors, this study used meta-analysis. A meta-analysis is an analysis of analyses. Glass (1976) defines meta-analysis as a “statistical analysis of a large collection of analysis results from individual studies for the purpose of integrating the findings” (p.3). Individual studies in a meta-analysis need to be quantitative research and report statistical relationships that researchers are interested in. A meta-analysis is valuable and useful when many individual studies dealing with a certain topic have reported inconsistent results.

Sample Selection

As a meta-analysis is an analysis of primary (individual) analyses, the first step in conducting a meta-analysis is to select relevant quantitative primary analyses. We used 31 articles collected

from a recent systematic literature review of the quantitative studies on the third sector's impact conducted by Cheng and Choi (2022) as the starting point to search for relevant studies. We reviewed the empirical details of each article and decided which candidate studies to include based on the following criteria.

First, we included studies that examined various types of impacts the nonprofit sector has in a given community. These impacts can be social, economic, environmental, and political. We define impact broadly in this study to refer to any intended and unintended consequences of the nonprofit sector in various policy domains. The societal impact of the nonprofit sector can be intentional when they are aligned with the mission of the sector. For example, the intended impact of the environmental nonprofit sector is to improve the environment and reduce pollution. However, the impact of the nonprofit sector can also be unintentional. For example, in Ben-Ner (2022)'s thesis about the dark side of the nonprofit sector or Salamon (1987)'s conceptualization of the voluntary failure theory, nonprofits may not be intentionally doing harm but some inherent structural limitations in their organization may cause harm or increase polarization in the community. We do not include studies that examine nonprofit performance or effectiveness at the organizational level (e.g., Coupet & Schehl, 2022) because of our focus on sector-level impact. For organizational-level studies, it is difficult to establish a direct link between individual organizations and societal impact at the community level (Ebrahim & Rangan, 2014).

Our second criterion considers the measure of the size of the nonprofit sector. As different disciplines and field studies may not always use the nonprofit sector to describe their target organizations, we broadly include studies that examine the societal impacts of community-based organizations, nonprofit organizations, non-governmental organizations, and congregations. These organizations are typically characterized as part of the nonprofit sector based on Salamon & Anheier (1992)'s classic definition. We included articles that measure the nonprofit sector using either the number of nonprofits or the density of nonprofits in a community. While the former produces an absolute number, the latter provides a ratio of nonprofit organizations per 1,000, 10,000, or 100,000 people. These two indicators have been widely used by previous studies to measure the size of the nonprofit sector. For instance, Grønbjerg & Paarlberg (2001) used the number of IRS-registered nonprofits per 10,000 residents to measure the overall prevalence of nonprofits in their study of community variations in the size and scope of the nonprofit sector. Grant and Langpap (2019) used the total number of active nonprofit watershed groups to examine whether their increased presence of watershed groups improves water quality.

Our final criterion is sufficient quantitative analysis information presented in the article. There were candidate articles that provide very little information about inferential statistics such as parameter estimates, significance level, t-statistics, or z-statistics for us to estimate or calculate effect sizes. We excluded them in our meta-analysis. Following these criteria, the search yielded 13 eligible primary studies.

We then conducted backward and forward searches on the eligible studies to identify studies that were not collected by Cheng and Choi (2022). We identified six primary studies from backward searches and one from forward searches. Moreover, as Cheng and Choi's (2022) list did not include any unpublished articles, we used ProQuest and scanned archives of working papers (e.g., SSRN) to search for relevant studies. Keywords combined with the Boolean operators "AND" or "OR" for ProQuest searching were as follows: (nonprofit OR not-for-profit OR non-profit OR charitable organization OR voluntary organization) AND (impact OR result OR change OR output OR outcome OR performance OR effectiveness). We found two primary studies through these searches. We also contacted the authors of the initial 31 articles for unpublished articles. Three responded to our request and shared additional studies with us, yielding four more primary studies. Finally, we searched articles via Google Scholar as a reality check and found three more primary studies. After the searches and reality check, we included in the meta-analysis 29 studies that reported a statistical relationship between the size of the nonprofit sector and nonprofit impact.¹ The last search date was December 13, 2021. Figure 1 summarizes the sample selection process.

< Figure 1 about here >

Measure Specification

Following Card (2015), Hung and Lu (2022), and Ringquist (2013), we coded the selected primary studies for effect size calculations and moderation analyses. When conducting a meta-analysis in the field of public management and policy, an effect refers to the magnitude and direction of the correlation coefficient that documents the relationship between two variables under study (Ringquist, 2013). In the case of this study, it is the relationship between the size of the nonprofit sector and its societal impact. However, different primary studies report the statistical relationship in different ways. For those primary studies that reported *t*-statistics (e.g., Shandra, Shandra, & London, 2010), we used *t*-statistics to estimate the effect sizes. We calculated *t* statistics for estimating the effect sizes when primary studies reported parameter estimates and standard errors but do not provide the statistics (e.g., Cheng, Yang, & Deng, 2022; Sharkey, Torrats-Espinosa, & Takyar, 2017). We used corresponding *t*-statistics to estimate the effect sizes when primary studies (e.g., Berrone, Gelabert, Massa-Saluzzo, & Rousseau, 2016; Smith, Novak, & Hurley, 1997) only reported a level of statistical significance, but not standard errors. For those primary studies that reported parameter estimates that were not statistically significant (e.g., Peck, 2008), we recorded the effect sizes as zero. We regarded standardized regression coefficient estimates as the effect sizes if only standardized β is reported in a primary study (e.g., Lee & Ousey, 2005; Ressler et al., 2021).

This process yielded 357 effects reported in the 29 studies (see Appendix 1). Of the 357 effects, 269 indicated a positive association between the size of the nonprofit sector and nonprofit impact, 3 had no association, and 85 had a negative association.

< Appendix 1 about here >

We estimated an average effect size across studies by combining the 357 effects. The summary effect size was .04 ($z = 13.24$, $p < .001$), with a 95% confidence interval of [.03, .04]. That is, when all available primary studies are considered together, the overall pattern indicates a positive and statistically significant association between the size of the nonprofit sector and the sector's impact on society. On the whole, the nonprofit sector makes a positive impact on society based on the results of this meta-analysis.

Analysis of Moderators

We then tested how the positive impact differs across studies by conducting a moderation analysis. We used random-effects meta-regression models to explore the variation in effect sizes, due primarily to high heterogeneity in effects among the primary studies and their reported effects, $I^2 = 96.90\%$. Although we observed high heterogeneity in effects, effect sizes in the primary studies are not independent. In fact, they are clustered within the primary studies. This

posts at least two challenges for meta-analysis. First, effect sizes are likely to be in clusters, thus violating the independence of observation assumption that underlies regression analysis. Second, effect sizes coded from each primary study are likely to create study-level heteroskedasticity in the meta-regression error term. A remedy to these two challenges is to use clustered robust estimation in meta-regression (Ringquist, 2013). We thus used random-effects cluster robust variance estimator (CRVE) meta-regression models in this study. In the CRVE models, the dependent variable is effect size and the independent variables are moderators selected to explain the variation in effect sizes.

Moderators used in meta-analysis to explain the variation in effect sizes could include theoretical argument, variable measurement, sample structure, research design, model specification, study quality, etc (Card, 2015). To test the sources of the variation, we considered eight moderators in this meta-analysis. Six of them were discussed in the section of Potential Factors that Moderate the Nonprofit Sector Size – Societal Impact Relationship, and the other two (publication bias and publication time) are standard moderators included in a meta-analysis. We described in detail how we coded the moderators for meta-regression analysis in Table 1.

< Table 1 about here >

Results

Before conducting meta-regression models, we performed correlation analysis to investigate the potential of collinearity among the moderators. We found that effects generated from lagged explanatory variables and those effects drawn from publication year are correlated at .61. Also, effects generated from model specification and those effects drawn from lagged explanatory variables are correlated at .71. We then evaluate variance inflation factors (VIFs), and the results show that the mean VIF is 2.14, which suggests that there is no multicollinearity issue in our regression models. No other moderator intercorrelations approached .60 (Appendix 2). The results from the moderator analyses are presented below (Table 1). We conclude the findings in the following sections using the results from Model 4 in Table 2 where all moderators are accounted for the variation in effect sizes.

<Appendix 2 about Here>

<Table 2 about Here>

Types of Societal Impact. This moderator examines whether the effects in models that focus on social and economic impact differ from the models that focus on political and environmental impact. The results from the meta-regression models show that the effect size, on average, is more positive for political impact, when compared to social and economic impact. A significant difference appears across the four models. Moreover, although the effect size, on average, is

more positive for environmental impact when compared to social and economic impact, the difference is not statistically significant.

Geographical Level of Analysis. The level of analysis moderator examines whether the effects in models that focus on the neighborhood level differ from the models that focus on the city/county and state/national levels. The results from the meta-regression models show that the effect size derived from the city/county level is significantly larger than the neighborhood level while the difference between neighborhood and state/national level is not significant.

Regression Model Selection. The model selection moderator examines whether the effects derived from basic regression models differ from the effects produced by fixed-effects or quasi-experimental design models. The results from the meta-regression models show that the effect sizes produced by fixed-effects or quasi-experimental design models, on average, are more positive than the effects derived from basic regression models.

Lagged vs. Non-Lagged Explanatory Variables. This moderator tests whether the influence of the nonprofit sector varies according to the dichotomy of lagged and non-lagged explanatory variables used in regression models by the primary studies. The results from the meta-regression model show that the effect size produced by models is not influenced by whether the models use lagged explanatory variables.

Subjective vs. Objective Measures of Societal Impact. As described above, we test whether the influence of the nonprofit sector varies according to subjective versus objective impact measures. Our moderator analysis indicates that effects calculated from studies that used subjective impact measures are not statistically different from those that used objective impact measures. In other words, a positive bias in self-assessments does not exist in the nonprofit impact scholarship.

Analysis and Discussion

Patrice Flynn and Virginia Hodgkinson, in their edited volume - *Measuring the Impact of the Nonprofit Sector* (2001), wrote: “To date, the nonprofit sector has relied on anecdotal evidence and general goodwill to argue for its many successes and tax-exempt status. There is no body of scholarly literature assessing the roles, functions, and contributions of the nonprofit sector ...” (p. 3- 4). Our meta-analysis synthesizes the existing literature on quantitatively assessing the societal impact of the nonprofit sector and contributes to this critical gap of knowledge in two related ways: first, whether a larger nonprofit sector generates a more positive impact on society; second and most importantly, whether the types of societal impact, geographical levels of analysis, regression model selection, and various research design factors moderate this impact. We find that the nonprofit sector, in general, has a small (i.e., the summary effect size was .04) but positive average impact on society across multiple policy domains. Our moderation analysis suggests that the nonprofit sector has a more positive impact on society when the impact is

political and measured at the city/county level. Studies that used fixed effects models and quasi-experimental designs also found a more positive societal impact of the nonprofit sector.

However, the choice of sector size measure, the selection of impact measure, the use of lagged explanatory variables, publication bias, and publication time seem not to matter. Here below we discuss our main contributions to theory and practice.

First, our findings suggest that compared to social and economic impact, a larger nonprofit sector size tends to generate a more positive impact on society when the impact is political. This finding speaks to the indispensable roles of the nonprofit sector in fostering citizenship, promoting political participation, holding the government accountable, and serving as an independent voice that advocates for changes in the public and private sectors. Using Young (2000)'s classic three modes of government-nonprofit relations, service provision roles mainly belong to the supplementary and complementary modes of government-nonprofit relations while the advocacy roles belong to the adversarial mode -nonprofits play important roles in advocacy and member organizing to make changes in public policy. Our meta-analysis results suggest that the nonprofit sector is likely to make a more positive impact when the nonprofit sector is engaged in an adversarial relationship with the government. As many countries learn from the U.S. experience in terms of contracting out and using nonprofits for service provision, our findings suggest that the most critical role of the nonprofit sector seems to be on promoting citizen participation and keeping the government accountable to its citizens. It is essential to keep the independence and political advocacy roles of the sector. This has important implications

regarding what types of functions of the nonprofit sector we should cultivate and promote more in our society.

Second, our findings of the more positive impact of employing a stronger research design suggest the importance of dealing with endogeneity and other confounding factors when assessing the impact of the nonprofit sector (Cheng & Choi, 2022; De Wit & Bekkers, 2017; DiMaggio, 2001). When using a fixed effects model to control for unobserved heterogeneity and quasi-experimental methods to address endogeneity, studies are more likely to find a more positive impact of the nonprofit sector. There are multiple reasons why such moderating effects exist. For example, the more positive impact may be because nonprofits are likely to serve communities with more need in the first place, thus biasing towards a more negative association if such endogeneity is not addressed in the research design. While our study does not allow us to tell the exact theoretical mechanisms behind these moderation findings, it does indicate that research design and model specification matter as we assess the impact of the nonprofit sector. Scholars need to be transparent about where biases or endogeneity may arise and use rigorous research design to deal with it (Cheng & Choi, 2022).

Finally, our findings suggest that carefully choosing the appropriate geographical level of analysis also matters. In particular, scholars are more likely to find a more positive societal impact of the nonprofit sector at the city/county level as compared to the neighborhood level

like census tracts and larger geographical units like states and nations. As the two tiers of local governments with administrative authorities, it may be easier for the nonprofit sector to coordinate their activities with these governments when they operate at the city or county level, as compared to census tracts or block groups which are statistical subdivisions with no corresponding administrative authorities. Because of the widespread collaboration between nonprofits and local governments to support social innovation (Lenz & Shier, 2021), it may also be easier to mobilize more resources and provide better services if the size of the nonprofit sector is measured at the city or county level. For larger jurisdictions like states and nations, because of various collective action dilemmas, governmental actions are often preferred over nonprofit activities (Bushouse & Never, 2016). These factors may jointly contribute to our finding of a more positive impact of the nonprofit sector when the geographical units of analysis are cities or counties. Future studies need to fully disentangle the specific mechanisms of why the impact of the nonprofit sector differs based on the geographical level of analysis.

Limitations and Future Research

Our study suffers from a few limitations. First, our selection of moderators is limited to the types of articles we gather from the literature search process. In other words, we are not able to develop the full array of moderators that have theoretical and have substantive significance. For example, a cross-country analysis would be ideal as we understand how different political systems or national culture shape the impact of the nonprofit sector in countries. However,

studies included our meta-analysis predominantly focus on the nonprofit sector in the United States. We thus advocate more studies on the societal impact of the nonprofit sector beyond the U.S. context. As the field continues to develop and more scholars across the globe recognize the important roles of the nonprofit sector, a more complete cross-country analysis may be possible.

Second, we might underestimate some effect sizes. We estimated the effect sizes when primary studies only reported a level of statistical significance, but not standard errors. Also, we recorded the effect sizes as zero when primary studies only reported parameter estimates that were not statistically significant. However, these effect sizes are low-bound estimates, which suggests that the actual effect sizes could be larger. Because of this, we suggest that future primary research on this scholarship reports findings as detailed as possible for future meta-analysis to estimate the effect sizes more accurately.

Finally, while our use of random-effects CRVE meta-regression models may mitigate the concerns of non-independence of effect sizes and study-level heteroskedasticity, the models may still not be able to produce unbiased estimates of the effect of societal impact of the nonprofit sector. Future studies could use more robust models to replicate our results.

Conclusion

In conclusion, this meta-analysis allows us to break the silos of different disciplines and synthesize the existing literature on quantitatively assessing the impact of the nonprofit sector on society in multiple fields of study. As the nonprofit sector around the world suffers from more extensive public scrutiny and government control, our findings demonstrate the overall positive impact the nonprofit sector has on society across many policy domains. Our moderation analysis results further suggest the importance of embracing the political role of the nonprofit sector and taking research design seriously. Instead of talking past each other, there are huge opportunities in fostering cross-pollination between nonprofit studies and major social science disciplines to advance the research agenda of quantitatively assessing the societal impact of the nonprofit sector.

References

- Bellemare, M. F., Masaki, T., & Pepinsky, T. B. (2017). Lagged explanatory variables and the estimation of causal effect. *The Journal of Politics*, 79(3), 949-963.
- Benjamin, L. M., Ebrahim, A., & Gugerty, M. K. (2023). Nonprofit Organizations and the Evaluation of Social Impact: A Research Program to Advance Theory and Practice. *Nonprofit and Voluntary Sector Quarterly*, 52(1_suppl), 313S-352S.
- Ben-Ner, A. (2022). The Dark Side of the Nonprofit Sector: Polarization in Contemporary Society, Chapter 20. In *Civil Society: Concepts, Challenges, Contexts*, edited by Michael Hoelscher, Regina List, Alexander Ruser, and Stefan Toepler. Springer.
- Bernauer, T., Böhmelt, T., & Koubi, V. (2013). Is there a democracy–civil society paradox in global environmental governance?. *Global Environmental Politics*, 13(1), 88-107.
- Berrett, J. L., & Holliday, B. S. (2018). The effect of revenue diversification on output creation in nonprofit organizations: A resource dependence perspective. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 29(6), 1190-1201.
- Berrone, P., Gelabert, L., Massa-Saluzzo, F., & Rousseau, H. E. (2016). Understanding community dynamics in the study of grand challenges: How nonprofits, institutional actors, and the community fabric interact to influence income inequality. *Academy of Management Journal*, 59(6), 1940-1964.

- Beyerlein, K., & Hipp, J. R. (2005). Social capital, too much of a good thing? American religious traditions and community crime. *Social Forces*, 84(2), 995-1013.
- Boris, E. T., & Steuerle, C. E. (Eds.). (2006). *Nonprofits & government: Collaboration & conflict*. Washington, D.C.: The Urban Institute.
- Boulding, C. E. (2010). NGOs and political participation in weak democracies: Subnational evidence on protest and voter turnout from Bolivia. *The Journal of Politics*, 72(2), 456-468.
- Brandtner, C. (2020). *City Action: Civic Capacity and the Greening of the American City*. Mansueto Institute for Urban Innovation Research Paper, (20).
- Brandtner, C. (2021). Decoupling under scrutiny: consistency of managerial talk and action in the age of nonprofit accountability. *Nonprofit and Voluntary Sector Quarterly*, 50(5), 1053-1078.
- Brandtner, C., & Laryea, K. (2021). Street smarts and org charts: Professional expertise and the production of urban integration.
- Brandtner, C., & Suárez, D. (2021). The structure of city action: Institutional embeddedness and sustainability practices in US cities. *The American Review of Public Administration*, 51(2), 121-138.

- Brass, J. N., Longhofer, W., Robinson, R. S., & Schnable, A. (2018). NGOs and international development: A review of thirty-five years of scholarship. *World Development*, 112, 136-149.
- Bushouse, B. K., Never, B., & Christensen, R. K. (2016). Elinor Ostrom's contribution to nonprofit and voluntary action studies. *Nonprofit and Voluntary Sector Quarterly*, 45(4_suppl), 7S-26S.
- Card, N. A. (2015). *Applied meta-analysis for social science research*. Guilford Publications.
- Chapman, C. M., Hornsey, M. J., Gillespie, N., & Lockey, S. (2022). Nonprofit Scandals: A Systematic Review and Conceptual Framework. *Nonprofit and Voluntary Sector Quarterly*, 08997640221129541.
- Cheng, Y. (2019). Nonprofit Spending and Government Provision of Public Services: Testing Theories of Government–Nonprofit Relationships. *Journal of Public Administration Research and Theory*, 29(2), 238-254.
- Cheng, Y. D., & Choi, J. H. (2022). Dealing with Endogeneity to Understand the Societal Impact of the Third Sector: Why Should We Care and What Can We Do about It?. Online first at *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 33, 1245-1255.
- Cheng, Y., & Li, Z. (2022). Government-nonprofit partnerships outside the contracting relationship and public funding allocation: Evidence from New York City's park system. *Nonprofit Management and Leadership*, 33(2), 319-344.

- Cheng, Y., Yang, L., & Deng, S. (2022). Nonprofit density and distributional equity in public service provision: Exploring racial/ethnic disparities in Public Park access across US cities. *Public Administration Review*, 82(3), 473-486.
- Clay, L. A. (2014). The influence of community social institutions on individual disaster recovery: A multilevel analysis (Doctoral dissertation, University of Delaware).
- Clemens, E. S. (2006). The Constitution of Citizens: Political Theories of the Nonprofit Organizations. In W. W. Powell and R. Steinberg (eds.), *The Nonprofit Sector: A Research Handbook*, 2d ed. (pp. 208–220). New Haven, CT: Yale University Press.
- Clotfelter, C. T. (Ed.). (1992). Who benefits from the nonprofit sector?. University of Chicago Press.
- Coupet, J., & Schehl, M. (2022). Government Grants, Donors, and Nonprofit Performance. *Journal of Public Administration Research and Theory*, 32(1), 97-110.
- Crubaugh, B. (2018). Not all civic action is equal: Two forms of civic associations and their disparate effects on poverty and poverty segregation. *Sociological Perspectives*, 61(6), 911-933.
- Crubaugh, B. (2021). Neighborhood development organizations and neighborhood disadvantage: race, resources, and inequality in Chicago. *Nonprofit and Voluntary Sector Quarterly*, 50(1), 27-53.

- Danley, S., & Blessett, B. (2022). Nonprofit segregation: The exclusion and impact of White nonprofit networks. *Nonprofit and Voluntary Sector Quarterly*, 51(3), 507-526.
- De Wit, A., & Bekkers, R. (2017). Government support and charitable donations: A meta-analysis of the crowding-out hypothesis. *Journal of Public Administration Research and Theory*, 27(2), 301-319.
- Derose, K. P. (2003). Social capital: What's it good for? Exploring the relationship between community social structure and access to health care. University of California, Los Angeles.
- Desmond, S. A., Kikuchi, G., & Morgan, K. H. (2010). Congregations and crime: Is the spatial distribution of congregations associated with neighborhood crime rates?. *Journal for the Scientific Study of Religion*, 49(1), 37-55.
- DiMaggio, P. (2001). Measuring the impact of the nonprofit sector on society is probably impossible but possibly useful. In P. Flynn & V.A. Hodgkinson (Eds.), *Measuring the impact of the nonprofit sector* (pp. 249-272). Boston, MA: Springer.
- Dolšak, N., & Prakash, A. (2021). NGO Failure: A Theoretical Synthesis. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 1-11.
- Ebrahim, A., & Rangan, V. K. (2014). What impact? A framework for measuring the scale and scope of social performance. *California Management Review*, 56(3), 118-141.

- Emerson, K. (2022). On Theory and Theory Building in Public Administration. *Perspectives on Public Management and Governance*, 5(1), 3-10.
- Flynn, P., & Hodgkinson, V. A. (Eds.). (2001). *Measuring the impact of the nonprofit sector*. Boston, MA: Springer.
- Forbis, J. S. (2013). Organized Civil Society: A Cross-national Evaluation of Non-Governmental Organization Density on Governmental Corruption. *Sociological Focus*, 46(3), 159-177.
- Frumkin, P. (2009). *On Being Nonprofit*. Cambridge, MA: Harvard University Press.
- Gazley, B. (2021). The systematic literature review: Advantages and applications in nonprofit scholarship. Online first at *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*.
- Glass, G. V. (1976). Primary, secondary, and meta-analysis of research. *Educational Researcher*, 5(10), 3-8.
- Gleeson, S. (2009). From rights to claims: the role of civil society in making rights real for vulnerable workers. *Law & Society Review*, 43(3), 669-700.
- Grant, L., & Langpap, C. (2019). Private provision of public goods by environmental groups. *Proceedings of the National Academy of Sciences*, 116(12), 5334-5340.
- Grønbjerg, K. A., & Paarlberg, L. (2001). Community variations in the size and scope of the nonprofit sector: Theory and preliminary findings. *Nonprofit and Voluntary Sector Quarterly*, 30(4), 684-706.

- Haslam, A., Nesbit, R., & Christensen, R. K. (2019, October). The Dynamic Impact of Nonprofit Organizations: Are Health-Related Nonprofit Organizations Associated with Improvements in Obesity at the Community Level?. In *Nonprofit Policy Forum* (Vol. 10, No. 3). De Gruyter.
- Hopewell, S., Clarke, M., & Mallett, S. (2005). Grey literature and systematic reviews. *Publication bias in meta-analysis: Prevention, assessment and adjustments*, 49-72.
- Hung, C., & Hager, M. A. (2019). The impact of revenue diversification on nonprofit financial health: A meta-analysis. *Nonprofit and Voluntary Sector Quarterly*, 48(1), 5-27.
- Hung, C., & Lu, J. (2022). Meta-Analysis for Nonprofit Research: Synthesizing Quantitative Evidence for Knowledge Advancement. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 1-13.
- Isett, K., & Sowa, J. (2022). Editors' Essay: Questioning Our Past, Moving into the Future. *Perspectives on Public Management and Governance*, 5(3), 201-203.
- Jacoby, A. (2018). Social service organizations, discretionary funding, and neighborhood crime rates. *Crime & Delinquency*, 64(9), 1193-1214.
- Jenkins, C. (2006) "Nonprofit Organizations and Political Advocacy," in W. W. Powell and R. S. Steinberg (eds.) *The Nonprofit Sector: A Research Handbook* (2nd edn), New Haven, CT and London: Yale University Press.

- Johns Hopkins Center for Civil Society Studies. (2018). Nonprofit rate of job growth outpaces for-profit rate by over 3-1 over last decade. http://ccss.jhu.edu/wp-content/uploads/downloads/2018/08/NEWS-RELEASE-Labor-Day-2018_8.28.2018.pdf
- Johns Hopkins Center for Civil Society Studies. (2019). The 2019 Nonprofit Employment Report. http://ccss.jhu.edu/wp-content/uploads/downloads/2019/01/2019-NP-Employment-Report_FINAL_1.8.2019.pdf
- Kim, M. (2015). Socioeconomic diversity, political engagement, and the density of nonprofit organizations in US counties. *The American Review of Public Administration*, 45(4), 402-416.
- Kim, M. (2017). The relationship of nonprofits' financial health to program outcomes: Empirical evidence from nonprofit arts organizations. *Nonprofit and Voluntary Sector Quarterly*, 46(3), 525-548.
- Lee, M. R., & Ousey, G. C. (2005). Institutional access, residential segregation, and urban black homicide. *Sociological Inquiry*, 75(1), 31-54.
- Lenz, T., & Shier, M. L. (2021). Supporting transformational social innovation through nonprofit and local government relations: A scoping literature review. *Human Service Organizations: Management, Leadership & Governance*, 45(5), 454-478.
- Lu, J. (2016). The philanthropic consequence of government grants to nonprofit organizations: A meta-analysis. *Nonprofit Management and Leadership*, 26(4), 381-400.

- Meier, K. J., & O'Toole, L. J. (2012). Subjective organizational performance and measurement error: Common source bias and spurious relationships. *Journal of Public Administration Research and Theory*, 23(2), 429-456.
- Meier, K. J., & O'Toole Jr, L. J. (2013). I think (I am doing well), therefore I am: Assessing the validity of administrators' self-assessments of performance. *International Public Management Journal*, 16(1), 1-27.
- Meier, K. J., Winter, S. C., O'Toole Jr, L. J., Favero, N., & Andersen, S. C. (2015). The validity of subjective performance measures: School principals in Texas and Denmark. *Public administration*, 93(4), 1084-1101.
- Morenoff, J. D., Sampson, R. J., & Raudenbush, S. W. (2001). Neighborhood inequality, collective efficacy, and the spatial dynamics of urban violence. *Criminology*, 39(3), 517-558.
- Peck, L. R. (2008). Do antipoverty nonprofits locate where people need them? Evidence from a spatial analysis of Phoenix. *Nonprofit and Voluntary Sector Quarterly*, 37(1), 138-151.
- Reich, R. (2020). *Just giving: Why philanthropy is failing democracy and how it can do better*. Princeton University Press.
- Ressler, R. W. (2020). What village? Opportunities and supports for parental involvement outside of the family context. *Children and youth services review*, 108, 104575.

- Ressler, R. W., Paxton, P., Velasco, K., Pivnick, L., Weiss, I., & Eichstaedt, J. C. (2021).
Nonprofits: A public policy tool for the promotion of community subjective well-being.
Journal of Public Administration Research and Theory, 31(4), 822-838.
- Ringquist, E. (2013). *Meta-analysis for public management and policy*. John Wiley & Sons.
- Rousseau, H. E., Berrone, P., & Gelabert, L. (2019). Localizing sustainable development goals:
Nonprofit density and city sustainability. *Academy of Management Discoveries*, 5(4),
487-513.
- Salamon, L. M. (1987). Of market failure, voluntary failure, and third-party government: Toward
a theory of government-nonprofit relations in the modern welfare state. *Journal of
voluntary action research*, 16(1-2), 29-49.
- Salamon, L. M. (1995). *Partners in public service: Government-nonprofit relations in the modern
welfare state*. Johns Hopkins University Press.
- Salamon, L. M., & Sokolowski, W. (2018). The size and composition of the European third
sector. In *The third sector as a renewable resource for Europe* (pp. 49-94). Palgrave
Macmillan, Cham.
- Salamon, L. M., & Toepler, S. (2015). Government–nonprofit cooperation: Anomaly or
necessity?. *Voluntas: International Journal of Voluntary and Nonprofit
Organizations*, 26(6), 2155-2177.

Salamon, L. M., Hems, L.C., & Chinnock, K. (2000). *The Nonprofit Sector: For What and for Whom?*. Working Papers of the Johns Hopkins Comparative Nonprofit Sector Project, no. 37. Baltimore: The Johns Hopkins Center for Civil Society Studies.

Shandra, J. M., Shandra, C. L., & London, B. (2010). Do non-governmental organizations impact health? A cross-national analysis of infant mortality. *International Journal of Comparative Sociology*, 51(1-2), 137-164.

Shandra, J. M., Shandra, C. L., & London, B. (2010). Do non-governmental organizations impact health? A cross-national analysis of infant mortality. *International Journal of Comparative Sociology*, 51(1-2), 137-164.

Sharkey, P., Torrats-Espinosa, G., & Takyar, D. (2017). Community and the crime decline: The causal effect of local nonprofits on violent crime. *American Sociological Review*, 82(6), 1214-1240.

Slocum, L. A., Rengifo, A. F., Choi, T., & Herrmann, C. R. (2013). The elusive relationship between community organizations and crime: An assessment across disadvantaged areas of the South Bronx. *Criminology*, 51(1), 167-216.

Smith, B. W., Novak, K. J., & Hurley, D. C. (1997). Neighborhood crime prevention: The influences of community-based organizations and neighborhood watch. *Journal of Crime and Justice*, 20(2), 69-86.

- Smith, B. W., Novak, K. J., & Hurley, D. C. (1997). Neighborhood crime prevention: The influences of community-based organizations and neighborhood watch. *Journal of Crime and Justice*, 20(2), 69-86.
- Smith, D. H. (1973). The impact of the voluntary sector on society. In David H. Smith (Ed.), *Voluntary Action Research: 1973*. Lexington, KY: Lexington Books.
- Steinberg, R. (2006). Economic Theories of Nonprofit Organizations. In *The Nonprofit Sector: A Research Handbook, Second Edition*, edited by Walter W. Powell and Richard Steinberg, 277–309. New Haven & London: Yale University Press.
- Taylor, S. E. (1989). *Positive illusions: Creative self-deception and the healthy mind*. Basic Books/Hachette Book Group.
- Teckchandani, A. (2010). *Building a Better Community?: The Role of Banks and Voluntary Associations* (Doctoral dissertation, UC Berkeley).
- Wo, J. C., Hipp, J. R., & Boessen, A. (2016). Voluntary organizations and neighborhood crime: A dynamic perspective. *Criminology*, 54(2), 212-241.
- Young, D. R. (2000). Alternative models of government-nonprofit sector relations: Theoretical and international perspectives. *Nonprofit and voluntary sector quarterly*, 29(1), 149-172.

Table 1: Moderators and Measurement

Moderators	Measurement
Types of Societal Impact	<p>There are seven nonprofit policy domains covered in our literature search: corruption, citizen participation, environment, health care, public safety, economic development, and social welfare. We grouped the health care, public safety, economic development, and social welfare policy domains into the social and economic impact, and coded it as 0. We decided to use the term “social and economic impact” because these two types of impacts are hard to differentiate in empirical studies (e.g., poverty alleviation can be both a social and economic impact). We then grouped the corruption and citizen participation policy domains in the political impact category and coded it as 1. We finally treated the environmental policy domain as the environmental impact category and coded it as 2. These three categories represent social and economic, political, and environmental impact respectively.</p>
Geographical Level of Analysis	<p>We grouped primary studies into three categories. Primary studies that used block, tract, or neighborhood as their unit of analysis are grouped into the neighborhood category; primary studies that used city, county, or metropolitan statistical area as their unit of analysis are grouped into the city/county category; and primary studies that used state, or country as their unit of analysis are grouped into the state/national category. We coded the neighborhood level as the reference group (0), with coefficients for the other two types of regions interpreted in relation to the reference group.</p>

Regression Model Selection	We coded basic regression models as 0 (the reference group), fixed-effects models as 1, and quasi-experimental models as 2, and tested whether this categorization represents a statistically significant difference.
Lagged vs. Non-Lagged Explanatory Variables	We coded a moderator as 1 for models that used lagged explanatory variables and 0 for those that used non-lagged ones.
Subjective vs. Objective Measures of Societal Impact	To test if the positive bias in self-assessments exists in the nonprofit impact scholarship, we created a moderator. This moderator is coded 1 for studies that use subjective measures and 0 for studies that use objective measures.
The Number of Nonprofits vs. Nonprofit Density	We created a moderator to test whether the influence of the nonprofit sector varies according to how analysts measure nonprofit sector size. This moderator is coded 1 for models that use nonprofit density and 0 for models that use the number of nonprofits to measure nonprofit sector size.
Publication Bias	We coded the moderator as 1 for published studies and 0 for unpublished ones.
Publication Time	We coded publication time as the year an article was published.

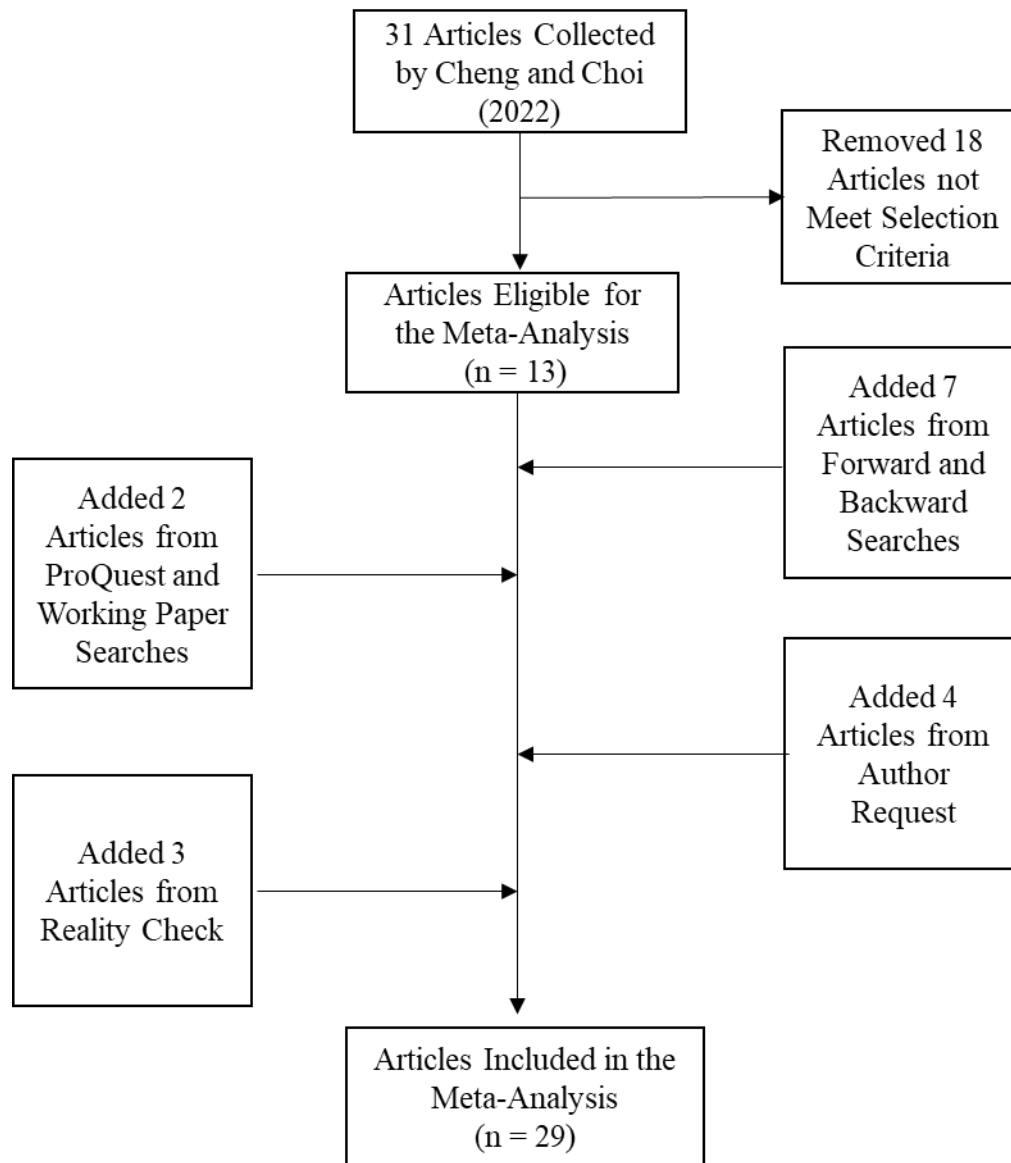
Table 2: Random-effects Cluster Robust Variance Estimator (CRVE) Model Results (n= 29 studies, 357 effects)

Moderator	Model 1	Model 2	Model 3	Model 4
Types of Societal Impact				
(Reference: Social and Economic Impact)				
Political Impact	.20**	.23**	.27**	.26**
	(.03)	(.04)	(.10)	(.08)
Environmental Impact	.16	.21	.19	.18
	(.12)	(.15)	(.12)	(.11)
Geographical Level of Analysis				
(Reference: Block, Tract, or Neighborhood)				
City, County, or Metropolitan Area			.10**	.12**
			(.03)	(.04)
State or Country			-.01	.03
			(.16)	(.15)
Regression Model Selection				
(Reference: Basic Models)				
Fixed-Effects			.18*	.14*
			(.08)	(.06)
Quasi-Experimental Designs			.16*	.12*
			(.08)	(.05)
Lagged vs. Non-Lagged Explanatory Variables				
(Reference: Non-Lagged)				
			-.13	-.14
			(.08)	(.08)

Subjective vs. Objective Measures of Societal Impact				.08 (.04)
(Reference: Objective Measures)				
The Number of Nonprofits vs. Nonprofit Density				-.06 (.04)
(Reference: The Number of Nonprofits)				
Publication Bias		.10 (.09)	.07 (.07)	.06 (.07)
Publication Time		.01 (.01)	-.01 (.01)	-.01 (.01)
Constant	.01 (.02)	-1.93 (6.72)	10.30 (11.49)	9.88 (11.76)
<i>F</i>	19.45**	16.02**	17.33**	25.51**
<i>R</i> -squared	.17	.18	.29	.31

Note: N = 357 observations; Robust standard errors in parentheses; * $p \leq .05$, ** $p \leq .01$

Figure 1. Primary Study Collection and Selection Process



Appendix 1: Selected Studies, Effects, and Moderator Characteristics (n = 29 Studies, 357 Effects)

Study	Number of Effects	Average Effect Size	Weight (%)	Type of Societal Impact	Geographical Level of Analysis	Regression Model Selection	Lagged Variables	Sector Size Measures	Impact Measures	Publication Bias
Bernauer, T., Böhmelt, T., & Koubi, V. (2013).	4	0.60	0.34	Environment	State/National	Fixed-Effects	No	Number of NPOs	Objective	Published
Berrone, P., Gelabert, L., Massa-Saluzzo, F., & Rousseau, H. E. (2016).	1	0.04	0.31	Social	City/County	Quasi-Experiments	Yes	NPO Density	Objective	Published
Beyerlein, K., & Hipp, J. R. (2005).	18	0.08	6.38	Social	City/County	Basic Models	No	NPO Density	Objective	Published
Boulding, C. E. (2010).	6	0.20	0.85	Political	City/County	Basic Models	Yes	Number of NPOs	Objective	Published
Brandtner, C. (2021).	13	0.05	5.39	Environment	City/County	Various	Yes	Number of NPOs	Objective	Unpublished
Brandtner, C., & Laryea, K. (2021).	9	0.17	3.19	Political	City/County	Basic Models	Yes and No	NPO Density	Objective	Unpublished
Brandtner, C., & Suárez, D. (2021).	2	0.08	0.63	Environment	City/County	Basic Models	Yes	Number of NPOs	Objective	Published
Cheng, Y., Yang, L., & Deng, S. (2022).	10	0.05	3.37	Social	City/County	Basic Models	No	NPO Density	Objective	Published
Clay, L. A. (2014).	2	0.03	0.36	Social	Neighborhood	Basic Models	No	Number of NPOs	Subjective	Unpublished
Crubaugh, B. (2018).	6	0.02	2.31	Social	Neighborhood and City/County	Fixed-Effects	No	Number of NPOs	Objective	Published
Crubaugh, B. (2021).	2	-0.02	0.65	Social	Neighborhood	Fixed-Effects	No	Number of NPOs	Objective	Published

Derose, K. P. (2003).	3	0.05	0.74	Social	City/County	Basic Models	No	NPO Density	Objective	Unpublished
Desmond, S. A., Kikuchi, G., & Morgan, K. H. (2010).	48	-0.03	8.25	Social	Neighborhood	Basic Models	No	NPO Density	Objective	Published
Forbis, J. S. (2013).	11	.26	1.35	Political	State/National	Various	Yes and No	Number of NPOs and NPO Density	Subjective	Published
Gleeson, S. (2009).	1	0.20	0.14	Political	State/National	Basic Models	No	NPO Density	Objective	Published
Grant, L., & Langpap, C. (2019).	3	0.00	1.17	Environment	City/County	Fixed-Effects	Yes	Number of NPOs	Objective	Published
Haslam, A., Nesbit, R., & Christensen, R. K. (2019).	4	0.02	1.63	Social	City/County	Fixed-Effects	Yes	NPO Density	Objective	Published
Jacoby, A. (2018).	3	-0.68	0.90	Social	Neighborhood	Basic Models	No	NPO Density	Objective	Published
Lee, M. R., & Ousey, G. C. (2005).	6	0.18	0.86	Social	City/County	Basic Models	No	NPO Density	Objective	Published
Morenoff, J. D., Sampson, R. J., & Raudenbush, S. W. (2001).	14	-0.01	1.90	Social	Neighborhood	Basic Models	No	Number of NPOs	Objective	Published
Peck, L. R. (2008).	3	0.00	0.66	Social	Neighborhood	Basic Models	Yes and No	Number of NPOs	Objective	Published
Ressler, R. W. (2020).	2	0.01	0.82	Political	Neighborhood	Basic Models	Yes	NPO Density	Subjective	Published
Ressler, R. W., Paxton, P., Velasco, K., Pivnick, L., Weiss, I., & Eichstaedt, J. C. (2021).	40	0.08	11.63	Social	City/County	Fixed-Effects	Yes	NPO Density	Subjective	Published

Rousseau, H. E., Berrone, P., & Gelabert, L. (2019).	4	0.11	1.09	Environment	City/County	Various	Yes	NPO Density	Objective	Published
Shandra, J. M., Shandra, C. L., & London, B. (2010).	8	-0.21	0.35	Social	State/National	Fixed-Effects	Yes	NPO Density	Objective	Published
Sharkey, P., Torrats- Espinosa, G., & Takyar, D. (2017).	54	0.06	18.76	Social	City/County	Various	Yes	Number of NPOs	Objective	Published
Slocum, L. A., Rengifo, A. F., Choi, T., & Herrmann, C. R. (2013).	17	-0.01	0.76	Social	Neighborhood	Basic Models	No	Number of NPOs	Objective	Published
Smith, B. W., Novak, K. J., & Hurley, D. C. (1997).	3	-0.23	0.10	Social	Neighborhood	Basic Models	No	Number of NPOs	Objective	Published
Wo, J. C., Hipp, J. R., & Boessen, A. (2016).	60	0.01	25.11	Social	Neighborhood	Fixed-Effects	Yes and No	Number of NPOs	Objective	Published
Total (Overall)	357	.04	100							

Appendix 2: Correlations among the Moderators

Moderators	1	2	3	4	5	6	7	8
1 Types of Societal Impact	-							
2 Geographical Level of Analysis	-.39	-						
3 Regression Model Selection	-.01	-.34	-					
4 Lagged vs. Non-Lagged Explanatory Variables	.20	-.34	.71	-				
5 The Number of Nonprofits vs. Nonprofit Density	-.08	-.26	-.35	-.26	-			
6 Subjective vs. Objective Measures of Societal Impact	.01	-.35	.18	.29	.40	-		
7 Publication Bias	-.54	.14	.16	-.07	.01	.06	-	
8 Publication Time	.22	-.23	.53	.61	-.06	.36	-.18	-

Note. N = 357 observations.