Does Additional Mandatory Reporting Alter Charity or Donor Behavior? Examining the 2006 Pension Protection Act

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Abstract

Financial disclosure requirements are common accountability measures placed on publicly funded organizations. However, the impact of financial disclosure requirements on organizational structure or on financial contributors' behavior is not well understood in the context of nonprofit organizations. I explore this question by analyzing mandatory Form 990-T disclosure included in the Pension Protection Act. This contributes to the understanding of organizational and financial contributor response to mandatory disclosure in an environment already requiring operation data disclosure. I use a difference-in-differences approach, comparing organizations filing a Form 990-T at least once in the three years prior to passage to those who did not. I find that one in four filing organizations create a subsidiary in the following two filing years. Subsidiary tax filings are not subject to disclosure, indicating that nonprofits can restructure their organizations in a manner allowing them to circumvent disclosure requirements. While charities alter their organizational structure, I find no evidence of net changes in donor behavior towards charities, as aggregate total contributions and government grants received do not change.

Keywords: Financial Disclosure, Nonprofit Organizations, Form 990-T, Taxable Subsidiaries

JEL Classification: D64, G38, H80, L30, M48

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1. Introduction and Literature Review

How do charities and their donors respond to mandatory financial disclosure requirements? This question is of importance to economists and policymakers as financial disclosure requirements are a commonly suggested policy to increase organizational transparency and accountability. The economics and accounting literatures have both shown that financial disclosure can positively impact firm efficiency and environmental impact (Mobus, 2005; Doshi et. al., 2013, Li and Yang, 2016; Ioannou and Serafeim, 2019). However, none of these papers examine the context of nonprofit organizations where donors may be motivated to donate for reasons outside of charity financial performance.

To answer this question in the context of nonprofit organizations, I examine a change in disclosure laws contained within the 2006 Pension Protection Act (PPA). Annually, charity organizations must make their Form 990 available for public inspection, detailing the financial activities of a charity in a given year including both gross and net unrelated business income (IRS, 2017b). With the intention of increasing transparency of financial information for donors, the PPA mandated tax returns on unrelated business income, filed on a Form 990-T, be publicly disclosed (United States Congress, 2006a). I use the disclosure requirement in the PPA as a natural experiment to answer how mandatory financial disclosure of additional financial documents impacted charities and subsequently donors. I do so through a difference-in-differences analysis and an event study analysis using the National Center for Charitable Statistics IRS Statement of Income files data. In examining how mandatory Form 990-T disclosure affects charity organizational structure and impacts donor behavior, I contribute to the understanding of how organizations and their financial contributors respond to mandatory financial disclosure in an environment with high disclosure requirements already in place.

Mandatory disclosure of the Form 990-T appears to have altered charity organizational structure. Sec 1225 of the PPA only addresses Form 990-T filings, and not the filings of charity taxable subsidiary organizations (Yetman and Yetman 2008; Brody, 2012). As such, Yetman and Yetman (2008) and Brody (2012) both hypothesized that subsidiary activity would increase, as Form 990-T

filing organizations would have the incentive to take on the cost of subsidiary creation in order to circumvent the PPA's disclosure requirements. I contribute to the literature by finding evidence supporting these hypotheses, demonstrating that nonprofit organizations restructured their organizations in a way that complies with the disclosure requirement but was unintended by legislators. In comparing organizations who filed a Form 990-T at least once in the three years prior to the passage of the PPA compared to those who never file a Form 990-T in the three years prior to the passage of the PPA, I find that for the next two years after passage, nearly one out of every four charities who filed a Form 990-T at least once prior to the PPA created a new subsidiary organization. Charities reorganizing in this manner is in line with the incentives created by the PPA, but is also an unintended consequence of the PPA.

Furthermore, through descriptive analysis, I am able to show that PPA passage coincided with a change in organizations earning unrelated business income, with smaller charities who had previously not participated in unrelated business income generating activities entering into the market space, and larger organizations who had previously earned unrelated business income exiting out of those activities at the same time that subsidiary usage increased for those organizations. If charities are moving their unrelated activities to newly created subsidiaries as a result of the Form 990-T disclosure requirement, the requirement will have resulted in donors having less operational data available to them, as both gross and net unrelated business income were reported on the Form 990 beginning in filing year 2003 while subsidiary income continues to not be reported. Combined, my results contribute to the philanthropy, public economics, and accounting literatures by demonstrating a different way that charities change their organizational structure in response to regulation. A large literature shows that nonprofits will shift expenses to avoid taxation (Yetman, 2001; Omer and Yetman, 2003; Hoffman, 2007; Omer and Yetman, 2007). Additionally, the philanthropy, public economics, and taxation literatures demonstrate that 501(c)3 organizations will undergo costly activities to comply with new regulations; however, these organizations will also will manipulate their income and net assets to appeal more to donors, to file a Form 990-EZ instead of a Form 990, and to avoid audits mandated by certain states (Marx, 2015; Hoffman and McSwain, 2013;

St. Clair, 2016; Marx, 2018; Homonoff et. al., 2020).

From the donor's perspective, the Form 990-T disclosure requirement appears to be in line with the literature on donor preferences, as research shows that donors care about the activities that charities undertake. Much of the charitable giving literature shows that donors want their donations to go towards program services instead of management expenses or fundraising, and donors will penalize charities who have high levels of fundraising expenses (Bowman, 2006; Gneezy et. al., 2014; Meer, 2014; Barber et. al., 2021). Additionally, donors reward charities rated highly by third party rating services such as Charity Navigator with higher levels in donations, while penalizing charities rated lowly by third party rating services with lower donations (Gordon et. al., 2009; Grant, 2021).[1] Furthermore, charities have also been shown to change their behavior in response to mandated disclosure requirements and to the criteria of third party rating services.[2] However, there is a potential limitation to the effectiveness of mandatory Form 990-T disclosure and subsequent subsidiary creation changing donor behavior, as survey analysis finds only 35% of donors research a charity before donating (Hope Consulting, 2010). Furthermore, Herman and Rendina (2001) in a survey of donors find that donors are not concerned with charities being funded by subsidiary organizations

In analyzing how donor behavior changes in response to Form 990-T disclosure and subsequent charity reorganization, I find that donors do not appear to respond over the long-run to the new information provided by the disclosed Form 990-T. I find no meaningful changes in total contributions or receipt of government grants seven filing years after passage, with the exception of total contributions briefly increasing in 2006 and 2007. Furthermore, I do not find any evidence

[1] This reward; however, is less significant for larger charities, more known than smaller, lesser known charities (Yörük, 2016). Additionally, Frumkin and Kim (2001) show that donors reward charity reputation and positioning more than efficiency.

[2] Duff and Portillo (2017), show that being listed on the third-party rater "Charity Navigator" will result in a decrease in a charity's fundraising ratio by 0.43%, while program expense ratios increase by 1.02%. This is not surprising, as Charity Navigator looks at how funds are allocated in assigning ratings, rewarding program expenses and punishing other expenses (Charity Navigator, 2016). However, Charity Navigator (2016) does not use information from the Form 990-T in their evaluations of charities. It also appears that Charity Navigator (2016) does not use subsidiary filings in their ratings process. This is in line with other third party evaluating agencies like Charity Watch (2021) and the Better Business Bureau (2021).

supporting a change in donor behavior in response to nonprofit subsidiary creation in using a triple difference analysis. Combined, my results on donor behavior contribute to the literature on donor behavior by analyzing how behavior changes with additional financial disclosure requirements, and finding a lack of change in donor preferences, providing supporting evidence to Herman and Rendina's (2001) results.

2. Charity Reforms of the 2000s

The Pension Protection Act (PPA) was the first of two major changes to charity filing standards in the mid-2000s.[3] Sec 1225 of the PPA was included to ensure that charities could not hide financial information that their donors may find harmful (Joint Committee on Taxation, 2006). To better understand the charity reforms of the 2000s, specifically the legislation of interest Sec 1225 of the PPA, I describe the Form 990, Form 990-T, and unrelated business income below.

Annually, charities must file their business activities with the IRS by submitting a Form 990 (IRS, 2017b).[4] All charities filing a Form 990 (including a Form 990-EZ or a Form 990-N) must make the document available for public inspection. Some charities earn additional income from sources that are not directly related to their charitable mission, referred to as unrelated business income by the IRS, which the federal government taxes at normal business income rates (IRS, 2019b). These activities are usually done to provide the organization with additional revenue to help fund their operations, particularly in economic conditions where donations decrease, and the unrelated income can be used to finance any organizational expense (American Bar Association, 2014; Wong, 2020; Fritz, 2020). [5] In order to be considered unrelated business income, an activity

[3]The other major change being Form 990 redesign (IRS, 2008a). Form 990 reform was pursued in an effort to build more charity transparency (Coffman, 2007). Included in the changes was a differing schedule for disclosure of related organizations, which was compared to public disclosure of the Form 990-T (Coffman, 2007).

[4]The specific form filed between the Form 990, Form 990-EZ ,and Form 990-N depends upon organization size. For the purposes of this paper, I will be focusing on charities large enough to file the Form 990 outright.

[5]The Form 990 does not specify what revenue sources fund specific expenses, making it impossible to determine what expenses were funded through revenue sources like program service revenues and those that were funded through unrelated activities.

must meet three specific criteria. The activity must be: a trade or business,[6] regularly conducted,[7] and not substantially related to the charity's tax exempt purpose[8] If the activity does not meet one these definitions, it is not considered unrelated business income.[9] Activities exempted from being considered unrelated business income include volunteer labor, activities conducted for the convenience of members (such as a school cafeteria), the selling of donated merchandise, and bingo (IRS, 2019d).[10]

Organizations earning unrelated business income can either file a Form 990-T tax return or form a taxable subsidiary organization to perform all business generating unrelated business income (Yetman and Yetman, 2008). The accounting literature has shown that substantial expense shifting occurs, moving expenses to the unrelated taxable income generating activities or to taxable subsidiaries to reduce the charity's tax burden (Yetman, 2001; Omer and Yetman, 2003; Hoffman, 2007; Yetman and Yetman, 2008).[11] The PPA does not address subsidiary filings, meaning subsidiary filings are not required to be publicly disclosed (Yetman and Yetman 2008; Brody, 2012). Given the cost shifting findings and the difference in disclosure requirements and the change in in-

[6]"Trade or business" refers to any activity conducted with the purpose of generating income. This can include selling goods or services but is also broad enough to include any type of activity performed with the intent to make a profit (IRS, 2019e). Because of how broad this definition is, most organization activities meet this first requirement.

[7]"Regularly conducted" refers to activities that are frequently and continually conducted in a manner similar to other activities done commercially by enterprises subject to business taxes (IRS, 2019e). The activity must meet both parts of this definition to be considered regularly conducted.

[8]"Not substantially related" to the tax exempt purpose of the charity. This means that the activity does not contribute substantially to the reasoning why an organization is tax exempt in the first place, excluding fundraising (IRS, 2019e). Organizations with unrelated business income generating activities tend to be larger in operational scope, as well as in size compared to other nonprofit organizations (Hines, 1999; Teasdale et. al., 2013). The tax policy defining unrelated business income was created after public outcry from tax paying businesses claimed they faced unfair competition from charities, with the famous example being New York University owning Mueller Macaroni (Ascher, 2014). As an example, a gift shop at an art museum is not substantially related to the tax exempt purposes of that museum.

[9]The IRS offers an interactive instructional video demonstrating, among other things, how the same activity can be considered unrelated business income in some situations but not others. Additionally, IRS has acknowledged that the process of determining what activities are considered income is difficult in Congressional testimony (McDowell, 2008).

[10]Additional exemptions for public inspection exist, including a specific series of documents ranging from the return by a U.S. transferor of property to a foreign corporation to a report of employer-owned life insurance contracts (IRS, 2019c).

[11]Additionally, studies such as Brickley and Van Horn (2002) showed that for-profit and nonprofit hospitals faced the same incentive scheme, despite nonprofits paying less tax due to their exempt status and ability to cost shift driving their net unrelated business income down.

centives for nonprofit operations to use subsidiaries compared to keeping unrelated activity within the nonprofit organizations, multiple authors expected the number of subsidiary organizations to increase after PPA passage (Yetman and Yetman 2008; Brody, 2012).

3. Data

For my analysis, I use data from the National Center for Charitable Statics (NCCS)'s database of IRS Statistics of Income (SOI) Division Exempt Organizations Sample Files. This data is an archive of all the Form 990 tax data collected from 501(c)(3) organizations with at least $30 million in assets in a given tax year, along with a sample of smaller nonprofit organizations, with sample weights varying by asset size (NCCS, 2013). Due to its importance to the policy being analyzed, I restrict my analysis to years where levels of unrelated business income was reported on the Form 990. Gross and net unrelated business income began being reported on the Form 990 in filing year 2003, and the final year available for the SOI files is 2012, giving me 10 years of data to use. The original dataset consists of 143,756 total observations. As two of my outcomes are financial in nature, I drop all charities not using accrual accounting, charities who do not have their financial statements audited, and organizations marked as out of scope by the NCCS per recommendations in the literature and by the NCCS (Bowman et. al., 2012; Hoffman and McSwain, 2013; NCCS, 2013). Dropping these observations is necessary in order to accurately compare financial reporting across charitable organizations.

The sampling categories are based on asset sizes, meaning that some organizations may be present in my sample more or less frequently after the PPA passed as asset values change over time. These organizations may organize themselves differently depending upon their growth patterns in relation to when the legislation passed. Finally, due to the heterogeneity in the nonprofit sector, it is possible that comparing observations between smaller organizations (for example, a local animal shelter) and a large organization (for example, a university hospital system) would produce results unhelpful for analyzing the impact of mandatory disclosure on donors and charities. Therefore, in order to create a balanced panel and compare organizations of similar size across the panel, I drop

all charities in the NCCS data over 2003-2012 that do not annually meet the highest asset threshold and those who are not present in the dataset over the entirety of the panel. This leaves me with 10 years of 3,807 charity observations, or 38,070 total observations.[12]

These data restrictions restrict my results to be representative only of larger charities. While this implies that my analysis will not be representative of the whole of nonprofit organizations, or even the majority of organizations, they are still instructive for two different reasons. First, large nonprofit organizations make up the majority of charitable activity measured by expenses. Despite only representing 5.3% of public charities filing a Form 990, organizations with over $10,000,000 in expenses represent 87.7% of all charitable expenses in the sector (McKeever, 2018). Within my sample, 88.7% of all observations are over this threshold. Secondly, large organizations are those most likely to generate unrelated business income, making my subsample of large charitable organizations of greatest interest when evaluating the mandated disclosure of the Form 990-T (Hines, 1999; Teasdale et. al., 2013).

My outcome variables of interest are number of subsidiary organizations to measure charity organization structure, along with log of total contributions and log of government grants to measure donor behavior. The change in subsidiary level demonstrates any additional subsidiaries created as a result of the PPA's differing treatment of taxable subsidiary filings and filings for unrelated business income. Due to changes in how subsidiary data was collected after the 2008 Form 990 redesign, I am only able to compare the number of subsidiary organizations through filing year 2007.[13] As the PPA immediately went into effect after signed into law, this gives me two filing years of outcomes for the number of subsidiary organizations. In measuring donor behavior, to-

[12]Despite my concern of comparing organizations of different size and scopes, one could argue that it is equally problematic to throw out this much data. To ease this concern, I run all of the analyses discussed in this paper over the full dataset using the probability weighting provided by the NCCS. As organization size changes over time, some organizations change weighting over time. In order to run panel data analysis, I weight organizations by their modal probability weight. Results are listed in the Supplemental Appendix E and are quantitatively similar to the main results listed in the paper.

[13]The way in which the IRS counts subsidiary organizations changes after 2007, with new data categories on number of total taxable partnerships, number of total taxable corporations or trusts, and number of disregarded entities (IRS, 2008 b,c,d; IRS, 2019a). These had previously been under a single variable prior to 2008 (IRS, 2007a,b). As the count spikes dramatically after filing year 2008 for both Form 990-T always filers and never filers, I restrict my analysis on number of subsidiary organizations to filing year 2007.

tal contributions give an idea on how support for charities as a whole changed as a result of the mandatory disclosure of their Form 990-T, while government grants demonstrate how much of the total contribution response specifically stems from government funding. The measurement of total contributions also changed in 2008 to include dues and memberships, in addition to the previously included direct and indirect public support and government grants. Thus, to ensure that I am comparing similar numbers across time, I combine these numbers from the pre-2008 Form 990 as total contributions.

To explore the possibility of comparing charities filing a Form 990-T at least once in the three years prior to PPA passage compared those who never file a Form 990-T in the same time frame, I construct a balance table for control variables, which can be found in Table 1. For any zero values before the log transformation, I assign a zero for the log transformed variable. A quick examination of Table 1 shows that organizations who do not file a Form 990-T prior to the PPA are on average smaller on every organizational financial category examined in this paper, matching the findings of Hines (1999) and Teasdale et. al. (2013). This continues after the PPA passage in 2006. However, Table 1 also shows that with the exception of fundraising expenses and end of year assets, no major financial operation variables significantly change in a difference in differences framework. Furthermore, the change in fundraising can likely be explained by the shifting of accounting expenses, as total expenses in aggregate do not change between the control and treatment group before and after PPA passage. As such, I do not find evidence in the raw data that non-filing charities cannot be a counterfactual to charities who filed a Form 990-T at least once prior to PPA passage.

4. Empirical Strategy

4.1. Difference-in-Differences Specification

Traditional OLS regression of number of subsidiary organizations, total contributions, and government grants on PPA passage would likely yield biased estimates from either simultaneity or omitted-variable bias. As an example, charitable giving tends to be pro-cyclical with stock market

growth, eliminating the ability to make causal claims on contributions before and after the passage of the PPA (List, 2011; List and Peysakhovich, 2011). Therefore, to understand how the mandatory Form 990-T disclosure causally impacted charity organizational structure, as well as donor behavior, I use a difference-in-differences framework.

In order for this strategy to be valid, my control and treatment groups must satisfy the parallel trends assumption. This assumption requires that filing and non-filing organizations must be on parallel trends with a reasonable assumption that the trends would remain parallel without PPA passage. Figure 1 plots the trends of both filing and non-filing organizations for my outcome variables of interest: number of charity subsidiary organizations, total contributions and government grants. Organizations in the treatment group filing a Form 990-T at least once before PPA passage have a greater number of subsidiary organizations and receive more contributions and grants than organizations who never file a Form 990-T before PPA passage. However, in filing years 2003-2005, each of these variables appears to be on a similar trend between the control and treatment groups. Additionally, it appears that the trend line remains similar for the control group in each of my outcome variables of interest. Finally, the parallel trend assumption will later be shown to not be violated in an event study framework.

Further bolstering the assumption that my control and treatment groups would continue to operate on parallel trends without PPA passage, the PPA itself appears to have plausibly exogenous timing. It was proposed on July 28th and signed into law on August 17th (United States Congress, 2006). Charity reforms were originally not considered in the initial drafting process of the PPA; however, on July 21st, Chairman Grassley, Ranking Member Baucus, and IRS Commission Everson successfully campaigned President Bush in a letter to support including charity reforms in the PPA (Senate Finance Committee, 2006). The passage of the PPA resulted in the immediate enactment of Form 990-T reporting laws, requiring Form 990-T disclosure for filing year 2006 after the August 17th signing (United States Congress, 2006; IRS, 2017a,b). The largest threat to PPA exogeneity comes from the initial proposal of Form 990-T disclosure requirements in a Senate Finance Committee investigation into charity malpractice in 2004 (Nonprofit Quarterly, 2004).

However, this recommended policy was tabled and not proposed in legislation for the remainder of this iteration of Congress. Due to the lack of Congressional action after the hearings concluded and the lack of discussion of how subsidiary organizations would be treated in any potential future legislation, it seems reasonably unlikely that charities would be able to expect a new law mandating Form 990-T disclosure or the different treatment it would provide subsidiary organizations. Therefore, given the timing of the PPA's path to passage and the lack of trend violations prior to passage, it appears that the parallel trends assumption for valid causal inference using a difference-in-differences framework is unlikely to be violated.

Based on the structure of Sec 1225 of the PPA, I assign a treatment group of charities filing a Form 990-T in one of the three years prior to PPA passage with a control group for charities who never file a Form 990-T prior to PPA passage. In examining charity organizational structure, I analyze the pre and post PPA number of subsidiary organizations belonging to a charity filing a Form 990-T prior to the PPA passage relative to the control group of charities not filing a Form 990-T prior to the PPA. For the donor response measure, I analyze the log of total contributions and log of government grants received by a Form 990-T filing charity before and after PPA passage relative to the control group of non-filers. My difference-in-differences model takes the following form:

$$y_{it} = \alpha_i + \gamma_t + \delta(f990t * PPA)_{it} + X_{it}\beta + \epsilon_{it}$$

Here, y_{it} represents the outcome variables of interest; α_i represents individual charity fixed effects; and γ_t represents year fixed effects. Additionally, the matrix X_{it} represents control variables such as logged program service revenue, logged assets and liabilities at the beginning and end of year, as well as logged expenses including total and fundraising expenses. These organizational controls are necessary inclusions as they are directly correlated with my outcome variables, particularly contributions and fundraising. The variable $(f990t * PPA)_{it}$ represents an interaction between charities filing a Form 990-T prior to the passage of the PPA and filing years 2006-2012, the treatment period of mandatory Form 990-T disclosure. For number of subsidiary organizations, the $(f990t * PPA)_{it}$ interaction term only represents filing years 2006 and 2007, due to

the changes in the Form 990 outlined in the data section. Finally, ϵ_{it} represents standard errors robust to heteroskedasticity and clustered at the charity level. [14] The coefficient of interest in all regressions is δ, as this shows the average treatment effect of the PPA. [15]

4.2. Event Study Specification

The differences-in-differences strategy outlined above provides an average treatment effect for the seven filing years following the PPA passage.[16] However, as the effect is an average over seven years, this specification renders it impossible to determine immediate actions that were undertaken by donors or charities after PPA passage. Additionally, my difference-in-differences specification does not allow me to determine the persistence of immediate changes over time. To rectify these problems, I modify my difference-in-differences estimation framework to an event study framework of the following form:

$$y_{it} = \alpha_i + \gamma_t + \Sigma_{p \neq -1} \delta_p 1(t - PPA = p) + X_{it}\beta + \epsilon_{it}$$

where PPA refers to the 2006 passage of the PPA, and $1(t - PPA = p)$ refers to an indicator variable indicating when charity i is p years away from the mandatory disclosure treatment. As 2005, the year before PPA passage, is my base year for all treatments, I omit this year from treatment. In addition to providing insights on behavioral changes by the charities and donors, the event study specification allows me to test if individual years are violating the parallel trend assumptions directly.

[14] As recommended by Bertrand et. al. (2004).

[15] I also have results extending pretrends to 2000 in Supplemental Appendix D for the main variables of interest. I cut off at the year 2000 due to the SOI lifting their threshold from $10 million to $30 million for all charities to be included in the dataset. My results are similar to the main results in the paper.

[16] The exception outcome for this is number of subsidiary organizations, in which the difference-in-differences strategy provides the average treatment effect over the next two filing years.

5. Results

5.1. Charity Organizational Structure Results

Beginning with my results from the difference-in-differences analysis in Table 6, I find that charities change their behavior in terms of number of subsidiary organizations. Over the 2006 and 2007 filing years, Form 990-T filing organizations increased their number of subsidiaries by an average of 0.226 subsidiary organizations compared to organizations who do not earn unrelated business income. As the pre-existing trend difference prior to filing year 2006 is roughly 0.805 subsidiary organizations, this increase represents an approximate 28.1% increase in number of subsidiary organizations, or approximately one out of every four Form 990-T filing organizations creating a new subsidiary organization per year in the two years after PPA passage. This result is robust to spurious correlation concerns as shown through a placebo analysis similar to Chetty et al. (2009), the inclusion of charity organization type fixed effects, the inclusion of state fixed effects, removing charities from the dataset who changed their filing status after PPA passage, and would require 34.835 times the magnitude of covariation between number of subsidiaries and observed variation to render the average treatment effect indistinguishable from zero using coefficient ratios similar to Altonji et. al. (2005) and Bellows and Miguel (2009).[17] Unfortunately,

[17]Robustness checks are fully detailed and discussed in Supplemental Appendix A, with figures included in Supplemental Appendix B and tables included in Supplemental Appendix C. The measure of coefficient sensitivity I use is less commonly used in economics now in favor of the Oster (2019) coefficient sensitivity test. This test is built upon the Altonji et. al. (2005) and Bellows and Miguel (2009) measures by empirically determining the explained variance through the R^2 statistic, compared to the minimum of a maximum R^2 level or one. The reliance on the R^2 statistic in analysis using Form 990 data is one of the main drivers of my preference for the Altonji et. al. (2005) and Bellows and Miguel (2009) statistic for this analysis. Oster (2019) discusses situations where R_{Max} would be less than one, specifically mentioning situations with measurement error. This type of error has been well documented in Form 990 data (Gordon et. al., 2007; Omer and Yetman, 2007). Furthermore, as shown in Table 1 of the main paper, my charity operation controls are relatively time invariant. While helpful in demonstrating that charities were not undergoing significant changes to the overall organizational structure while increasing subsidiary organizations, this contributes to a low within R^2 in my estimates. As such, the R_{Max} level is likely less than one. To avoid assigning an arbitrary R_{Max}, I estimate a model using a large mix of revenue, expenses, assets, and liabilities controls to explain as much variation as humanly possible with the data available from the pre-2008 version of the Form 990. Under this model, I estimate a maximum within variation $R^2 = 0.0502$. The treatment effect in this model is still positive and statistically different from zero. Using the estimated R^2 level as my R_{Max}, I find an Oster (2019) δ coefficient equal to 0.963, indicating that variation in the unobservables would have to be nearly the same, but slightly less important as the observed data to render my average treatment effect zero. Therefore, while I cannot rule out that the Oster (2019) test is picking up on omitted variable bias that the Bellows and Miguel (2009) / Altonji et. al. (2005) ratio is missing, I demonstrate that unobservable operation characteristics at minimum would have to be nearly the strength of my observed variation to

due to differences in how subsidiary data was collected after the 2008 filing year redesign of the Form 990 (IRS, 2008a), it is impossible to tell if this magnitude difference was a temporary impact or if this difference continued to change over time.

My event study analysis graphed in Figure 2 demonstrates that estimates for 2003 (t-3) and 2004 (t-2) are statistically insignificant for number of subsidiary organizations. As such, I fail to identify violations of parallel pre-trends in organizational structure in my control and treatment groups. Furthermore, event study analysis demonstrates that Form 990-T filing organizations immediately began creating more subsidiaries after PPA passage and increased their number of subsidiary organizations at an increasing rate in the following year. In 2006 Form 990-T filing organizations increased their average number of subsidiaries by 0.162 over baseline, representing a 20.1% increase compared to pre-trend differences. However, this result is not robust to removing charities who changed their Form 990-T filing status after the passage of the Pension Protection Act. New subsidiary creation increased in filing year 2007, as Form 990-T filing organizations increased their average number of subsidiaries by 0.336, representing a 41.7% increase in subsidiary organizations compared to pre-trend differences. This result is robust to removing charities who changed their Form 990-T filing status, as well as a 12% deviation from parallel trends using the statistical test developed by Rabachan and Roth (2019) which is plotted in Figure 3.

5.2. Donor Behavior Results

Starting again with the difference-in-differences results reported in Table 6, I find that revealing activities listed on the Form 990-T does not appear to have altered donor decisions in aggregate. Total contributions to Form 990-T filing charities have a near zero magnitude effect and are not statistically different from no change after PPA passage. Additionally, I do not find any statistical difference in government grants received by Form 990-T filing charities. Therefore, seven filing years after passage, there is a lack of evidence for a donor response to charities making their Form 990-T public.

render my results statistically insignificant.

Turning to the results of my event study specification in Figure 2, I again fail to identify violations of parallel pre-trends for total contributions or government grants. The results from donors in total contributions and government grants show no statistical change in any time period after the PPA passed, with the exception of total contributions in 2006 and 2007. The 2006 result is not robust to removing charities who changed their Form 990-T filing status; however, the 2007 result is.

6. Changes in Contributions for Subsidiary Creators

The increase in usage of subsidiary organizations and lack of change in total contributions by donors poses an interesting question as to why donors did not change their behavior after PPA passage. Subsidiary creation could potentially signal to donors that a charity is circumventing the Form 990-T disclosure requirement to hide harmful information from the donor. However, it is also possible that donor preferences had not changed from Herman and Rendina's (2001) survey data indicating that they are not concerned with subsidiary activity.

To explore this topic further, I expand on my difference-in-differences strategy into a triple difference strategy by introducing a third comparison group: subsidiary creators in the two years after PPA passage compared to charities who did not create a subsidiary organization. Similar to my difference-in-differences strategy, the parallel trends assumption must hold for causal analysis using a triple difference strategy. As outlined in Olden and Møen (2020), the triple difference strategy requires only one set of parallel trends to hold, which I have already argued to hold for filers and non-filers in a previous section. In addition to my earlier parallel trends argument, I will not find a violation of parallel trends in my event event study analysis.

My triple difference takes the following form:

$$y_{it} = \alpha_i + \gamma_t + \delta(f990t * PPA * new)_{it} + \theta(f990t * PPA)_{it} + \eta(f990t * new)_{it} + \zeta(new * PPA)_{it} + X_{it}\beta + \epsilon_{it}$$

where $(f990t * PPA * new)_{it}$ represents an interaction between organizations who filed a Form 990-T at least once prior to the passage of the PPA ($f990t$) interacted with an indicator for years

after PPA passage (PPA) and an indicator variable for organizations creating new subsidiaries in the two years following the PPA (new). The outcome variable of interest is log of total contributions. Each unique combination of two indicators is included in my analysis, as well as the charity operation controls listed in prior sections. Due to the discontinuity of subsidiary data with the introduction of the new Form 990 in 2008, I cut off my analysis at filing year 2007.[18] I extend my triple difference strategy into an event study framework of the following form:

$$y_{it} = \alpha_i + \gamma_t + \Sigma_{p \neq -1} \delta_p 1(t - PPA = p) + \theta(f990t * PPA)_{it} + \eta(f990t * new)_{it} + \zeta(new * PPA)_{it} + X_{it}\beta + \epsilon_{it}$$

In both my triple difference and event study framework, δ is the coeffecient of interest.

Contribution behavior may change for organizations at the margin of generating a subsidiary. In order to analyze marginal subsidiary creators, I first identify what organizational characteristics are associated with creating a new subsidiary, and then use these findings to generate propensity scores to weight my triple difference analysis. To do this, I run the following probit equation:

$$newsub_{i,2007} = \Phi(\alpha_{i,2007} + \delta 990T_{i,2007} + X_{i,2007}\beta)$$

where $newsub_{i,2007}$ is an indicator that a charity i created a new subsidiary in the time period analyzed, $990T_{i,2007}$ represents organizations filing a Form 990-T before PPA passage, and $X_{i,2007}$ represent the charity operation variables used throughout my analysis. Due to the issues of estimation consistency with fixed effect Probit models, this analysis is cross sectional in nature. The Probit estimates allow me to generate propensity score weights for each charity in my dataset that I carry across each year in my panel. Probit marginal effects at the sample mean are listed in Table 10. I find that filing a Form 990-T prior to the passage of the PPA, log of assets, log of gross unrelated business income, log of total expenses and log of fundraising expenses to be related with creating a new subsidiary organization after filing year 2005.

[18] As a robustness check, I extend my analysis to 2012 in Supplemental Appendix B and C. Extending the analysis does not change my results.

Turning to the results of my triple difference in Table 7, I find no statistically significant change in total contributions for treated subsidiary creators either in aggregate, or at the margin through propensity score weighting. The lack of change in donor behavior extends to my event study framework, detailed in Figure 4, where I find no violation of pre-trends or change in donation behavior in either 2006 or 2007. Therefore, I find no evidence of a change in donor behavior in response to increased subsidiary usage after PPA passage. This finding provides evidence indicating that donor preferences regarding subsidiary activity remained consistent with Herman and Rendina's (2001) results after PPA passage.

7. PPA & Unrelated Business Income

Discussion of the PPA is incomplete without discussing unrelated business income generating activities, as this area is most impacted by the requirement of public disclosure of Form 990-T filings.[19] Beginning with the plot of average charity unrelated business income on the left-hand side in Figure 5, it appears that there is some underlying market trend in charities earning unrelated business income prior to PPA passage, compared to those who did not. This is both driven by an increased number of charities filing a Form 990-T in 2004 and 2005, as well as market trends compared to a control group that has zero unrelated business income by legal definition. Therefore, my difference-in-differences strategy will not produce valid causal estimates, rendering the rest of this section a discussion of descriptive results rather than causal ones. However, as argued in Rambachan and Roth (2019), there still can be insights gleamed in comparing groups violating parallel trend assumptions.

Plotting the raw data in Figure 5 demonstrates that average unrelated business income earned by organizations in my treatment group[20] increases up until PPA passage, where average unrelated

[19]Given my results on increased subsidiary organization usage, it is important to highlight how subsidiary income is treated in terms of unrelated business income. Any gross subsidiary income paid back to the charity in the form of royalties, etc. is treated as unrelated business income and taxed as such. However, subsidiary income not returned to the charity is taxed as income by the subsidiary organization and is not considered unrelated business income (Woll, 2018).

[20]Organizations filing a Form 990-T at least once in the three filing years before PPA passage

business income appears to plateau if not outright decline. Some of this decline in the raw data is attributable to a decrease in number of charities within the treatment group filing a Form 990-T, with 1,819 charities filing a Form 990-T in filing year 2006 and only 1,687 charities filing a Form 990-T in filing year 2012. Conversely, average unrelated business income generated by charities who did not previously file a Form 990-T increases annually after PPA passage. This appears to be driven by an increasing number of organizations who previously never filed a Form 990-T entering into unrelated business income generating market spaces, with the number of new filers increasing from 107 to 489 over filing years 2006 to 2012.

I apply my difference-in-differences framework to the log of gross unrelated business income and report the results in the first two columns of Table 5. In analyzing all charities, levels of unrelated business income decrease by 161% compared to baseline averages for Form 990-T filing organizations. Furthermore, my event study analysis plotted in Figure 6 further bolsters these findings, showing a dramatic decrease compared to non-filers in average unrelated business income earned by charities who filed a Form 990-T at least once prior to PPA passage. Finally, as I have a monotonically decreasing violation of parallel trends, I conduct a Rambachan and Roth (2019) sensitivity analysis, similar to the analysis described in my robustness section, to see how much my results are driven by the underlying pre-trend. The sensitivity analysis for filing year 2007 is plotted on the left-hand side of Figure 4. In analyzing all charities, I find that no further deviation from monotonically decreasing parallel trend violations returns filing year 2007 to statistically equivalent average unrelated business income received compared to the 2005 baseline.

To determine if changes in unrelated business income generating activities are driven largely by the entry and exit of charities from unrelated business income generating markets, I restrict my sample to charities either always or never filing a Form 990-T. Examining the raw data plot of always filers compared to never filers on the right-hand side of Figure 5, it appears that unrelated business income generation essentially plateaus after PPA passage, with the exception of the years of the Financial Crisis in 2008 and 2009. Never filers, by legal definition, have near zero gross unrelated business income reported across the sample. As mentioned previously, the number of

charities filing a Form 990-T increases annually in my dataset up until 2011. Therefore, the data suggests any changes to average unrelated business income levels for the control and treatment group are driven by a change in organizations partaking in unrelated business income generating activities, with organizations who had previously filed a Form 990-T some years prior to the passage of the PPA exiting unrelated business income generating activities and those who previously were not filers entering into unrelated business income generating activities.

Applying my difference-in-differences and event study frameworks to the dataset on always filing and never filing charities provide correlations supporting this hypothesis. Again examining the difference-in-differences specification in the second two columns of Table 5, I find no change in levels of unrelated business income generated. This provides further evidence that average levels of unrelated business income are not changing; however, the firms who are competing in this market space are. Furthermore, event study analysis on always filers and never filers plotted on the right hand side of Figure 6, the only years showing a statistical change in unrelated business income are in 2008 and 2009, in the midst of the Financial Crisis. Finally, examining the Rambachan and Roth (2019) sensitivity analysis on the right-hand side of Figure 9, I find no statistical difference in unrelated business income earned compared to the 2005 baseline at any level deviation from monotonically decreasing parallel trend violations. Therefore, while I cannot conclude that the passage of the PPA causally changed the revenue strategies of some charities by pushing some charities out of unrelated business income generating activities and encouraging others to engage in unrelated business income generating activities, I can conclude that the PPA passage at least coincided with a fundamental change in the composition of charities generating unrelated business income.[21]

[21]While my analysis indicates that the composition of charities operating in unrelated spaces has changed after the passage of the PPA, due to the limitations of Form 990 data, I am unable to determine how the organizations specifically used their newly generated UBI.

8. Discussion

My results demonstrate that charities earning unrelated business income prior to the passage of the PPA responded to mandatory Form 990-T disclosure by creating new taxable subsidiary organizations. My analysis indicates a robust finding of an approximate 28.1% increase in number of subsidiary organizations in the 2006 and 2007 filing years from Form 990-T filers. This translates into roughly one-in-four Form 990-T filing organization creating a new taxable subsidiary per year in the two years after the PPA passed. These results provide a mechanism for the hypothesis put forward in Yetman and Yetman (2008) and Brody (2012) that Form 990-T filing organizations would shift their activities generating unrelated taxable income onto taxable subsidiary organization after the passage of the PPA, based on the incentives change with added transparency cost in operating unrelated activities relative to the monetary and time costs of establishing a subsidiary organization. As I do not have specific data on charity subsidiary income or the composition of unrelated business income, testing this hypothesis is left to future research.

I also find descriptive data indicating that the composition of charities earning unrelated business income changes after PPA passage. While the sector as a whole grows throughout my sample, I find that a large number of charities previously earning unrelated business income exit the market space while simultaneously creating more subsidiary organizations. However, I also find that more organizations not previously earning unrelated business income enter into unrelated revenue generating activities nearly every year after PPA passage. While descriptive in nature, this result opens the door for new research on charity operations in unrelated activities. These questions are left for future research.

Conversely, my results indicate that any alterations to donor decisions based on the public availability of the Form 990-T were temporary. In the seven filing years after passage, there is no statistical difference in total contributions or government grants. Furthermore, the only change observed in donor behavior stems from a 2006 and 2007 increase in total contributions after including charities who do not file a Form 990-T annually, which returns back to baseline levels the year after and remains there throughout the sample. Furthermore, I find no change in donor behav-

ior in response to subsidiary creation by charities filing a Form 990-T prior to PPA passage. This result is in line with Herman and Rendina's (2001) results indicating that donors are not concerned by charities generating a large portion of their income through subsidiary activities. My results on donor behavior indicate that the Herman and Rendina (2001) results on donor preferences hold through the United Way scandal, the Senate Finance Committee hearings on nonprofit malpractice, and the passage of the PPA.

Further putting the donor behavior results into context, the charitable giving literature has demonstrated that donors paradoxically are concerned with financial transparency, but most donors do not read charity financial statements prior to donating (Herman and Rendina, 2001; Hope Consulting, 2010). Using previous results in the literature, it appears that the lack of change in donor behavior can be explained best by a combination of many donors being unaware of Form 990-T disclosure requirements, and those who were aware, lacking concern for both the information provided by the Form 990-T and the increase in subsidiary organizations. This explanation is consistent both with the literature, as well as coverage on Form 990-T disclosure requirements.

The majority of donors not knowing about disclosure requirement changes in the PPA is in line with how the Senate Finance Committee hearings and charity changes in the PPA were covered. The New York Times and Washington Post both cover the Senate Finance Committee investigations; however, they do not specifically mention the Form 990-T disclosure policy (Strom, 2005; Stephens and Ottaway, 2005). Neither did the press release from Senate Finance Committee Chair Chuck Grassley announcing the inclusion of charity reforms in the PPA (Grassley, 2006). Additionally, Charity Navigator (2016), Charity Watch (2021), and the Better Business Bureau (2021) do not appear to use Form 990-T filings in their charity ratings. However, high information donors likely were aware of the new requirements, as it was covered in multiple articles by Nonprofit Quarterly (Nonprofit Quarterly, 2004; Myrie, 2006). Furthermore, organizations like the American Institute of Certified Public Accountants and the National Association of College and University Business Officers (2008) provided coverage of changes in Form 990-T disclosure requirements (Kalick, 2007). The IRS (2017a; 2021) also highlights the changes from the Pension

Protection Act as well as Form 990-T disclosure requirements on their website. Finally, it is possible that donors changed their engagement with charities disclosing their Form 990-T or creating subsidiary organizations through methods outside of changing contributions such as web traffic to charity websites; however, this topic is left for future research.

9. Conclusion

In this paper, I analyze how charities and donors respond to increased tax filing transparency requirements to obtain a better understanding of how organizations respond to mandatory financial disclosure. In addition to providing the data analysis of the Form 990-T disclosure requirement in the PPA, my findings add to the literatures on donor behavior and nonprofit organizations in their response to mandatory disclosure. Furthermore, my results demonstrate the importance in considering secondary actions by The Pension Protection Act (PPA) of 2006 required charities earning unrelated business income to publicly disclose these tax returns (Johnson, 2006). In their analysis of the bill, the US Congress Joint Committee on Taxation (2006) justified this measure's inclusion in order to ensure charities could not hide financial information that they would find harmful. However, I demonstrate through a difference-in-differences analysis that approximately one in four charities who had generated generate unrelated business income at least once in the three years prior to the passage of the PPA created new taxable subsidiary organizations each year for the next two filing years. This coincided with a decrease in unrelated business income generating activity from nonprofit organizations previously earning unrelated business income before PPA passage.

The Form 990-T disclosure requirement acts as a change of price in unrelated business income generating activities, lowering the relative cost of subsidiary creation as taxable subsidiary organization filings are exempt from the disclosure requirements from the PPA. As a result, the newly created subsidiary organizations offer a potential way to undermine the intention of public Form 990-T disclosure. Therefore, my findings provide evidence that charities established the mechanisms necessary for shifting unrelated business income generating activities to taxable subsidiaries,

which is consistent with the incentives created by the PPA and was hypothesized by Yetman and Yetman (2008) and Brody (2012). As the data does not appear to be comparable before and after the Form 990 redesign in 2008, it is impossible to state if subsidiary creation was a one time effect or an ongoing phenomenon. Thus, due to data limitations, I cannot confirm that the hypothesized shifting of activities is occurring. This question is left to future research.

I also find that the composition of unrelated business income earning charities changes coinciding with the passage of the PPA. While not causal, the results indicate that smaller organizations who had previously not earned unrelated business income were more willing to enter into unrelated business income generating activities; conversely, larger charities who had previously been earning unrelated business income, exited out of the market space while at the same time creating new taxable subsidiary organizations. As these results are not causal, I am not able to determine if the Form 990-T disclosure requirement specifically caused these organizational changes. However, combined with increased subsidiary creation for previously filing organizations results in donors having less overall operations data available for those charities, as gross and net unrelated business income are reported on the Form 990 while subsidiary income is not. The correlation results do provoke interesting questions on unrelated business income generating activities, a topic ripe for exploration in the nonprofit operations literature. I leave these questions to future research.

Finally, I find that neither donors nor government grant agencies decreased donations in aggregate to Form 990-T filing organizations after they disclosed their unrelated business income tax returns. Any changes to aggregate contributions found within my data are shown to be transitory in nature. Furthermore, I find no change in donor behavior in response to increased subsidiary creation among nonprofit organizations previously generating unrelated business income before PPA passage. These findings are in line with Herman and Rendina's (2001) survey results indicating that donors are not concerned with income generation stemming from subsidiary organizations, and demonstrate that donor preferences in regards to unrelated or subsidiary activity did not change through the news coverage, committee hearings, and legislative process leading to the charity reforms included in the PPA. It is possible that the Form 990-T disclosure requirement impacted

donor engagement in ways not measured by contributions. This question is left to future research.

Combined, the results show that charity organizations are willing to alter their structure in a manner allowing them to continue operations similar to how they operated before the disclosure requirement was set into motion. Conversely, donors do not respond to the additional mandatory disclosure, nor the organizational restructure. Based on findings in the literature, this is likely due to a combination of some donors not being aware of the new additional information, and most donors who were aware not changing their behavior in response to the new information. It is not clear how the results will differ in an environment outside of the nonprofit sector. In the for-profit sector, contributors are rarely donors but are instead generally bondholders or stockholders with a financial interest in a company. As such, more research is needed to determine the impacts of additional financial disclosure in the for-profit sector.

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10. Figures

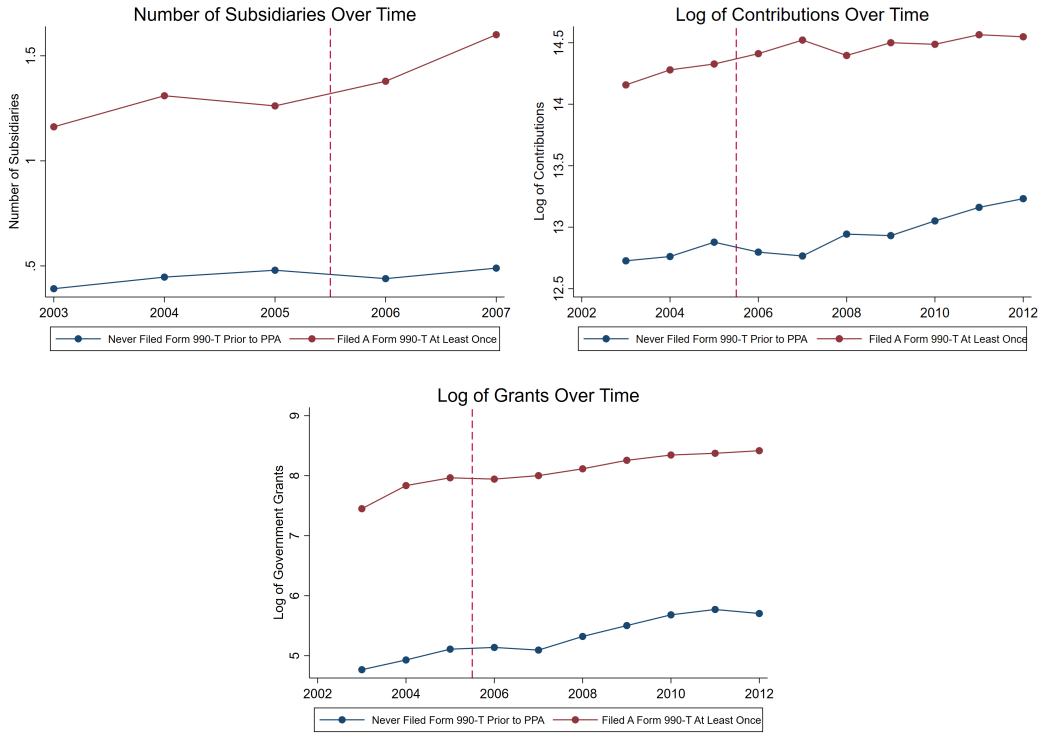


Figure 1: Mean Plots of Outcome Variables, 2004-2012 [Subsidiaries 2004-2007]

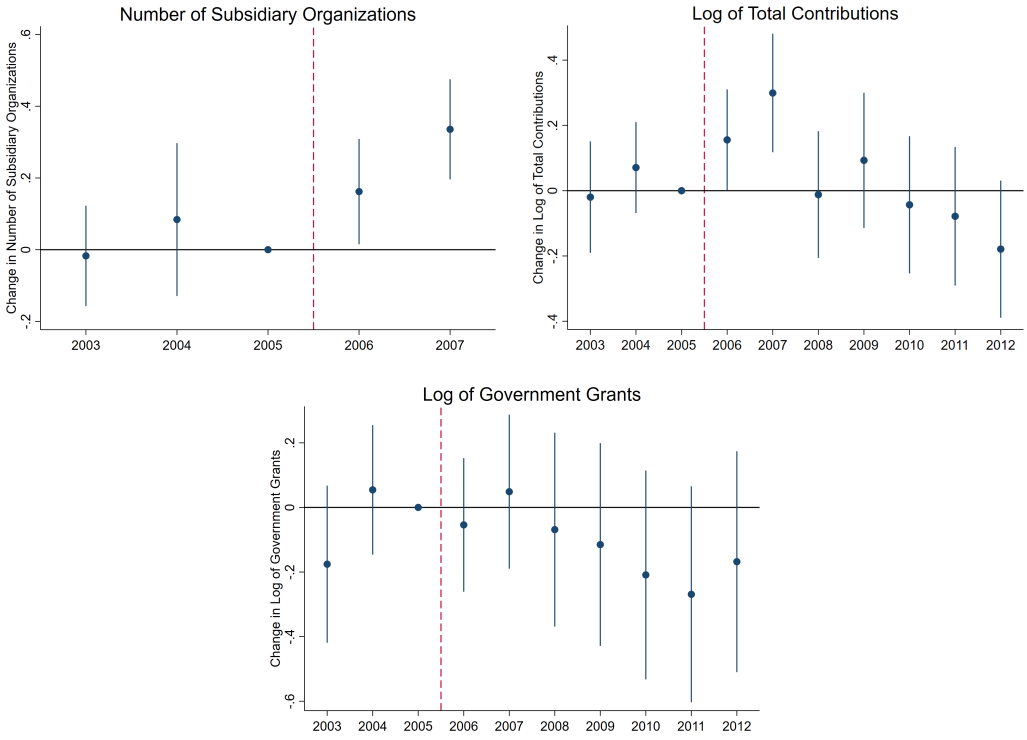


Figure 2: Event Study Diagrams

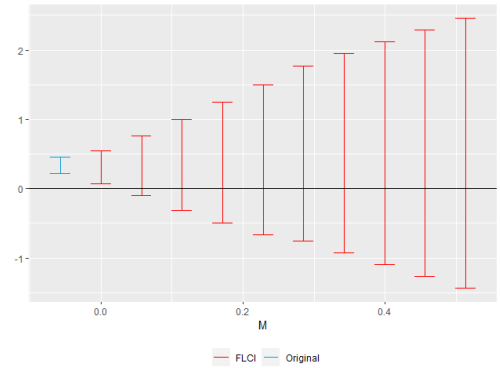


Figure 3: Rambachan and Roth (2019) Coefficient Sensitivity Test: Number of Subsidiaries

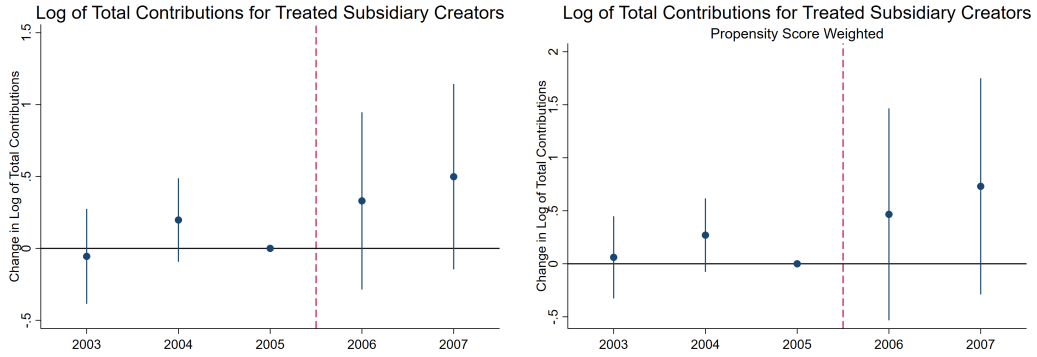


Figure 4: Triple Difference Event Study

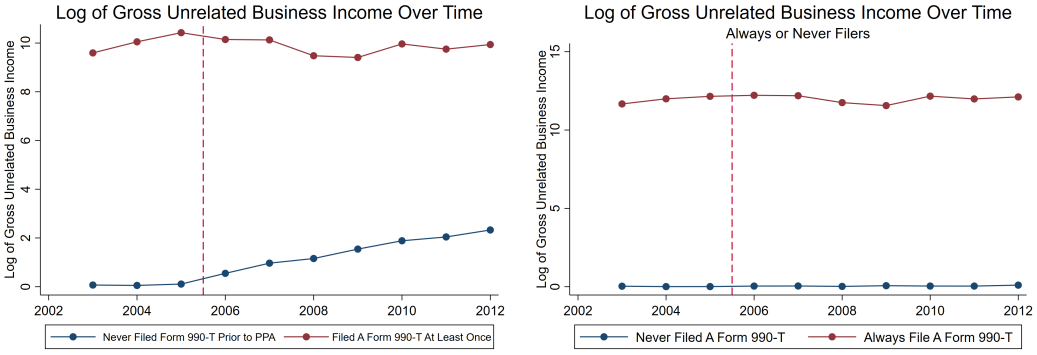


Figure 5: Mean Plot of Log Gross Unrelated Business Income

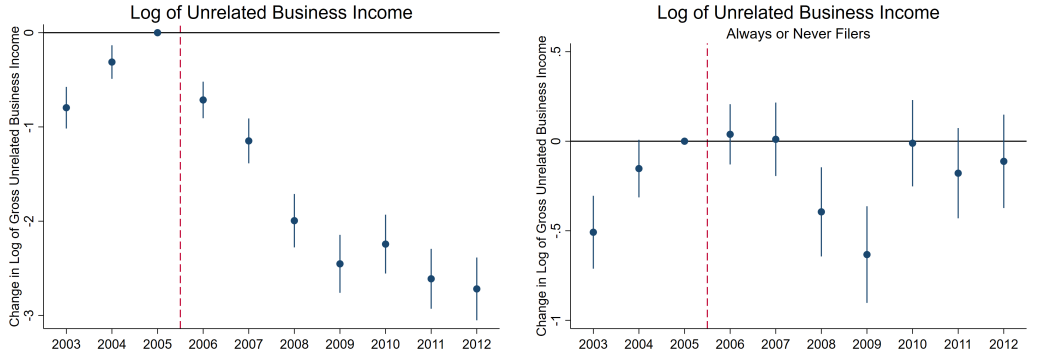
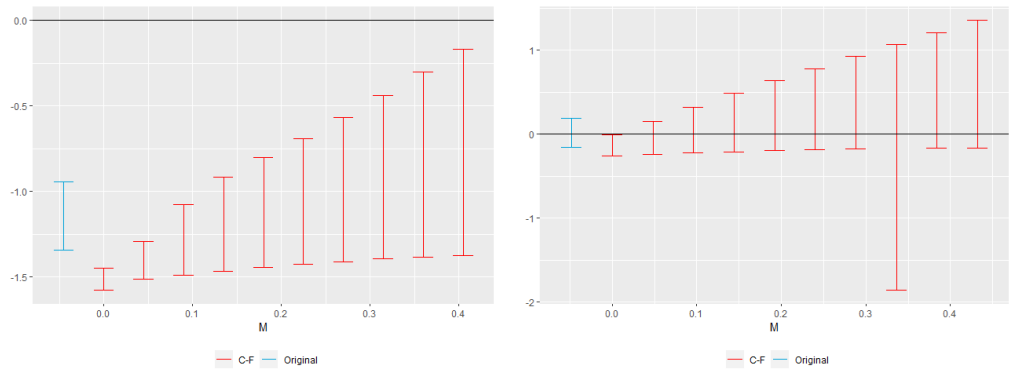


Figure 6: Event Study Log Unrelated Business Income



(a) All Charities (b) Always File or Never File

Figure 7: Rambachan and Roth (2019) Coefficient Sensitivity Tests Unrelated Business Income

11. Tables

Table 1: Balance Table: 2003-2012 Charities

		Years Before PPA Passage				Years after PPA Passage			
	All Charities	Non-Filer	File 990-T	Difference	All Charities	Non-Filer Pre PPA	File 990-T Pre PPA	Difference	Diff in Diff
Log Assets BOY	18.851	18.520	19.140	0.620***	19.155	18.816	19.453	0.637***	0.017
	(1.055)	(0.941)	(1.065)	(1.055)	(0.985)	(0.774)	(1.052)	(0.011)	(0.021)
Log Assets EOY	18.951	18.629	19.232	0.603***	19.195	18.848	19.499	0.650***	0.047*
	(0.938)	(0.721)	(1.012)	(0.017)	(1.011)	(0.822)	(1.063)	(0.012)	(0.021)
Log Liabilities BOY	17.102	16.360	17.752	1.392***	17.466	16.731	18.109	1.378***	-0.013
	(2.800)	(3.343)	(2.004)	(0.051)	(2.669)	(3.178)	(1.905)	(0.032)	(0.059)
Log Liabilities EOY	17.201	16.472	17.840	1.369***	17.509	16.773	18.154	1.381***	0.012
	(2.722)	(3.268)	(1.196)	(0.049)	(2.669)	(3.166)	(1.923)	(0.032)	(0.058)
Log Total Expenses	17.726	17.050	18.317	1.267***	18.027	17.370	18.603	1.233***	-0.034
	(1.707)	(1.736)	(1.440)	(0.030)	(1.596)	(1.580)	(1.371)	(0.018)	(0.034)
Log Fundraising Expenses	7.681	7.258	8.052	0.793***	5.133	4.871	5.363	0.492***	-0.302*
	(6.840)	(6.657)	(6.975)	(0.128)	(6.261)	(6.122)	(6.372)	(0.077)	(0.144)
Log Program Service Revenue	14.896	12.936	16.611	3.675***	15.366	13.541	16.964	3.423***	-0.252
	(6.419)	(7.194)	(5.065)	(0.115)	(6.259)	(7.011)	(4.995)	(0.074)	(0.136)
N	3,807	1,777	2,030	3,807	3,807	1,777	2,030	3,807	3,807

$^{*}\ p < 0.05$, $^{**}\ p < 0.01$, $^{***}\ p < 0.001$

Notes: Columns 1-3, 5-7 standard deviations in parentheses. Columns 4, 8 and 9 standard errors in parentheses. N represents number of charities in the panel.

† Data on number of subsidiaries after 2008 not included in this table as the way the Form 990 counted number of subsidiaries change with the new Form 990 creation in 2008.

Table 2: Difference-in-Differences: All Charities Filing in 2003-2012

	# Subsidiaries †		ln(Tot. Contr.)		ln(Grants)	
990-T Filers * PPA	0.220***	0.226***	0.041	0.017	-0.066	-0.078
	(0.058)	(0.060)	(0.077)	(0.076)	(0.116)	(0.116)
Year Fixed Effects	✓	✓	✓	✓	✓	✓
Charity Fixed Effects	✓	✓	✓	✓	✓	✓
Operation Controls		✓		✓		✓
N	3,807	3,807	3,807	3,807	3,807	3,807

Standard errors, clustered by charity and robust to heteroskedasticity, in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Each number in N represents number of charities in a 10 year panel.

† Number of Subsidiaries only measured through 2007 as data collection changed after the 2008 Form 990 redesign.

Table 3: Probit Marginal Effects: Subsidiary Creators

	New Subsidiary After 2005
990-T Filers	0.030*
	(0.015)
Log GUBI	0.002*
	(0.001)
Log Contributions	-0.000
	(0.001)
Log Grants	-0.001
	(0.001)
Log Assets (BOY)	0.033***
	(0.006)
Log Liabilities (BOY)	0.001
	(0.001)
Log Total Expns.	0.027***
	(0.006)
Log Fund Expns.	-0.003***
	(0.001)
Log Program Service Rev.	0.001
	(0.001)
N	3,807

Standard errors, clustered by charity and robust to heteroskedasticity.

Coefficients represent average treatment effects at the sample mean

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4: Triple Difference: 2003-2007 Total Contributions for Treated Subsidiary Creators

		ln(Tot. Contr.)		
990-T Filers * PPA * Sub. Creation	0.340	0.367	0.469	0.488
	(0.316)	(0.317)	(0.511)	(0.510)
Year Fixed Effects	✓	✓	✓	✓
Charity Fixed Effects	✓	✓	✓	✓
Operation Controls		✓		✓
Propensity Score Weighted			✓	✓
N	3,807	3,807	3,807	3,807

Standard errors, clustered by charity and robust to heteroskedasticity

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Each number in N represents number of charities in a 5 year panel.

Table 5: Difference-in-Differences: Log Gross Unrelated Business Income

	All Charities		Always or Never Filers	
990-T Filers * PPA	-1.613***	-1.610***	0.026	0.052
	(0.110)	(0.110)	(0.084)	(0.081)
Year Fixed Effects	✓	✓	✓	✓
Charity Fixed Effects	✓	✓	✓	✓
Operation Controls		✓		✓
N	3,807	3,807	2,481	2,481

Standard errors, clustered by charity and robust to heteroskedasticity, in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Each number in N represents number of charities in a 10 year panel.

12. Appendix A – Robustness Checks

12.1. Event Study Coefficient Sensitivity Testing

My event study analysis shows that the parallel trends assumption is not violated at the 5% level for any of my outcome variables; however, as discussed in Rabachan and Roth (2019), this does not mean that the assumption of perfectly parallel trends is met. As such, there is a potential concern that my results demonstrating an increase in number of subsidiary organizations is a result of incorrectly assumed linearly parallel trends. Rabachan and Roth (2019) develop a test examining how sensitive the results of an event study analysis are to deviations from linear parallel trends by identifying a deviation from linearity where the null hypotheses can be rejected. The authors label the described deviation M. Estimates for filing year 2007 in my event study analysis on number of subsidiary organizations including an M deviation from parallel trends are plotted in the main paper. The estimate becomes statistically indistinguishable from zero at a level near $M = 0.05$. In the context of my result, where I find a 41.7% increase in subsidiary usage, this estimate would require a deviation from parallel trend not picked up in the data equal to nearly 12% of the effect to render my estimates statistically indistinguishable from zero.

12.2. Average Treatment Effect Coefficient Sensitivity Testing

A further related concern is that my observed result exists simply due to omitted variable bias. To check this, I run a test on coefficients with and without controls, similar to Altonji et. al. (2005) and Bellows and Miguel (2009), in order to determine the robustness of my estimates to omitted variable bias. Using the results reported in Table 2 of the main paper, with my results without operation controls representing the uncontrolled regression and my results with operation controls representing my controlled regression. The ratio of coefficients described in Altonji et. al. (2005) and Bellows and Miguel (2009) equals 34.835, indicating that covariance between number of subsidiaries and unobserved variation in charity operations would need to nearly 35 times the magnitude of the covariation between number of subsidiaries and observed variation to render my average treatment effect statistically indistinguishable from zero.

12.3. Placebo Estimates

A potential concern with my observed result of Form 990-T filing organizations increasing their number of subsidiary organizations is simply a spurious correlation driven by serial correlation in charity observations, as discussed in Bertrand et. al. (2004). A further concern is that the increased number of subsidiary organizations finding is a result due incorrectly specified treatment and control groups on differing trends. While my main results cluster standard errors at the charity level to control for serial correlation, and parallel trend assumptions for a valid difference-in-differences design appear to be met, to further ensure that my results are not driven either of these concerns, I perform a 500 placebo regression analysis similar to Chetty et. al. (2009). In doing so, I construct randomly assign a placebo "treatment group" from my control observations and use the placebo treatment group to estimate my difference-in-differences model. The results are shown in Figure 8 of Appendix B, with the actual estimated coefficient well to the right of the empirical cdf of my placebo estimates, with an estimated p-value of zero. Therefore, I find no evidence that serial correlation or incorrectly specified treatment and control groups drive my result of increased numbers of subsidiary organizations in Form 990-T filing organizations after PPA Passage.

12.4. Removal of Partial Compilers

The number of organizations filing a Form 990-T increases annually in my analysis with the exception of filing year 2011 to filing year 2012. This includes some charities previously filing a Form 990-T in the treatment group moving out of unrelated business income generating activity and some organizations who were not generating unrelated business income in the control group moving into unrelated business income generating activity. [22] I discuss these dynamics in greater detail in the pain paper; however, to ensure that my results are not driven by organizations changing their business practices surrounding unrelated business income generation, I rerun my analysis with organizations who either always file a Form 990-T or never file a Form 990-T in my data. These results are reported in Figures 12 - 16 of Appendix B and Tables 8 - 11 of Appendix C.

[22] While their charity operations may have changed, I do not change control / treatment group classification for any charity.

Overall, my results in analyzing always filers and never filers are consistent with those that I found in analyzing the full data sample.

13. Appendix B - Main Supplemental Figures

13.1. Additional Robustness Checks, Full Data

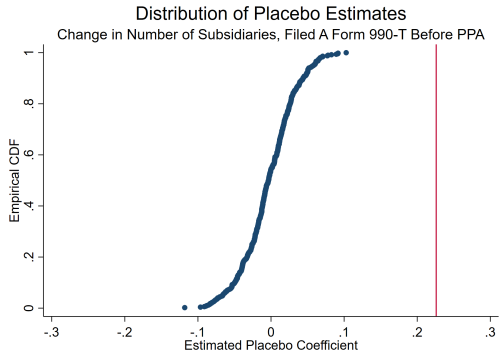


Figure 8: Distribution of Placebo Estimates, Number of Subsidiary Organizations.
Note: P-Value = 0.000, actual value of $\hat{\beta}$ represented by the red line on the graph.

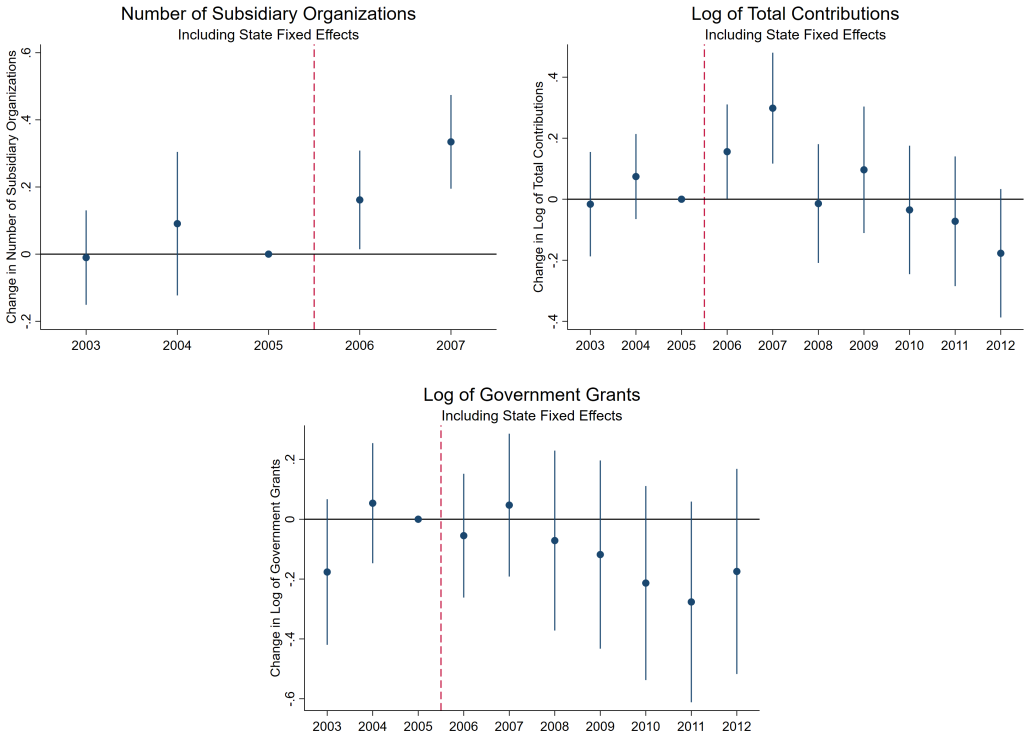


Figure 9: Event Study Diagrams, State Fixed Effects

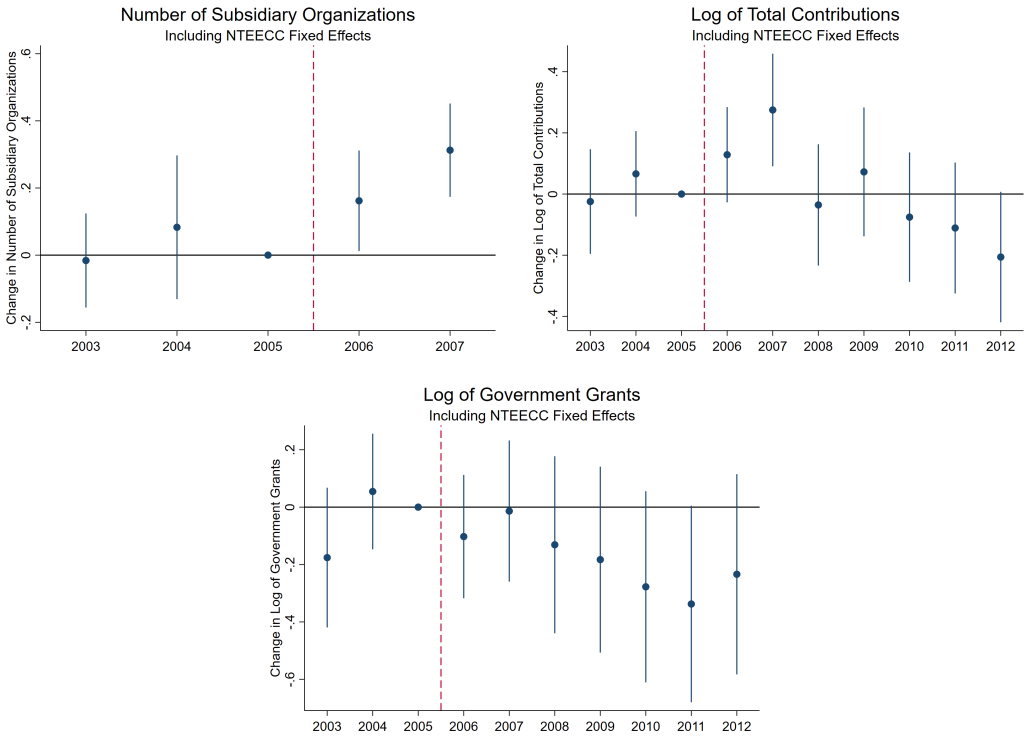


Figure 10: Event Study Diagrams, NTEECC Fixed Effects

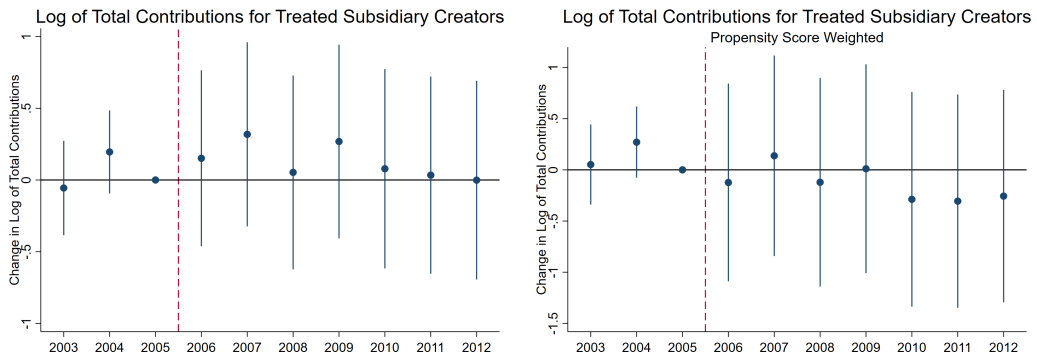


Figure 11: Triple Difference Event Study Through 2012

13.2. Analysis on Always Filers Never Filers Dataset

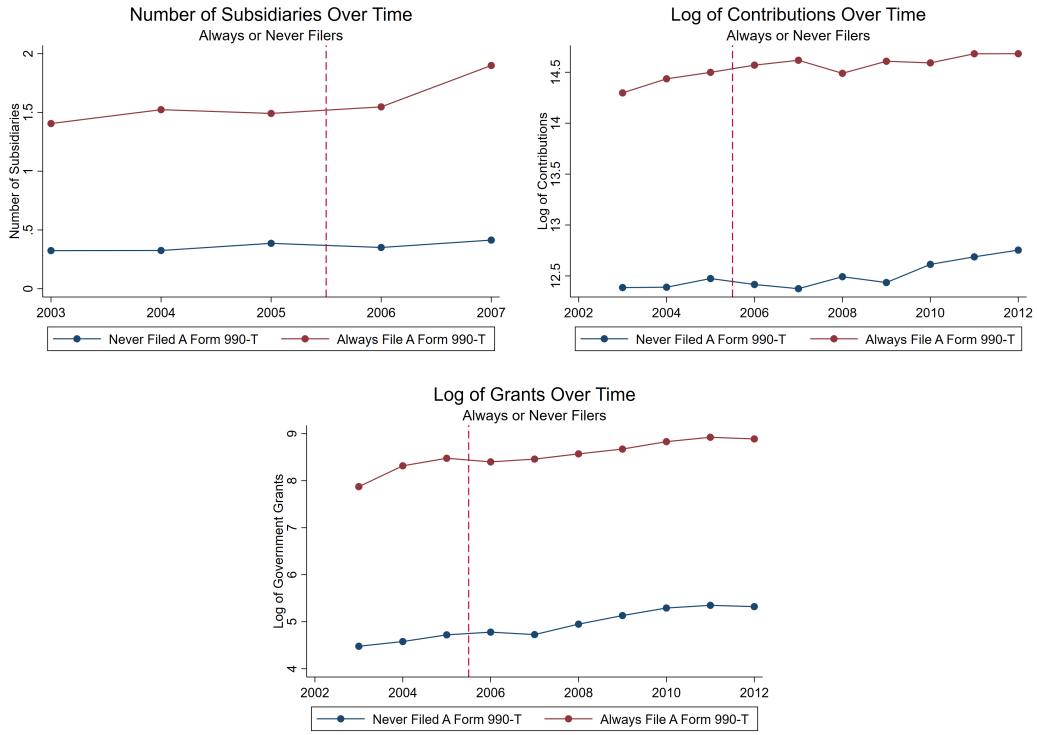


Figure 12: Mean Plots of Outcome Variables, 2004-2012 [Subsidiaries 2004-2007]

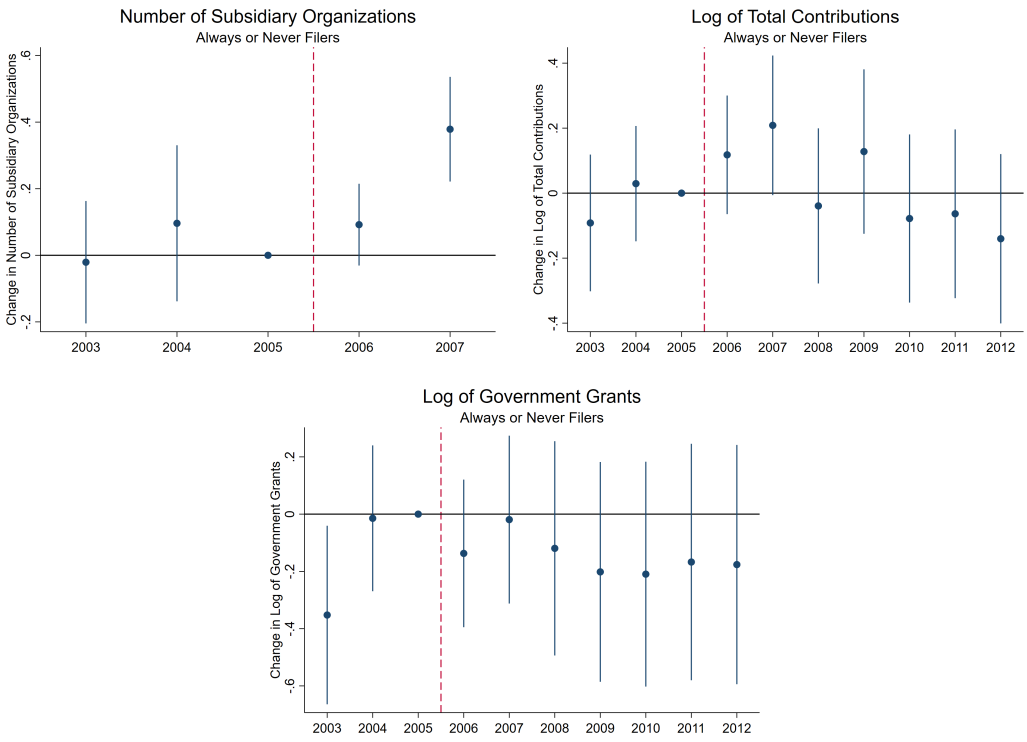


Figure 13: Event Study Diagrams

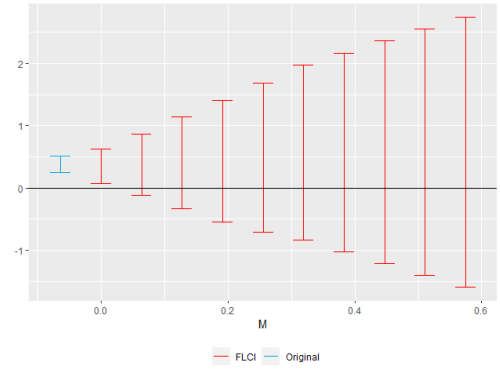


Figure 14: Rambachan and Roth (2019) Coefficient Sensitivity Test

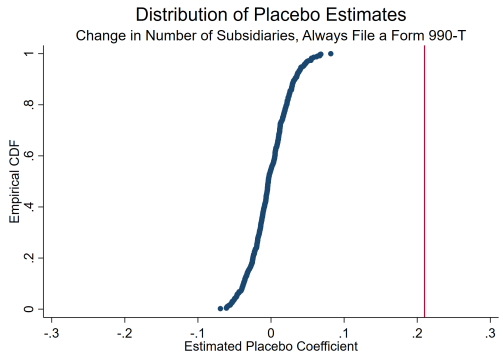


Figure 15: Distribution of Placebo Estimates
Note: P-Value = 0.000 for # of Subsidiaries.
Actual value of $\hat{\beta}$ represented by the red line on the graph.

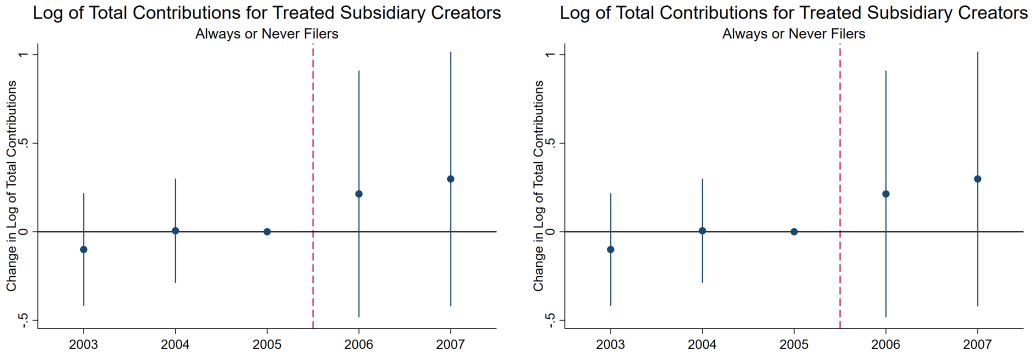


Figure 16: Triple Difference Event Study

14. Appendix C - Main Supplemental Tables

14.1. Robustness Checks

Table 6: Difference-in-Differences: All Charities Filing in 2003-2012

	# Subsidiaries †		ln(Tot. Contr.)		ln(Grants)	
990-T Filers * PPA	0.221***	0.215***	0.018	-0.006	-0.081	-0.141
	(0.059)	(0.061)	(0.076)	(0.079)	(0.117)	(0.120)
Year Fixed Effects	✓	✓	✓	✓	✓	✓
Charity Fixed Effects	✓	✓	✓	✓	✓	✓
Operation Controls	✓	✓	✓	✓	✓	✓
State Fixed Effects	✓		✓		✓	
NTEE-CC Fixed Effects		✓		✓		✓
N	3,807	3,807	3,807	3,807	3,807	3,807

Standard errors, clustered by charity and robust to heteroskedasticity, in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Each number in N represents number of charities in a 10 year panel.

† Number of Subsidiaries only measured through 2007 as data collection changed after the 2008 Form 990 redesign.

Table 7: Triple Difference: 2003-2012 Total Contributions for Treated Subsidiary Creators

		ln(Tot. Contr.)		
990-T Filers * PPA * Sub. Creation	0.061	0.086	-0.283	-0.243
	(0.319)	(0.317)	(0.494)	(0.490)
Year Fixed Effects	✓	✓	✓	✓
Charity Fixed Effects	✓	✓	✓	✓
Operation Controls		✓		✓
Propensity Score Weighted			✓	✓
N	3,807	3,807	3,807	3,807

Standard errors, clustered by charity and robust to heteroskedasticity

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Each number in N represents number of charities in a 5 year panel.

14.2. Analysis on Always Filers or Never Filers Dataset

Table 8: Balance Table: 2003-2012 Charities, Always or Never File Form 990-T

	Years Before PPA Passage				Years after PPA Passage				
	All Charities	Never File	Always File	Difference	All Charities	Never File	Always File	Difference	Diff in Diff
Log Assets BOY	18.872	18.435	19.276	0.841***	19.164	18.714	19.581	0.867***	0.026
	(1.100)	(0.896)	(1.117)	(0.024)	(1.040)	(0.725)	(1.112)	(0.015)	(0.027)
Log Assets EOY	18.968	18.540	19.364	0.825***	19.202	18.744	19.627	0.883***	0.058*
	(0.995)	(0.675)	(1.076)	(0.0231)	(1.061)	(0.763)	(1.121)	(0.015)	(0.027)
Log Liabilities BOY	17.135	16.165	18.033	1.868***	17.474	16.520	18.359	1.839***	-0.029
	(2.921)	(3.610)	(1.641)	(0.065)	(2.824)	(3.456)	(1.636)	(0.041)	(0.076)
Log Liabilities EOY	17.224	16.271	18.108	1.837***	17.517	16.557	18.406	1.849***	0.012
	(2.857)	(3.538)	(1.584)	(0.064)	(2.832)	(3.454)	(1.658)	(0.041)	(0.075)
Log Total Expenses	17.743	16.887	18.536	1.649***	18.045	17.208	18.820	1.612***	-0.037
	(1.796)	(1.783)	(1.401)	(0.038)	(1.689)	(1.623)	(1.344)	(0.023)	(0.043)
Log Fundraising Expenses	7.532	6.765	8.242	1.477***	4.978	4.483	5.437	0.954***	-0.523**
	(6.853)	(6.493)	(7.013)	(0.160)	(6.229)	(5.992)	(6.408)	(0.096)	(0.180)
Log Program Service Revenue	15.516	12.646	17.494	-4.847***	15.637	13.261	17.840	-4.579***	-0.268
	(6.238)	(7.246)	(3.875)	(0.135)	(7.096)	(3.781)	(6.072)	(0.087)	(0.159)
N	2,418	1,163	1,255	2,481	2,481	1,163	1,255	2,481	2,481

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Columns 1-3, 5-7 standard deviations in parentheses. Columns 4, 8 and 9 standard errors in parentheses. N represents number of charities in the panel.

† Data on number of subsidiaries after 2008 not included in this table as the way the Form 990 counted number of subsidiaries change with the new Form 990 creation in 2008.

Table 9: Difference-in-Differences: 2003-2012, Always File or Never File Form 990-T

	# Subsidiaries †		ln(Tot. Contr.)		ln(Grants)	
990-T Filers * PPA	0.213***	0.210***	0.073	0.041	-0.030	-0.025
	(0.064)	(0.063)	(0.093)	(0.093)	(0.142)	(0.142)
Year Fixed Effects	✓	✓	✓	✓	✓	✓
Charity Fixed Effects	✓	✓	✓	✓	✓	✓
Operation Controls		✓		✓		✓
N	2,481	2,481	2,481	2,481	2,481	2,481

Standard errors, clustered by charity and robust to heteroskedasticity, in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Each number in N represents number of charities in a 10 year panel.

† Number of Subsidiaries only measured through 2007 as data collection changed after the 2008 Form 990 redesign.

Table 10: Probit Marginal Effects: Subsidiary Creators

	New Subsidiary After 2005
990-T Filers	0.012
	(0.029)
Log GUBI	0.005*
	(0.002)
Log Contributions	-0.000
	(0.002)
Log Grants	-0.000
	0.001)
Log Assets (BOY)	0.032***
	(0.008)
Log Liabilities (BOY)	0.002
	(0.003)
Log Total Expns.	0.024**
	(0.007)
Log Fund Expns.	-0.002*
	(0.001)
Log Program Service Rev.	0.005*
	(0.002)
N	2,418

Standard errors, clustered by charity and robust to heteroskedasticity.
Coefficients represent average treatment effects at the sample mean
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 11: Triple Difference: 2003-2007 Total Contributions for Treated Subsidiary Creators, Always or Never File Form 990-T

	ln(Tot. Contr.)			
990-T Filers * PPA * Sub. Creation	0.223	0.288	0.321	0.431
	(0.360)	(0.360)	(0.515)	(0.517)
Year Fixed Effects	✓	✓	✓	✓
Charity Fixed Effects	✓	✓	✓	✓
Operation Controls		✓		✓
Propensity Score Weighted			✓	✓
N				

Standard errors, clustered by charity and robust to heteroskedasticity
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Each number in N represents number of charities in a 5 year panel.

15. Appendix D – Analysis on NCCS Dataset Extended to 2000

15.1. Figures

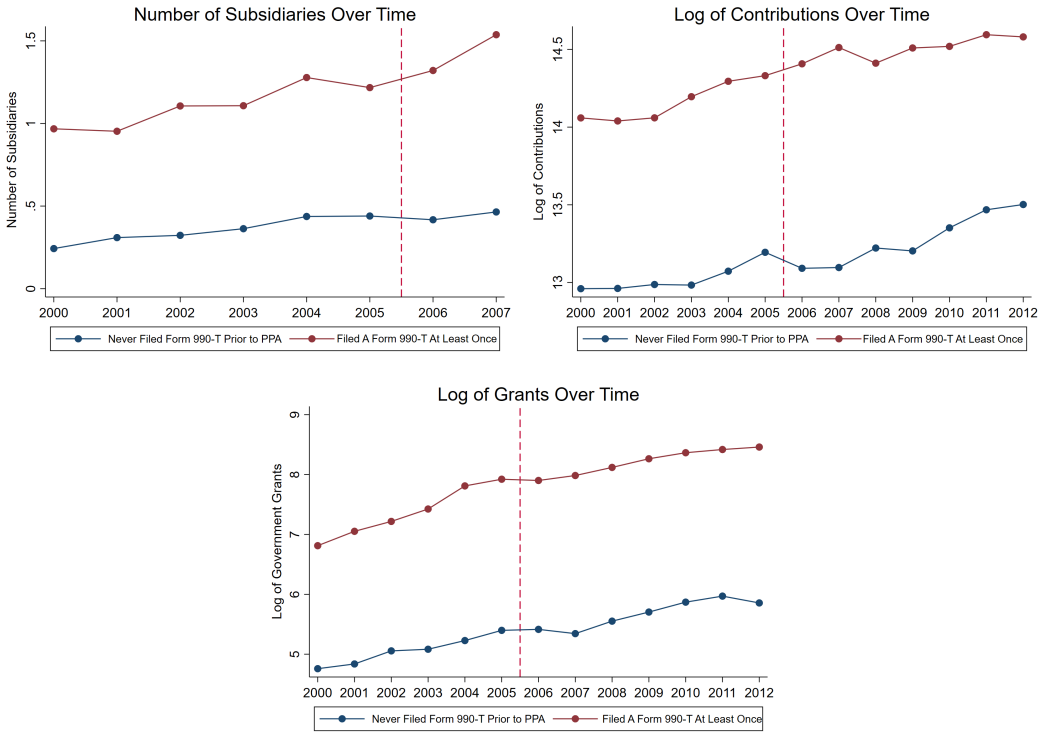


Figure 17: Mean Plots of Outcome Variables, 2004-2012 [Subsidiaries 2004-2007]

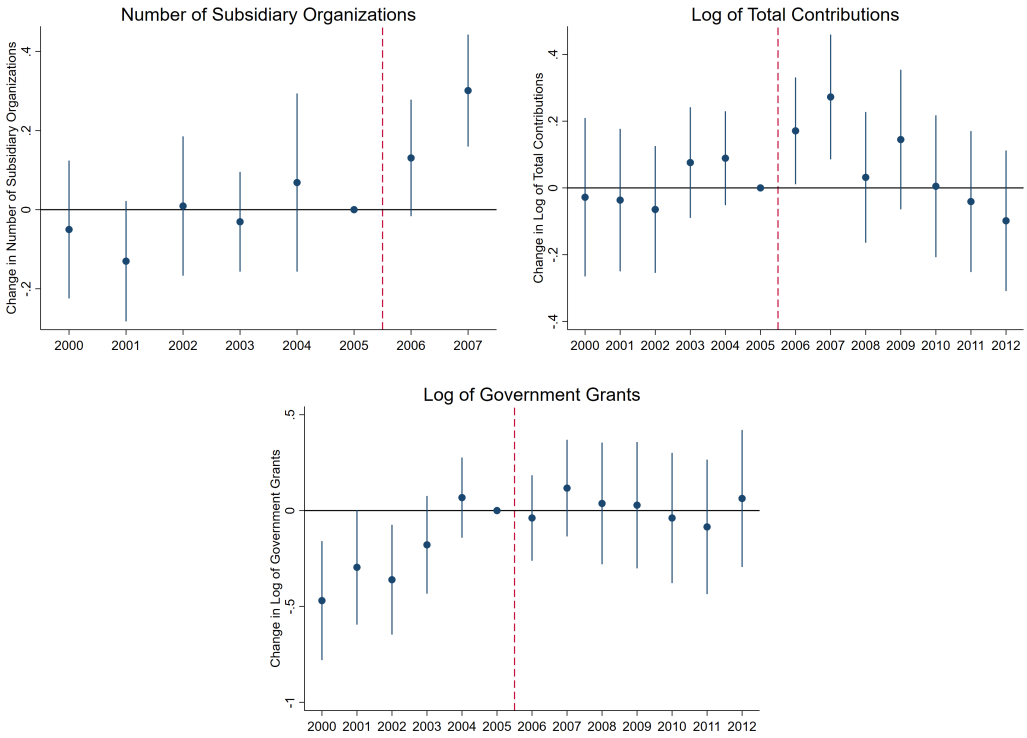


Figure 18: Event Study Diagrams

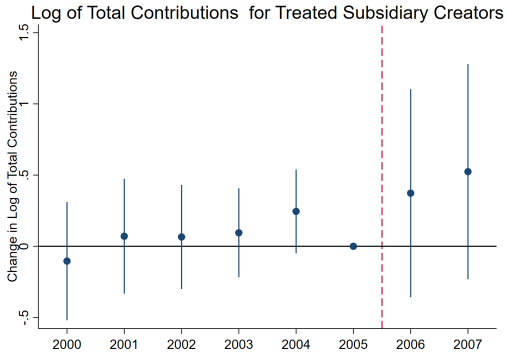


Figure 19: Triple Difference Event Study

Table 12: Balance Table: 2000-2012 Charities

	Years Before PPA Passage				Years after PPA Passage				
	All Charities	Non-Filer	File 990-T	Difference	All Charities	Non-Filer Pre PPA	File 990-T Pre PPA	Difference	Diff in Diff
Log Assets BOY	18.783	18.438	19.034	0.596***	19.170	18.802	19.437	0.635***	0.039*
	(1.048)	(0.879)	(1.088)	(0.014)	(0.992)	(0.774)	(1.046)	(0.012)	(0.019)
Log Assets EOY	18.859	18.515	19.109	0.594***	19.210	18.834	19.483	0.648***	0.054
	(0.946)	(0.729)	(1.006)	(0.013)	(1.018)	(0.828)	(1.056)	(0.013)	(0.018)
Log Liabilities BOY	16.980	16.119	17.606	1.485***	17.492	16.644	18.106	1.462***	-0.023
	(2.796)	(3.437)	(1.997)	(0.038)	(2.596)	(3.172)	(1.853)	(0.032)	(0.049)
Log Liabilities EOY	17.088	16.236	17.706	1.470***	17.537	16.688	18.152	1.465***	00.005
	(2.719)	(3.359)	(1.914)	(0.037)	(2.598)	(3.161)	(1.870)	(0.032)	(0.049)
Log Total Expenses	17.686	16.956	18.214	1.258***	18.076	17.354	18.600	1.247***	-0.011
	(1.665)	(1.736)	(1.389)	(0.022)	(1.580)	(1.588)	(1.351)	(0.189)	(0.029)
Log Fundraising Expenses	7.560	7.200	7.821	0.622***	5.249	5.089	5.365	0.276***	-0.345**
	(6.848)	(6.668)	(6.964)	(0.096)	(6.284)	(6.179)	(6.357)	(0.082)	(0.125)
Log Program Service Revenue	14.902	12.661	16.526	3.865***	15.500	13.445	16.989	3.544***	-0.321**
	(6.342)	(7.259)	(4.990)	(0.085)	(6.166)	(7.044)	(4.934)	(0.077)	(0.114)
N	3,479	1,462	2,017	3,479	3,479	1,462	2,017	3,479	3,479

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Columns 1-3, 5-7 standard deviations in parentheses. Columns 4, 8 and 9 standard errors in parentheses. N represents number of charities in the panel.

† Data on number of subsidiaries after 2008 not included in this table as the way the Form 990 counted number of subsidiaries change with the new Form 990 creation in 2008.

Table 13: Difference-in-Differences: All Charities Filing in 2000-2012

	# Subsidiaries †		ln(Tot. Contr.)		ln(Grants)	
990-T Filers * PPA	0.236***	0.238***	0.092	0.064	0.230	0.218
	(0.057)	(0.058)	(0.080)	(0.079)	(0.118)	(0.123)
Year Fixed Effects	✓	✓	✓	✓	✓	✓
Charity Fixed Effects	✓	✓	✓	✓	✓	✓
Operation Controls		✓		✓		✓
N	3,479	3,479	3,479	3,479	3,479	3,479

Standard errors, clustered by charity and robust to heteroskedasticity, in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Each number in N represents number of charities in a 13 year panel.

† Number of Subsidiaries only measured through 2007 as data collection changed after the 2008 Form 990 redesign.

Table 14: Triple Difference: 2000-2007 Total Contributions for Treated Subsidiary Creators

	ln(Tot. Contr.)	
990-T Filers * PPA * Sub. Creation	0.369	0.387
	(0.378)	(0.380)
Year Fixed Effects	✓	✓
Charity Fixed Effects	✓	✓
Operation Controls		✓
N	3,479	3,479

Standard errors, clustered by charity and robust to heteroskedasticity

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Each number in N represents number of charities in an 8 year panel.

16. Appendix E – Analysis on Full NCCS Dataset

16.0.1. Figures

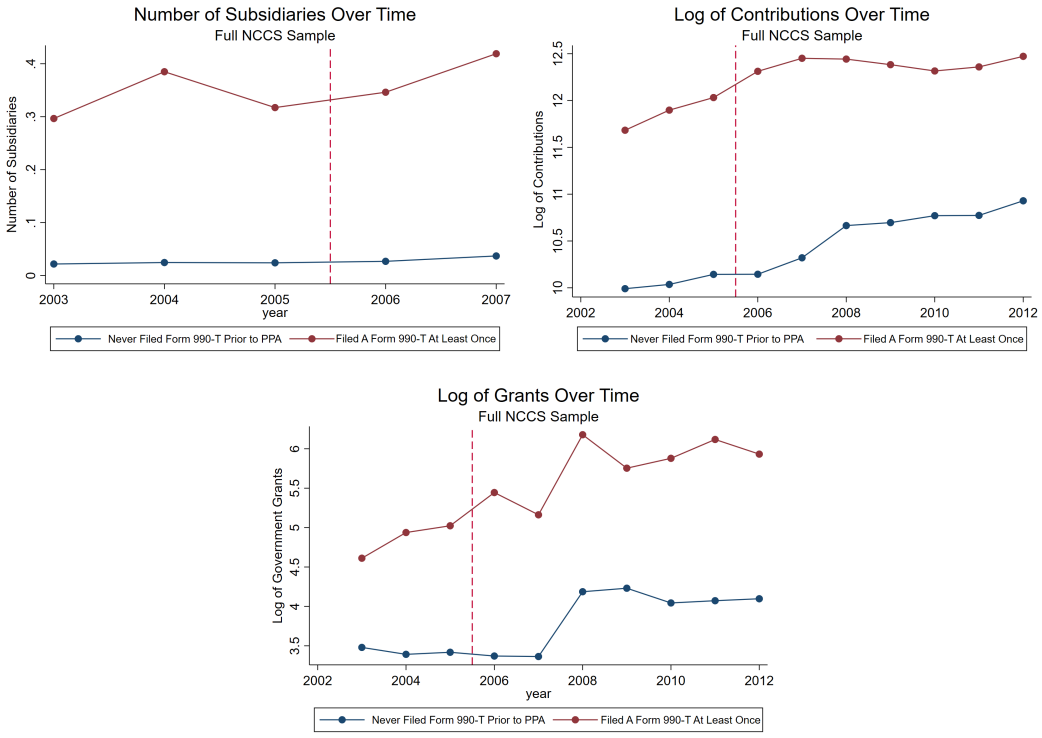


Figure 20: Mean Plots of Outcome Variables, 2004-2012 [Subsidiaries 2004-2007]

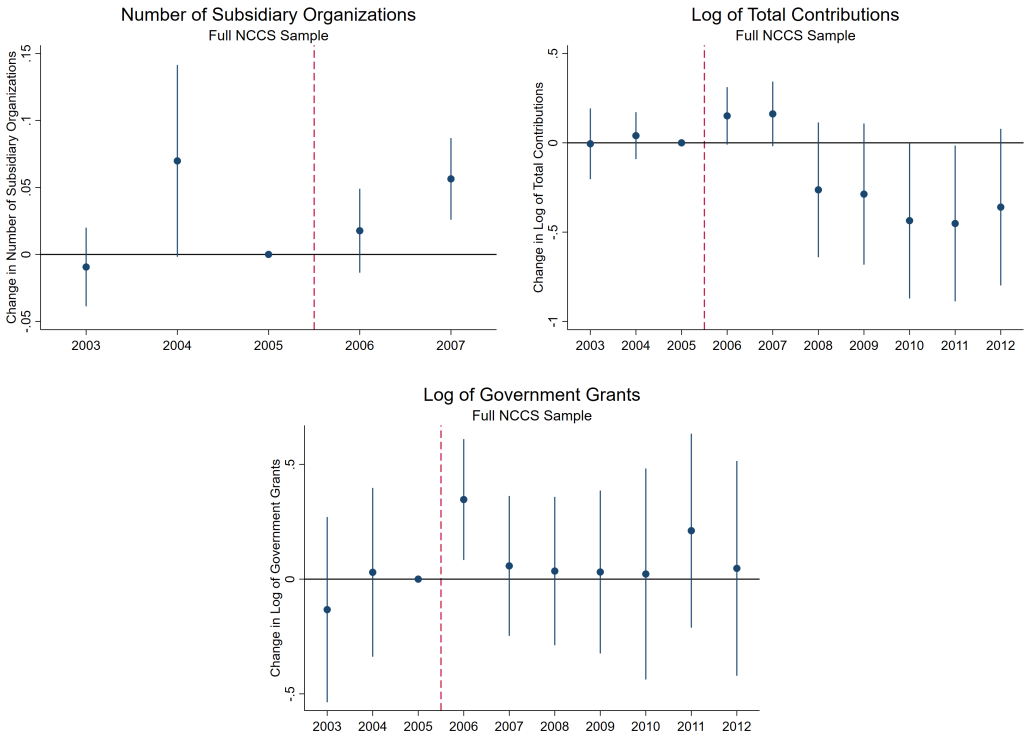


Figure 21: Event Study Diagrams

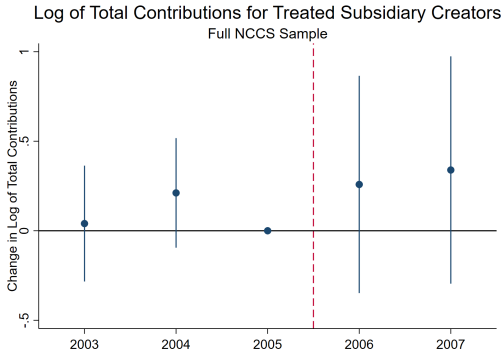


Figure 22: Triple Difference Event Study

16.0.2. Tables

Table 15: Balance Table: 2003-2012 Charities – Full NCCS Sample

	ln(Assets BOY)	ln(Assets EOY)	ln(Liabilities BOY)	ln(Liab. EOY)	ln(Tot. Expn.)	ln(Fund.)	ln(PSR)
(990-T Filers * PPA)	0.279*	0.220	0.334	0.115	0.247	-0.350	0.581*
	(0.123)	(0.118)	(0.226)	(0.221)	(0.127)	(0.201)	(0.248)
Filing Years After PPA	0.638***	0.599***	1.130***	1.124***	0.500***	-0.451***	0.649***
	(0.036)	(0.029)	(0.068)	(0.067)	(0.022)	(0.054)	(0.074)
Filed Form 990-T Before PPA	2.533***	2.358***	4.389***	4.401***	1.969***	2.016***	4.230***
	(0.101)	(0.095)	(0.189)	(0.181)	(0.101)	(0.164)	(0.202)
_cons	12.330***	12.630***	7.630***	7.843***	12.520***	3.398***	7.045***
	(0.027)	(0.022)	(0.054)	(0.054)	(0.017)	(0.044)	(0.059)
N	143,756	143,756	143,756	143,756	143,756	143,756	143,756

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Each number in N represents a charity observation in a given year.

Table 16: Difference-in-Differences: All Charities Filing in 2003-2012 – Full NCCS Sample

	# Subsidiaries †		ln(Tot. Contr.)		ln(Grants)	
990-T Filers * PPA	0.016	0.016	-0.214	-0.164	0.112	0.161
	(0.018)	(0.018)	(0.132)	(0.125)	(0.175)	(0.173)
Year Fixed Effects	✓	✓	✓	✓	✓	✓
Charity Fixed Effects	✓	✓	✓	✓	✓	✓
Operation Controls		✓		✓		✓
N	73,379	73,379	143,756	143,756	143,756	143,756
Clusters	18,326	18,326	22,470	22,470	22,470	22,470

Standard errors, clustered by charity and robust to heteroskedasticity, in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Each number in N represents individual charity observation

† Number of Subsidiaries only measured through 2007 as data collection changed after the 2008 Form 990 redesign.

Table 17: Triple Difference: 2003-2007 Total Contributions for Treated Subsidiary Creators – Full NCCS Sample

	ln(Tot. Contr.)	
990-T Filers * PPA * Sub. Creation	0.220	0.215
	(0.291)	(0.296)
Year Fixed Effects	✓	✓
Charity Fixed Effects	✓	✓
Operation Controls		✓
N	3,807	3,807

Standard errors, clustered by charity and robust to heteroskedasticity

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Each number in N represents number of charities in a 5 year panel.

Table 18: Difference-in-Differences: Log Gross Unrelated Business Income – Full NCCS Sample

	All Charities		Always or Never Filers	
990-T Filers * PPA	-0.739***	-0.745***	0.287	0.203
	(0.177)	(0.176)	(0.193)	(0.193)
Year Fixed Effects	✓	✓	✓	✓
Charity Fixed Effects	✓	✓	✓	✓
Operation Controls		✓		✓
N	143,756	143,756	112,800	112,800
Clusters	22,470	22,470	16,781	16,781

Standard errors, clustered by charity and robust to heteroskedasticity, in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$