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ABSTRACT

Corporate Presence and Charitable Giving: Evidence from Panel Data on Firms and Nonprofits

In this paper, we examine specifically how the presence of corporate firms is associated with nonprofit, charitable activity in US metropolitan areas. We find evidence of a positive association consistent with Card, Hallock, and Moretti (2010) and, due to a longer time horizon with additional information on nonprofit activity, are able to provide additional investigation into how firm location affects size of the nonprofit sector and other nonprofit activities such as fundraising. Our estimates suggest a lower bound on the spillovers such that the presence of an additional firm headquarters within a metropolitan statistical area (MSA) leads to a $8.2 million increase in total charitable contributions within the same MSA. Moreover, a $1 billion rise in the aggregate market value of firms within an MSA corresponds to a $0.8 million increase in local charitable donations.

JEL Classification: L30, D22, H10

Keywords: corporate headquarters, nonprofit organizations, charitable giving

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1. Introduction

Corporate headquarters play a critical, yet often underexplored, role in shaping the philanthropic landscape of American cities. Much of the vital infrastructure that defines the social fabric of metropolitan areas such as hospitals, universities, cultural institutions, and even some of the government programs are delivered by nonprofit organizations that rely on private charitable contributions (Chau and Huysentruyt, 2006). These institutions not only provide essential services but also enhance local amenities and social capital, making cities more attractive to residents and businesses alike. While the importance of local nonprofits is widely acknowledged, less is known about how city-level policies or economic structures influence their financial viability, particularly through the lens of corporate presence.

One policy tool frequently employed by local governments to promote economic development is the use of tax incentives to attract or retain corporate headquarters (Greenstone and Moretti, 2005). These subsidies are often controversial and difficult to justify on traditional economic grounds. Yet, policymakers and advocates frequently point to increased charitable giving as a key spillover benefit of attracting major firms (Smith Hopkins, 2004). There are at least two compelling reasons to expect such a relationship. First, corporations themselves are direct donors to local charities (McElroy and Siegfried, 1986). The existing literature on corporate giving has largely focused on the question of why corporations donate to charity, highlighting benefits to (decreased) tax burden (Asatryan and Joulfaian, 2022), increased employee trust and performance (Reichert and Sohn, 2022; Mayer and Gavin, 2005), and management self-interest (Duquette and Ohrn, 2018).

The practice of corporate charitable giving is most often associated with a broader category of managerial strategy referred to as corporate social responsibility (CSR), defined as "actions that appear to further social good, beyond the interests of the firm and what is required by law" (McWilliams and Siegel, 2001). Prior work has found that CSR practices can increase good will and reputation in local communities and thus increase company value (Ding, Ferreira, and Wongchoti, 2016) but is also multifaceted and varies based on the legal environment and political, cultural and economic factors in an area (Di Giuli and Kostovetsky, 2014; Ding, Ferreira, and Wongchoti, 2019).

While this direct spillover effect is important, less attention has been focused on the potential of the second spillover benefit: indirect positive benefits from corporate headquarters attracting executives and employees who are typically affluent and civically engaged. These individuals are often important contributors to local philanthropic activity (Galaskiewicz, 1997; Werbel and Carter, 2002). In this sense, the relocation or growth of a corporate headquarters could boost local charitable giving both through institutional and individual channels.

The United States has an incredibly robust market for charitable giving. Annually, US charitable giving is nearly 2% of GDP, a relationship that has been stable for the past five decades (List, 2011; Giving USA, 2024). This translated into charitable donations topping $557.16 billion in 2023, 7% of which are given by corporations, tallying $36.55 billion dollars donated (Giving USA, 2024). However, this figure likely understates the true impact of corporations on charitable giving. In 2023, two-thirds of all giving came from individuals, totaling $374.40 billion (Giving USA, 2024). Most of this giving comes from affluent households, defined as households earning more than $200,000 annually, or with at least $1 million in total assets (personal housing excluded). Affluent households contribute more both in terms of the likelihood of giving and the amount donated (The Center on Philanthropy at Indiana University; Indiana University Lilly School of Philanthropy, 2023).[1] As such, there is a potentially large market for charitable contribution spillovers associated with successfully recruiting large firm headquarters.

In their seminal study, Card, Hallock, and Moretti (2010) [CHM] were the first to document a positive empirical association between corporate headquarter density and charitable contributions at the city level. Their findings suggested that attracting or retaining corporate headquarters could enhance the nonprofit sector by increasing the supply of charitable donations. However, their analysis relied largely on cross-sectional data from a single year or first-differenced models based on two years of data, limiting their ability to make strong causal inferences. Moreover, while they examined both corporate and individual donation channels, they did not explore broader indicators of nonprofit sector vitality, such as organizational scale or fundraising activity.

[1] Providing numerical context, 85.1% of affluent households donated to charity compared to 48.8% of the general population. Additionally, affluent households gave on average $34,917 compared to $2,581 given on average by the general population.

We revisit this line of study with added attention to a broader set of charitable activity beyond the potential increase in charitable donations. We compile a novel panel dataset that tracks the location of corporate headquarters for all U.S.-based publicly traded firms from 1998 to 2020, allowing us to study changes over a more extended and recent period that includes major macroeconomic disruptions such as the Great Recession and the COVID-19 pandemic. By leveraging the full panel structure of our data, we implement a rigorous fixed-effects estimation strategy that controls for unobserved, time-invariant heterogeneity across metropolitan statistical areas (MSAs), producing more credible estimates of the relationship between corporate presence and local philanthropic activity. We broaden the scope of outcome variables beyond aggregate charitable giving to include measures of nonprofit sector capacity, such as the number of active organizations and total fundraising expenditures. This more holistic view allows us to assess whether corporate presence strengthens the underlying infrastructure of the nonprofit sector or simply reshuffles existing funding sources.

Prior work has also shown broader localized spillovers associated with the establishment or movement of corporate headquarters. Yang (2024) finds impacts on electoral outcomes for both the location of immigration of a firm, as well as the location of emigration. Corporate headquarter location can offer increased job protection for nearby secondary offices, particularly if a firm is more visible in the local community (Bassanini, Brunello, and Caroli, 2017). Furthermore, initial public offering intensity (measured as the number of IPOs in a state scaled by population) is positively related to measures of education, economic, freedom, and the degree of urbanization of an area (Cichello and Lamdin, 2016). However, not all spillovers are positive. Firm engagement in financial misconduct tends to follow city norms and the behavior of peer firms in an area (Parsons, Sulaeman, and Titman, 2018). As such, firms engaging in negative activities, such as financial misconduct, can see their behavior spillover to other firms if it becomes normalized.

Our findings suggest a robust and economically significant spillover effect of corporate presence on local philanthropy. On average, our most conservative estimates suggest that each additional corporate headquarters is associated with an $8.6 million increase in unweighted charitable contributions and an $8.2 million increase in income-weighted contributions, even after accounting for the presence of high-income individuals and strategic responses by local charities. These estimates are robust to measures testing for reverse causality. Furthermore, our main specification employs an

instrumental variable approach to account for potential endogeneity in corporate headquarters and firm valuation measures. This estimation strategy provides consistent results, demonstrating that increased corporate presence causes charitable giving to increase. We also find that corporate presence correlates with increased nonprofit fundraising expenditures by over $500,000 per added headquarters, suggesting that organizations expand their donative operations in response to greater funding availability. Conversely, we find no evidence that these increases in private giving crowd out government grants, implying a net gain in nonprofit sector resources.

By documenting these relationships using improved data and methodology, our study contributes to two strands of literature. First, we add to research on the economic and social spillovers of corporate site selection, emphasizing that firms can influence local communities not only through employment and tax bases but also through civic and philanthropic channels. Second, we contribute to the growing body of work on corporate social responsibility (CSR) and local economic development by showing that corporate presence has far-reaching effects on the nonprofit ecosystem. In doing so, we provide new evidence to inform ongoing policy debates about the costs and benefits of using public subsidies to attract corporate headquarters.

2. Data

Our empirical analysis combines data from two different sources. The first contains information on publicly traded firms, while the other contains information on charitable organizations in the United States. Both data sets include zip code information for either firms or charities. We used a crosswalk file published by U.S. Department of Labor[2] supplemented with additional hand-coding to map the 5-digit zip codes for each firm or charity address into a Metropolitan Statistical Area (MSA) and a county FIPS code. Our primary analysis is based on matched MSA-level charity-firm data spanning 23 years from 1998 to 2020.[3]

Our data differs from CHM's in two important ways. First, we examine a more recent and longer period (1990-2002 vs. 1998-2020). Second, while CHM's analysis relies on data from 147 large cities, ours relies on data from 347 unique MSAs. CHM

[2] This data provides crosswalk between different geographies for 2011 and is available online at https://www.dol.gov/sites/dolgov/files/owcp/regs/feeschedule/fee/fee11/fs11_gpci_by_msa-ZIP.xls

[3] In our sample, every MSA contains at least one firm headquarters and one charitable organization.

considers Primary Metropolitan Statistical Areas (PMSAs) within the same MSA as distinct cities. This approach may lead to discrepancies between CHM's classification and ours in how headquarter relocations are treated, particularly in large metropolitan areas. For example, CHM classifies a firm as having moved if it relocates its headquarters from Manhattan to Newark. In contrast, we consider this a non-move since the headquarters remain within the New York-Northern New Jersey-Long Island, NY-NJ-PA MSA. Since MSAs are geographical regions with a relatively high population density at their core and close economic ties throughout the region,[4] we argue that treating the entire MSA as a unified economic region enables one to capture the broader labor and business environment in which firms operate. Furthermore, our data from MSAs combined with a longer period resulted in a much larger sample size compared to CHM.[5]

2.1. Firm locations and market valuations

We accessed Compustat Fundamentals Annual data through Wharton Data Research Services (WRDS), a database providing financial, statistical, and market information on publicly traded U.S. companies. This dataset allowed us to retrieve firms' market value and key identifiers, including CUSIP, CIK, and EIN, which we used for unique firm identification. The main shortcoming of the Compustat database is that a firm's headquarters location reflects the most current record reported by the firm. This means once a firm relocates (or updates its incorporate state, address, etc.), all historical observations will be updated and not recording historical information anymore. To resolve this issue, we used firms' historical SEC filings that we obtain through University of Notre Dame's Software Repository for Accounting and Finance. This data is known as the augmented 10-X header dataset and contains historical headquarters location information of publicly traded firms.[6] We merge this data set with

[4] According to United States Census Bureau, MSAs are "core based statistical areas (CBSAs) associated with at least one Urban area that has a population of at least 50,000. The metropolitan statistical area comprises the central county or counties having a high degree of social and economic integration with the central county or counties as measured through commuting." Available at: https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_7

[5] Majority of CHM's results are based on cross-sectional data from a single year or first-difference models that estimate the change in outcome variables from 1990-2000. Therefore, these models have a sample size of 146 to 147 observations. The largest sample that CHM used includes 1470 observations on 147 cities in each year from 1990 to 1999. In comparison, our panel data models use data from more than 6700 observations from 347 MSAs that cover a 23-year period.

[6] This data is available online at https://sraf.nd.edu/sec-edgar-data/10-x-header-data/

the Compustat database using the unique firm identifiers that we have mentioned above.

Table 1 provides a concise summary of the firms located in top 15 MSAs, including their count, market value, and headquarters locations in 1998, 2010, and 2020. These MSAs represent 56% to 65% of all firm headquarters throughout our sample period. The average firm values in our sample increased significantly between 1998 and 2020 and reached $8.43 billion, reflecting the surge in U.S. stock market prices during this period.[7] The number of firm headquarters also show a substantial variation across MSAs and over time. For example, Minneapolis-St. Paul-Bloomington, MN-WI, Los Angeles-Long Beach-Santa Ana, CA, and San Jose-Sunnyvale-Santa Clara, CA MSAs experienced a relatively large decline in the number of headquarters, while San Francisco-Oakland-Fremont, CA MSA and Chicago-Naperville-Joliet, IL-IN-WI MSAs experienced relatively large gains. Many other MSAs experienced a modest net loss. Figure 1 further illustrates these trends for selected MSAs. The largest relative decline in the number of headquarters from 1998 to 2020 occurred in the Minneapolis-St. Paul-Bloomington, MN-WI MSA, while the largest relative growth was in San Francisco-Oakland-Fremont, CA MSA.

2.2. Charitable organizations

For our nonprofit data, we employ the Statistics of Income (SOI) data compiled by the Internal Revenue Service (IRS) and housed by the National Center for Charitable Statistics (NCSS).[8] As the SOI data is a weighted sample of all non-profit organizations containing every non-profit organization with greater than $50 million dollars in assets, we merge in unweighted and weighted counts of the number of nonprofit organizations, total public contributions, total fundraising expenses, and total government grants aggregated to the MSA level.

Table 2 lists the number of charities and total contributions, both weighted and unweighted, by top MSAs for 1998 and 2020. As discussed in CHM, the weighted number of organizations is about 10–11 times larger than the unweighted number, while the weighted sum of all public contributions is only about 1.5 times larger than the unweighted sum. The difference reflects the fact that small charities are sampled less

[7] Throughout the paper, all dollar amounts are presented in 2020 dollars.

[8] We employ the SOI data rather than the NCCS core data for two key reasons. First, we want to match the data employed in CHM. Second, we employ public contributions and fundraising expenditure data that are not available in the NCCS core data.

frequently in the SOI data. As in Table 1, we list aggregate statistics in the top and bottom row, with individual MSA dynamics listed in the remaining rows. Both charitable giving and the distribution of charities are more dispersed than firm concentration. In 2020, the top MSAs accounted for approximately 37% of all charities in the sample, while public contributions received in these MSAs represented 48% of the total. Between 1998 and 2020, the number of charities increased significantly across all top MSAs, with some experiencing more than a twofold increase during this period. This observation aligns with Harrison and Oxley (2025), who document a consistent expansion of the nonprofit sector in terms of the number of nonprofit organizations. However, as shown in Figure 2, some MSAs saw a decline in the number of charities between 2008 and 2013 relative to their 1998 baseline.[9]

Similarly, Figure 3 shows considerable variation in the MSA-specific trends in charitable contributions over our sample period. Notably, the San Francisco-Oakland-Fremont, CA MSA experienced the highest relative growth in charitable contributions from 1998 to 2020, coinciding with the largest increase in the number of headquarters during the same period.

3. Methodology

To empirically assess the impact of corporate headquarters on local charitable activity, we start with a reduced form fixed effects panel data models, which are of the following general form:

$$Y_{it} = \beta' X_{it} + \gamma CorpPres_{it} + \alpha_g + \delta_i + \varepsilon_{it} \qquad (1)$$

where Y_{gt} represent the total weighted or non-weighted public contributions received by charitable organizations in MSA *i* in year *t*, X_{it} is a set of control variables that reflect changes in the underlying characteristics of the MSA, and α_g and δ_i are MSA and time level fixed effects, respectively. We also assess the sensitivity of our results to the inclusion of MSA-specific linear time trends, which are omitted from equation (1) for simplicity. In all models, standard errors are clustered at the MSA level.

The set of control variables X_{it} includes the unemployment rate, median income, total population, and the demographic composition of each MSA—specifically, the

[9] While it may be reasonable to attribute this decline to the Great Recession, it is more likely driven by changes in filing and revocation requirements between 2006 and 2010. For more details, see Harrison and Oxley (2025).

shares of females, Black and White residents, various age groups, and individuals with different levels of educational attainment.[10] As a robustness check, we also estimate models that augment the set of control variables with the total number of high-income individuals, the total number of charities, and aggregate fundraising expenditures.

The main variable of interest if $CorpPres_{it}$, which is a measure of the corporate headquarters presence in an MSA. Following CHM, we consider two measures of corporate presence. These are the count of the number of corporate headquarters and market value of the corporations with headquarters in an MSA in a given year *t*. These alternative measures reflect distinct aspects of corporate presence. The market value-based metric assigns greater weight to firms with higher valuations, capturing variation in firm size and economic footprint. Unlike simple counts of headquarters, this measure can vary over time even without changes in the number of firms, as it reflects fluctuations in firm performance. If larger firms tend to contribute more to local charities and employ more highly compensated executives at their headquarters, then market value may serve as a strong proxy for corporate influence in a city. On the other hand, if the arrival of new firms reduces the giving of existing ones, the estimated coefficient γ represents the net impact of headquarters growth—after accounting for potential crowd-out effects. From a policy perspective, this net effect is arguably the most relevant outcome for local governments and planners.

A key econometric concern in estimating equation (1) is the potential endogeneity of $CorpPres_{it}$, stemming from its correlation with unobserved, MSA-specific factors that may also influence charitable giving. For instance, firms serving local consumers may see their performance rise with positive local economic shocks that simultaneously boost charitable donations, thereby biasing the estimated impact of corporate presence upwards. To mitigate this issue, following CHM, we employ an instrumental variables (IV) approach, using two instruments to estimate the impact of the market value of firms on charitable contributions received by local charities. The first instrument is the aggregate market value of firms producing traded goods.[11] As

[10] All nominal variables are expressed in 2020 dollars. The control variables are sourced from the U.S. Census Bureau and the Bureau of Labor Statistics. Since most of these variables are reported at the county level, we approximate MSA-level values by averaging the corresponding county-level data for all counties within each MSA if the MSA contains multiple counties.

[11] We identify firms producing traded goods using the North American Industry Classification System (NAICS), which is reported in Compustat for each firm. In particular, we assumed that the firms

mentioned in CHM, because these firms primarily serve national or global markets, their performance should be less sensitive to local income fluctuations, helping to isolate the causal effect of corporate presence on charitable contributions. The second instrument is the market value of firms that have maintained a continuous presence in the MSA during our analysis period. By focusing only on firms that are not recent entrants or exits, this strategy helps isolate variation in firm value that is less likely to be influenced by local nonprofit dynamics. Depending on whether entry and exit are systematically related to unobserved determinants of charitable activity, the resulting IV estimates of γ may be larger or smaller than the OLS estimates.

Another potential source of bias arises from reverse causality. Corporations may be more likely to locate in, or emerge from, cities with especially vibrant or successful nonprofit sectors. To explore this possibility, we estimate a dynamic specification of Equation (1), which helps account for pre-existing trends and mitigate concerns about reverse causality. Specifically, following CHM, we estimate:

$$Y_{it} = \beta' X_{it} + \Sigma_{\{s=-2)}^{1} \gamma_s CorpPres_{it+s} + \alpha_g + \delta_i + \epsilon_{it} \qquad (2)$$

which includes the lagged values of the corporate presence variable to account for the fact that changes in charitable giving may not occur immediately following the arrival of new headquarters or fluctuations in the market value of existing firms. Such lags are plausible given the time it may take for firms to establish relationships with local nonprofits or implement giving strategies. On the other hand, we include lead terms to investigate whether changes in corporate presence might be driven by trends in local charitable activity. A significantly positive coefficient on the lead term would suggest that increases in charitable contributions preceded changes in corporate presence, whereas a near-zero estimate would indicate no such anticipatory relationship.

We also estimated models based on equation (1) to examine the effect of corporate presence on additional outcomes, including the number of high earners, the number of charities, total fundraising expenditures, and government grant funding within each MSA. Appendix Table A1 presents summary statistics for all outcome variables used in our empirical analysis.

4. Results

operating in agriculture, forestry, fishing and hunting, mining, utilities, manufacturing, wholesale trade, and information are producers of traded goods.

4.1. Main panel data models

Table 3 reports results from a series of panel data models based on equation (1), where the dependent variable is either the weighted or unweighted sum of charitable contributions in MSAs.[12] In Panel A, our preferred measure of corporate presence is the number of corporate headquarters located in each MSA. Across alternative model specifications, our findings consistently show that each additional corporate headquarters is associated with an increase of $11.8 to $14.9 million in aggregate unweighted contributions, and $9.6 to $16.2 million in aggregate weighted contributions received by charities. These results are robust to inclusion of MSA-specific linear time trends. For comparison, CHM conduct a similar analysis using cross-sectional data from 2000 with selected cities only, and report that an additional corporate headquarter in a MSA is associated with a $10.7 million increase in aggregate weighted charitable contributions. Our estimates are also economically meaningful, corresponding to up to a 3.4% increase in aggregate unweighted charitable contributions and a 2.3% increase in aggregate weighted contributions relative to their respective means.

Turning to the impact of the total market value of corporations headquartered in a MSA, we report in Panel B that a $1 billion increase in total market value is associated with a $0.97 to $1.35 million increase in aggregate unweighted charitable contributions, and a $0.97 to $1.54 million increase in aggregate weighted contributions received by charities. In comparison, CHM report that a $1 billion increase in total market value is associated with a $0.3 to $1.7 million increase in aggregate weighted charitable contributions across different model specifications.

CHM explore whether the presence of corporate headquarters in a city benefits all types of charities equally by categorizing organizations into two broad groups: nationally oriented charities (such as educational institutions, medical and scientific research organizations, and grant-making foundations) and locally oriented charities (such as health and human services providers and cultural organizations). Using first-differenced models, they find that when corporate presence is measured by market value, both groups benefit, whereas when measured by the number of headquarters, nationally oriented organizations appear to receive a greater share of the benefit. Building on this approach, we also estimate separate models for local and national

[12] We also estimated models that jointly include the count of headquarters and aggregate market value of firms as control variables. These models yielded similar results compared to those reported in Table 3.

charities but extend the analysis by using panel data models and disaggregating charitable categories further. Specifically, we examine impacts by charitable subsector, including education, health, human services, and other categories. This more granular approach provides a nuanced understanding of how corporate presence shapes giving patterns across different types of charitable activities. We present our results in Appendix Tables A2 and A3. In contrast to CHM's findings, our panel data models indicate that when corporate presence is measured by market value, the benefits are concentrated among nationally oriented organizations. However, when measured by the number of headquarters, both locally and nationally oriented charities appear to experience increases in charitable contributions. In addition, our findings indicate the impact of increased corporate presence on charities specializing in health, human services, and international and foreign affairs is positive and statistically significant under majority of model specifications.

As discussed in Section 3, the estimates presented in Table 3 using traditional panel data models raise two primary concerns. First is the potential endogeneity of corporate headquarters' entry and exit decisions. Second is the possibility of MSA-specific income shocks that may simultaneously affect both the market value of locally oriented firms and charitable contributions. To address these issues, we report panel instrumental variable (IV) estimates of equation (1), using two distinct instruments for the total market value of firms headquartered in an MSA. The first instrument is the aggregate market value of firms producing traded goods, and the second is the market value of firms that maintained a continuous presence in the MSA throughout the analysis period. Table 4 presents our estimation results. The first-stage regressions indicate that both instruments are strongly correlated with the total market value of firms in the MSA. The corresponding first-stage F-statistics provide additional support, rejecting the null hypothesis that the instruments are weakly correlated with the endogenous regressor at conventional levels of statistical significance. The second stage results closely mirror those obtained from the traditional panel data models. Specifically, a $1 billion increase in the total market value of firms headquartered in an MSA results in a $0.89 to $1.08 million increase in aggregate unweighted charitable contributions, and a $0.90 to $1.07 million increase in aggregate weighted contributions received by local charities. These findings are consistent with those of CHM, who similarly report that their OLS and IV estimates yield comparable results. This consistency suggests that neither the endogeneity of corporate headquarters' location decisions nor MSA-specific income shocks are likely to be major sources of bias in our estimates.

4.2. Robustness checks

A potential concern for the validity of our findings is the possibility of reverse causality, whereby firms may be more likely to locate in cities with particularly active or well-established nonprofit sectors. Although this is unlikely, to examine this, we estimate equation (2) that includes both lagged and lead values of the corporate presence variable and present our results in Table 5. As discussed in Section 3, lagged terms account for the fact that changes in charitable giving may not occur immediately after the arrival of a new headquarters or fluctuations in firm market value, reflecting the time needed for firms to form relationships with local nonprofits or implement giving strategies. Lead terms, on the other hand, allow us to examine whether changes in corporate presence are anticipated by prior trends in charitable activity. A significantly positive coefficient on the lead terms would suggest that charitable contributions increase before changes in corporate presence, indicating potential reverse causality; statistically insignificant estimates would suggest no such anticipatory relationship.

In Table 5, Panel A, columns 1 and 4, the inclusion of a lagged value for the number of corporate headquarters yields a large, positive, and statistically significant coefficient, while the contemporaneous effect becomes insignificant. This pattern suggests that changes in corporate presence affect charitable giving with a delay—likely reflecting the time required for firms to build relationships with local nonprofits and implement giving strategies. When two lagged terms are included (column 2), the second-period lag remains statistically significant for unweighted contributions, though this does not extend to weighted contributions. Panel B shows similar dynamics when corporate presence is measured by the total market value of headquartered firms. Importantly, lead terms introduced in columns 3 and 4 produce small and statistically insignificant coefficients—except for a marginally significant effect in column 4 of Panel B—providing suggestive evidence against reverse causality.

The estimated effects in the dynamic specification are comparable in magnitude to our baseline estimates in Table 3, reinforcing the robustness of our main results. Overall, our findings from this analysis are also broadly consistent with those reported in CHM.

The share of Americans who donated to charity declined from 50.9% in 2018 to 46.9% in 2020, following the onset of the COVID-19 pandemic (Indiana University

Lilly Family School of Philanthropy, 2024). To assess whether the pandemic period may have biased our results, we re-estimate Equation (1) excluding data from the COVID period (2019 and 2020). As shown in Appendix Table A4, omitting these years has a minimal impact on our findings. The estimated effects of corporate presence on charitable contributions remain positive and statistically significant across vast majority of model specifications.

Another period that may have an impact on our estimates is the Great Recession that lasted from December 2007 to June 2009, which was started by the nationwide downturn of U.S. housing prices and later triggered a global financial crisis. Appendix Table A4 shows that excluding years 2007-2009 from our analysis sample yields very similar results compared to the baseline estimates reported in Table 3. Therefore, we conclude that our findings are not sensitive to exclusion of either the Covid or Great Recession periods from the sample.

4.3. Underlying mechanisms

We have shown that both the presence and market value of corporate headquarters are significantly associated with increased donations to local charities. CHM propose two primary channels through which corporate headquarters may influence charitable giving. First, corporations may contribute directly to local nonprofits. Second, the presence of corporate headquarters tends to raise the number of highly compensated individuals in a city who may be more likely to donate personally and actively participate in local fundraising efforts, thereby enhancing overall charitable giving. However, one additional mechanism not explicitly considered by CHM is the potential behavioral response of charitable organizations themselves. As corporate presence increases in a metropolitan area, local nonprofits may intensify their fundraising efforts to attract corporate donations. The strategic behavior of charitable organizations in fundraising decisions has been explored theoretically and supported empirically in the existing literature, which finds that increased fundraising can lead to higher charitable contributions.[13] In this subsection, we aim to shed light on the relative importance of these different channels.

Following CHM, we begin by estimating the effect of corporate headquarters on the number of high-income individuals (defined as those with annual personal income

[13] See, for instance, Name-Correa and Yıldırım (2013); Mungan and Yörük (2012); List (2011); Yörük (2009); Edwards and List (2014); and Yörük (2012).

exceeding $100,000) within an MSA. Panel A of Table 6 indicates that the addition of a corporate headquarters in an MSA is associated with an increase of approximately 3,478 individuals earning over $100,000 per year. This effect becomes slightly larger when we examine the association one period after the headquarters' entry. As a robustness check, we also conduct a placebo test by estimating the effect of corporate presence on the number of high earners one period *before* the headquarters' entry. As expected, the coefficient in this model is statistically insignificant, supporting the causal interpretation of our main estimates. Similarly, we document in panel B of the same table that an increase in total market values of firms in a MSA is associated with an increase in the number of high earners.

Next, we examine whether local charitable organizations respond strategically to changes in corporate presence within an MSA. Table 7 shows that while the addition of a corporate headquarters does not have a statistically significant effect on the weighted number of charities in the same MSA, a $1 billion increase in the total market value of headquarters is associated with an increase of approximately 0.27 in the weighted number of charities. This effect becomes more pronounced one period later, rising to an estimated increase of 0.42 charities. An increase in the number of corporate headquarters within an MSA is associated with a rise in total weighted fundraising expenditures in that area. Specifically, our results in Table 7 indicate that each additional corporate headquarters is associated with an increase of just over $500,000 in aggregate fundraising spending within the same MSA.

One possible explanation for the rise in fundraising expenditures is a decline in government grant funding. Alternatively, local charities might reduce their efforts to secure external government grants in response to increased corporate presence in the MSA. However, our findings suggest that greater corporate presence does not crowd out government grants. We further test the robustness of results for the potential endogeneity of corporate presence and present the findings in Appendix Table A5.[14] Using either the aggregate market value of firms producing traded goods or market value of firms that maintained a continuous presence in the MSA throughout the analysis period as an instrument for the total market value of firms in the MSA, we find that a $1 billion increase in the total market value of headquarters is associated with an increase of 0.25 in the weighted number of charities. This estimate is remarkably similar

[14]We note that Appendix Table A.5 omits the first stage estimates from the 2SLS estimator as they are equivalent to the estimates from Table 4.

to the OLS estimate given in Panel B, Table 7. Similarly, in the IV models, the estimated effect of total market value of firms in the MSA on the weighted number of charities becomes more pronounced one period later.

Having established that the presence of corporate headquarters significantly influences both the number of high-income individuals in a city and the strategic behavior of local charities, we now examine the extent to which these channels account for the overall impact of corporate presence on charitable giving. Specifically, the models in Table 8 build on the baseline specifications from panel A of Table 3 by adding controls for the number of individuals earning over $100,000 annually, the weighted number of charities, and aggregate weighted fundraising expenditures. The first specification in Table 8 replicates the main results from Table 3 for comparison. In specification (2), the impact of high earner population on both unweighted and weighted charitable contributions is positive and highly significant. Inclusion of this variable reduces the association with corporate presence, although its relationship remains statistically significant.

While our baseline specification shows that each additional corporate headquarters is associated with an increase of $14.9 million in aggregate unweighted contributions, controlling for high earners reduces this estimate to $9.2 million. A similar pattern holds for weighted contributions, where the estimated relationship declines from $16.2 million in the baseline to $8.9 million after accounting for high earners. Specifications (3) and (4) separately control for the weighted number of charities and fundraising expenditures. Relative to the baseline model, the inclusion of these variables leads to a modest reduction in the estimated relationship between an additional corporate headquarters and charitable contributions. However, the decline is less pronounced than when controlling for the high-income population. The remaining specifications in Table 8 jointly control for both the high-income population and either the weighted number of charities or weighted fundraising expenditures. These models generally produce the most conservative estimates. Notably, after accounting for both the number of high earners and fundraising activity, we find that each additional corporate headquarters is associated with an $8.6 million increase in aggregate unweighted contributions and an $8.2 million increase in weighted contributions. This finding stands in contrast to CHM's results. In both their cross-sectional and first-difference models, CHM concluded that increases in the number of corporate

headquarters had virtually no impact on charitable contributions within a city when the share of workers earning over $100,000 are controlled for.[15]

Table 9 presents analogous results using the total market value of firms in the MSA as the primary measure of corporate presence. The findings show that controlling for the number of high-income individuals or the weighted number of charities reduces the estimated relationship between total market value and both the unweighted and weighted charitable contributions received by local nonprofits. In these models, the estimated effect of total market value of firms also loses its statistical significance. These findings are in line with those of CHM. However, when we simultaneously control for fundraising expenditures and the number of high earners, the estimated relationship remains statistically significant. In these models, we find that a $1 billion increase in the total market value of firms is associated with an increase of approximately $0.8 million in aggregate unweighted contributions and $0.9 million in weighted contributions.

4.4. Corporate giving and government grants

We have already demonstrated the positive impact of corporate headquarters on charitable donations. Another important question is whether this increased private support leads to a corresponding reduction in public funding for local charities. CHM explored this possibility, raising concerns about a potential "reverse crowd-out" effect, where government support diminishes in response to greater private sector contributions. In the previous section, we discussed the possibility that local charities may strategically reduce their efforts to secure external government grants when corporate presence in the MSA increases. However, our empirical findings thus far indicate that greater corporate presence does not, in fact, crowd out government grants. In this section, we further investigate this issue to better understand the interplay between private and public support for charitable organizations and to assess whether the potential substitution effect between the two sources of funding has any meaningful implications for the nonprofit sector.

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[15] We previously addressed the potential endogeneity of corporate presence using IV approach and found results that were consistent with our baseline estimates, suggesting that endogeneity is unlikely to drive the observed effects. We acknowledge, however, that charitable activity itself may be endogenous. To explore this, we estimated a model in which the dependent variable is defined as the ratio of weighted total contributions to the weighted number of charities, thereby incorporating charitable activity into the outcome measure. In this specification, we continue to find a statistically significant relationship. Specifically, an additional corporate headquarters is associated with a $2,000 increase in the weighted contributions per charity.

CHM employed first-differenced models using data from 1990 and 2000, along with instrumental variable (IV) methods, to examine the relationship between government grants and charitable contributions. We extend their approach by conducting a similar analysis using panel data techniques. Specifically, we estimate models based on equation (1), but with the dependent variable replaced by either the total unweighted or weighted amount of government grants received within an MSA. Our primary variable of interest is the level of public contributions from non-governmental sources. To address the possibility that unobserved factors influencing government aid may also be correlated with private donations, we follow CHM's strategy and use the number or total market value of locally headquartered firms as instruments for private charitable contributions. The results of our analysis are presented in Table 10. Panel C reports results from a baseline ordinary least squares (OLS) specification for comparison. The first-stage regression results reported in Panels A and B confirm that both instruments are strongly correlated with private contributions. In the second-stage regressions, we find that public (non-governmental) contributions generally have no statistically significant effect on government grants, with one exception. In Panel A, when the number of firms is used as an instrument for public contributions, we observe a statistically significant "crowding in" effect. Specifically, each additional dollar of private donations is associated with an increase of up to 47 cents in government grants. Overall, our results from this analysis are consistent with CHM's findings, which suggest that government support is largely unresponsive to fluctuations in private charitable contributions.

5. Conclusion

This paper revisits and extends CHM on the relationship between corporate presence and charitable giving in U.S. metropolitan areas. Using a panel dataset covering 1998 to 2020 and employing fixed-effects estimation, we provide new evidence that the presence of corporate headquarters has a sizable and statistically significant impact on local charitable contributions.

Our baseline estimates indicate that each additional corporate headquarters within a metropolitan area is associated with an increase of approximately $14.9 million in aggregate unweighted charitable contributions and $16.2 million in income-weighted contributions. Notably, even under our most conservative specifications that control for the number of high-income individuals, local fundraising expenditures, and the

number of active nonprofit organizations, these relationships remain substantial: approximately $8.6 million and $8.2 million for unweighted and weighted contributions, respectively. We also find that a $1 billion increase in the total market value of locally headquartered firms corresponds to an increase of roughly $0.8 million in unweighted charitable contributions and $0.9 million in weighted contributions. These results are both economically meaningful and statistically robust across a range of model specifications, and they stand in contrast to CHM's conclusion that the relationship between corporate presence and local giving largely disappears once high-income individuals are accounted for.

Taking a more granular approach than CHM, we find that the effects of corporate presence on charitable contributions vary by how corporate presence is measured. When measured by total market value, the gains are concentrated among nationally oriented nonprofit organizations. In contrast, when measured by the number of corporate headquarters, we observe significant increases in charitable contributions for both locally and nationally oriented charities. This pattern diverges from CHM's findings, where market value was associated with increases for both types of organizations, but headquarter count disproportionately correlated with nationally oriented nonprofits. Moreover, our results show that increased corporate presence has a positive and statistically significant impact (across most model specifications) on charitable contributions to organizations focused on health, human services, and international and foreign affairs.

We also explore the mechanisms behind these patterns. Similar to CHM, we find that corporate presence leads to a measurable increase in the number of high-income individuals. In particular, we document that each new headquarters is associated with roughly 3,478 additional individuals earning over $100,000 annually in the same MSA. In addition, we find evidence of a strategic response by nonprofits: fundraising expenditures rise by more than $500,000 relative to the entry of a corporate headquarters, suggesting that charities adjust their behavior to attract private donations. Importantly, despite increases in private giving and nonprofit activity, we find no evidence that government grant funding is reduced as a result. Across multiple specifications, we fail to detect consistent signs of crowding out, and in some cases observe marginal evidence of a "crowding in" effect, where private contributions may be positively correlated with public support.

Our results provide relevant implications for policymakers, particularly at the state and municipal levels. These governments tend to partner with nonprofit organizations quite regularly for service provision (National Council of Nonprofits, 2025). As such, increased firm activity and municipal level economic activity assist state and local governments in multiple ways. First, the increased economic output grows the tax-base, directly increasing the revenues received by state and local governments. Furthermore, our results demonstrate that the increase in firms and economic valuation having a spillover into charitable contributions directly funds the partner organizations that state and local governments use to provide public services.

Furthermore, the mechanisms identified provide further context and relevant application for policymakers. Our finding that a new corporate headquarter office is associated with an additional 3,478 individuals earning over $100,000 in the same MSA gives a direct estimate of impact for taxable income for a state or municipality. That said, this number does come with some limitations. Our association is not a causal number, nor are we able to determine where the new individuals earning over $100,000 are new residents, current residents who increased their income, or both. We leave answering these questions in a causal manner for future research.

What we can clearly demonstrate is that the spillovers associated with giving to charities do not crowd out public support for nonprofit organizations. As such, we confidently state that the spillovers we identify in this paper are growing public support on multiple fronts. Therefore, our findings help provide a baseline for benefit-cost analysis in creating subsidiaries and incentive packages to attract companies to relocate.

Combined, these findings contribute to two important strands of literature. First, we add to the body of research examining the economic and social spillover effects of firm location decisions by highlighting charitable giving as a key local externality. Second, by investigating the behavioral responses of high earners and nonprofits, our work informs the growing literature on CSR and the broader role of the private sector in shaping local civic life. Compared to CHM, our analysis provides a more nuanced and updated understanding of how corporate presence influences the nonprofit sector, drawing on a longer time horizon and richer set of outcome variables. While finding some differences that we have already discussed, we do want to note that we find one of the main takeaways of the CHM paper, increased corporate presence and market valuation spills over into charitable contributions, holds, which is itself a contribution

and a reassurance given the concerns surrounding replication in economics and across the social sciences (Ankel-Peters, Fiala, and Neubauer, 2023).

Future research could further explore heterogeneity across nonprofit subsectors or examine how differences in corporate governance or CSR strategy at the firm level shape local philanthropic patterns. Furthermore, given our data restriction on publicly traded firms, future research could explore whether our results hold when examining private companies and startups. Understanding the full range of mechanisms through which corporate actors influence civic life remains a critical question at the intersection of economics, management, and public policy.

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Tables

Table 1. Number, market value, and headquarters location of publicly traded firms

	1998	2010	2020
Number of active firms	9911	7446	8055
Mean market value (millions)	1588	2981	8430
Location of Headquarters (number of active firms)			
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	1339	1094	1368
Chicago-Naperville-Joliet, IL-IN-WI MSA	453	600	783
Los Angeles-Long Beach-Santa Ana, CA MSA	582	397	370
Boston-Cambridge-Quincy, MA-NH MSA	503	427	609
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	302	258	293
Houston-Sugar Land-Baytown, TX MSA	312	281	219
Minneapolis-St. Paul-Bloomington, MN-WI MSA	253	117	93
San Jose-Sunnyvale-Santa Clara, CA MSA	372	184	160
Atlanta-Sandy Springs-Marietta, GA MSA	245	134	145
Dallas-Fort Worth-Arlington, TX MSA	364	243	215
Bridgeport-Stamford-Norwalk, CT MSA	139	78	76
Cleveland-Elyria-Mentor, OH MSA	86	48	41
St. Louis, MO-IL MSA	94	66	38
San Francisco-Oakland-Fremont, CA MSA	398	475	798
Pittsburgh, PA MSA	83	53	45
Share of firms in 15 MSAs (%)	55.7	59.8	65.2

Notes: Based on CompuStat database. Headquarters assigned to MSA based on zip code for corporate headquarters. Market value expressed in 2020 dollars.

Table 2. Number of charitable organizations and public contributions

	Unweighted				Weighted			
	Number of charities		Public contributions		Number of charities		Public contributions	
	1998	2020	1998	2020	1998	2020	1998	2020
Full sample	11327	21691	76040	223351	129607	212565	128037	328999
Location of Charities								
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	1137	2191	10414	27603	11613	18953	16705	40201
Chicago-Naperville-Joliet, IL-IN-WI MSA	488	938	2882	10546	4314	7354	4667	14752
Los Angeles-Long Beach-Santa Ana, CA MSA	478	921	3987	7654	6428	9190	5998	12339
Boston-Cambridge-Quincy, MA-NH MSA	417	692	5842	22010	4310	5453	7124	24882
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	462	678	1610	10065	3775	6145	3162	12864
Houston-Sugar Land-Baytown, TX MSA	137	267	941	1667	1740	3354	1504	2655
Minneapolis-St. Paul-Bloomington, MN-WI MSA	187	404	1031	2748	2538	4003	1783	4243
San Jose-Sunnyvale-Santa Clara, CA MSA	59	138	1043	3334	946	1678	1467	4095
Atlanta-Sandy Springs-Marietta, GA MSA	187	326	4182	6014	1738	3502	5254	7310
Dallas-Fort Worth-Arlington, TX MSA	165	429	1611	3451	1702	3843	2810	5709
Bridgeport-Stamford-Norwalk, CT MSA	79	135	427	2682	1431	1753	766	3036
Cleveland-Elyria-Mentor, OH MSA	184	216	1066	1413	1466	1852	1435	2239
St. Louis, MO-IL MSA	145	408	919	1508	1470	2560	1281	2491
San Francisco-Oakland-Fremont, CA MSA	309	659	2037	14816	4984	5614	3881	19081
Pittsburgh, PA MSA	201	400	820	1244	1732	3199	1932	2325
Share of charities in 15 MSAs (%)	40.9	40.6	51.0	52.3	38.7	36.9	46.7	48.1

Notes: Based on 501c(3) organizations filing long forms in the IRS Statistics of Income data files. Contributions are in millions of 2020 dollars. Organizations are assigned to MSA based on zip code for tax filing.

Table 3. The effect of corporate presence on charitable giving: Baseline models

	Unweighted public contributions			Weighted public contributions		
A. Number of firms in MSA	14.205***	14.867***	11.832***	15.264***	16.181***	9.563***
	(4.289)	(3.123)	(3.453)	(5.167)	(3.523)	(3.501)
No. of Obs.	6722	6710	6710	6722	6710	6710
B. Market value of firms in MSA	1.351**	1.031*	0.970*	1.547**	1.053	0.965**
	(0.629)	(0.566)	(0.526)	(0.754)	(0.678)	(0.458)
No. of Obs.	6722	6710	6710	6722	6710	6710
Controls	No	Yes	Yes	No	Yes	Yes
MSA-specific linear time trends	No	No	Yes	No	No	Yes

Notes: All models include metropolitan statistical area (MSA) and year fixed effects. The set of control variables is described in the main text. Unweighted and weighted public contributions are measured in millions of 2020 dollars. Market value of firms in MSA is measured in billions of 2020 dollars. The signs *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 4. The effect of corporate presence on charitable giving: IV models

A. Instrument : Market value of producers of tradeable products				
	Unweighted public contributions		Weighted public contributions	
Market value of firms in MSA	1.008	0.890*	0.979	0.899*
	(0.624)	(0.527)	(0.733)	(0.496)
No. of Obs.	6710	6710	6710	6710
Controls	Yes	Yes	Yes	Yes
MSA-specific linear time trends	No	Yes	No	Yes
First stage results				
	Market value of all firms in MSA			
Market value of producers of tradeable products	1.224***		1.199***	
	(0.124)		(0.103)	
F-stat	136.08		96.99	
Controls	Yes		Yes	
MSA-specific linear time trends	No		Yes	
B. Instrument : Market value of stayers				
	Unweighted public contributions		Weighted public contributions	
Market value of firms in MSA	0.968*	1.079**	0.961	1.069**
	(0.519)	(0.522)	(0.620)	(0.458)
No. of Obs.	6710	6710	6710	6710
Controls	Yes	Yes	Yes	Yes
MSA-specific linear time trends	No	Yes	No	Yes
First stage results				
	Market value of all firms in MSA			
Market value of stayers	1.199***		1.080***	
	(0.103)		(0.034)	
F-stat	136.08		982.77	
Controls	Yes		Yes	
MSA-specific linear time trends	No		Yes	

Notes: All models include metropolitan statistical area (MSA) and year fixed effects. The set of control variables is described in the main text. Unweighted and weighted public contributions are measured in millions of 2020 dollars. Market value of firms in MSA is measured in billions of 2020 dollars. The signs *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 5. The effect of corporate presence on charitable giving: Dynamic models

	Unweighted public contributions				Weighted public contributions			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
A. Number of firms in MSA								
Year *t*	2.117	6.324	11.769**	-0.365	3.716	45.781***	5.455	-1.251
	(3.720)	(4.136)	(4.752)	(2.753)	(5.464)	(10.993)	(5.791)	(4.545)
Year *t*-1	12.335***	-3.403		11.422***	7.749*	-9.831*		6.460
	(3.131)	(4.168)		(3.311)	(4.289)	(5.319)		(4.119)
Year *t*-2		14.786***				-18.002		
		(4.219)				(11.373)		
Year *t*+1			-2.448	1.822			1.269	3.927
			(2.646)	(2.357)			(4.208)	(3.404)
No. of Obs.	6309	5936	6306	5933	6309	5936	6306	5933
B. Market value of firms in MSA								
Year *t*	-0.046	-0.218	1.293***	0.458**	-0.036	-0.128	1.208***	0.413*
	(0.292)	(0.329)	(0.389)	(0.230)	(0.284)	(0.340)	(0.305)	(0.222)
Year *t*-1	1.744***	1.452***		1.525***	1.718***	1.679***		1.490***
	(0.419)	(0.310)		(0.439)	(0.384)	(0.380)		(0.401)
Year *t*-2		0.680***				0.192		
		(0.226)				(0.152)		
Year *t*+1			-0.157	-0.293			-0.192	-0.341*
			(0.193)	(0.223)			(0.181)	(0.196)
No. of Obs.	6309	5936	6306	5933	6309	5936	6306	5933

Notes: All models include a set of control variables as discussed in the text, metropolitan statistical area (MSA) and year fixed effects. Unweighted and weighted public contributions are measured in millions of 2020 dollars. Market value of firms in MSA is measured in billions of 2020 dollars. The signs *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 6. The effect of corporate presence on high earners

	Number of high earners		
	Year t-1	Year t	Year t+1
A. Number of firms in MSA	2907.968	3478.195*	3839.967*
	(1892.549)	(1941.640)	(2010.172)
No. of Obs.	6309	6710	6306
B. Market value of firms in MSA	272.218	412.847*	646.824**
	(210.905)	(238.040)	(272.004)
No. of Obs.	6309	6710	6306

Notes: All models include a set of control variables as discussed in the text, metropolitan statistical area (MSA) and year fixed effects. High earners are those who earn more than $100,000 a year in 2020 dollars. Market value of firms in MSA is measured in billions of 2020 dollars. The signs *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 7. The effect of corporate presence on charities

	Weighted number of charities		Weighted fundraising expenditures		Weighted government grants	
	Year *t*	Year *t*+1	Year *t*	Year *t*+1	Year *t*	Year *t*+1
A. Number of firms in MSA	1.065	1.067	0.532**	0.504**	1.537	1.370
	(1.685)	(1.468)	(0.225)	(0.232)	(2.345)	(2.477)
No. of Obs.	6710	6306	6710	6306	6710	6306
B. Market value of firms in MSA	0.261*	0.415**	-0.021	-0.020	-0.217	-0.201
	(0.142)	(0.166)	(0.040)	(0.044)	(0.240)	(0.244)
No. of Obs.	6710	6306	6710	6306	6710	6306

Notes: All models include a set of control variables as discussed in the text, metropolitan statistical area (MSA) and year fixed effects. Weighted fundraising expenditures and government grants are measured in millions of 2020 dollars. Market value of firms in MSA is measured in billions of 2020 dollars. The signs * and ** denote statistical significance at the 10% and 5% levels, respectively.

Table 8. The effect of number of firms, charity activity, and high earners on charitable contributions

	Unweighted public contributions						Weighted public contributions					
	(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)
Number of firms in MSA	14.867***	9.172***	13.856***	11.030***	9.481***	8.643***	16.181***	8.947**	14.742***	10.683***	9.401***	8.153***
	(3.123)	(2.997)	(3.000)	(2.273)	(1.839)	(2.156)	(3.523)	(3.800)	(3.368)	(2.175)	(1.866)	(2.189)
Number of high earners		0.002***			0.001***	0.001***		0.002***			0.002***	0.001***
		(0.000)			(0.000)	(0.000)		(0.001)			(0.000)	(0.000)
Weighted number of charities			0.949***		0.779***				1.351***		1.143***	
			(0.144)		(0.107)				(0.196)		(0.149)	
Weighted fundraising expenditures				7.208***		6.088***				10.329***		9.141***
				(0.900)		(0.698)				(0.850)		(0.605)
No. of Obs.	6710	6710	6710	6710	6710	6710	6710	6710	6710	6710	6710	6710

Notes: All models include a set of control variables as discussed in the text, metropolitan statistical area (MSA) and year fixed effects. Unweighted and weighted public contributions, and weighted fundraising expenditures are measured in millions of 2020 dollars. The signs ** and *** denote statistical significance at the 5% and 1% levels, respectively.

Table 9. The effect of firm value, charity activity, and high earners on charitable contributions

	Unweighted public contributions						Weighted public contributions					
	(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)
Market value of firms in MSA	1.031*	0.240	0.780	1.203**	0.162	0.797*	1.053	0.067	0.695	1.292***	-0.050	0.882**
	(0.566)	(0.287)	(0.536)	(0.495)	(0.257)	(0.424)	(0.678)	(0.289)	(0.649)	(0.483)	(0.208)	(0.399)
Number of high earners		0.002***			0.002***	0.001***		0.002***			0.002***	0.001***
		(0.000)			(0.000)	(0.000)		(0.001)			(0.000)	(0.000)
Weighted number of charities			0.963***		0.763***				1.373***		1.132***	
			(0.215)		(0.142)				(0.278)		(0.184)	
Weighted fundraising expenditures				8.065***		6.661***				11.176***		9.760***
				(1.005)		(0.757)				(0.960)		(0.700)
No. of Obs.	6710	6710	6710	6710	6710	6710	6710	6710	6710	6710	6710	6710

Notes: All models include a set of control variables as discussed in the text, metropolitan statistical area (MSA) and year fixed effects. Unweighted and weighted public contributions, and weighted fundraising expenditures are measured in millions of 2020 dollars. Market value of firms in MSA is measured in billions of 2020 dollars. The signs *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

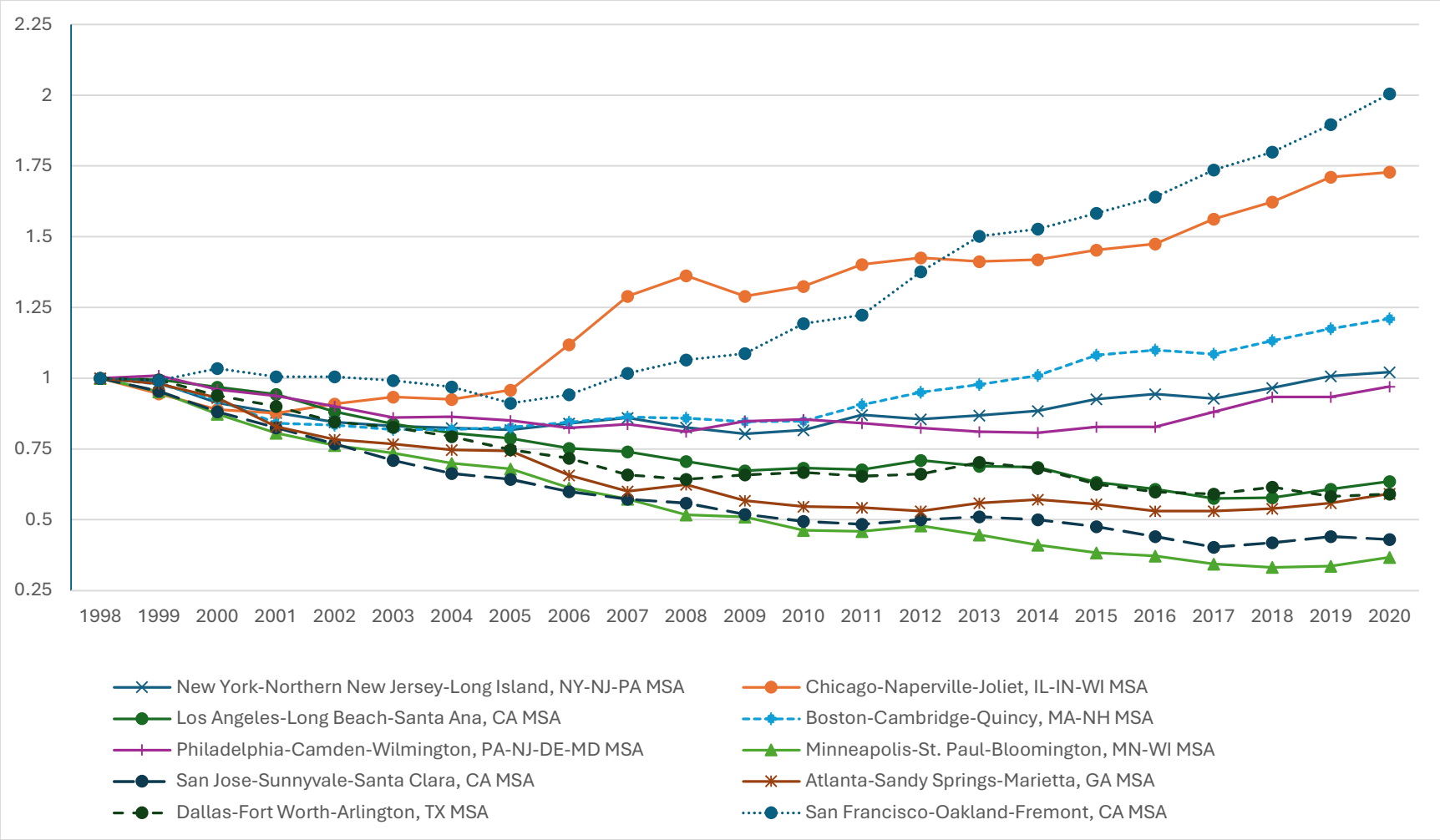
Table 10. The effect of charitable contributions on government grants

A. Instrument : Number of firms				
	Unweighted government grants		Weighted government grants	
Weighted public contributions	0.238**	0.466**	0.095	0.017
	(0.115)	(0.209)	(0.136)	(0.168)
No. of Obs.	6710	6710	6710	6710
Controls	Yes	Yes	Yes	Yes
MSA-specific linear time trends	No	Yes	No	Yes
First stage results				
	Weighted public contributions			
Number of firms	16.181***		9.563***	
	(3.523)		(3.505)	
F-stat	21.101		7.465	
Controls	Yes		Yes	
MSA-specific linear time trends	No		Yes	
B. Instrument : Market value of firms				
	Unweighted government grants		Weighted government grants	
Weighted public contributions	0.006	0.167	-0.206	-0.116
	(0.186)	(0.143)	(0.330)	(0.171)
No. of Obs.	6710	6710	6710	6710
Controls	Yes	Yes	Yes	Yes
MSA-specific linear time trends	No	Yes	No	Yes
First stage results				
	Weighted public contributions			
Market value of firms in MSA	1.053		0.965**	
	(0.678)		(0.459)	
F-stat	2.415		4.431	
Controls	Yes		Yes	
MSA-specific linear time trends	No		Yes	
C. OLS				
	Unweighted government grants		Weighted government grants	
Weighted public contributions	0.238**	0.078	0.256**	0.030
	(0.098)	(0.056)	(0.103)	(0.057)
No. of Obs.	6710	6710	6710	6710
Controls	Yes	Yes	Yes	Yes
MSA-specific linear time trends	No	Yes	No	Yes

Notes: All models include a set of control variables as discussed in the text, metropolitan statistical area (MSA) and year fixed effects. Unweighted and weighted government grants and weighted public contributions are measured in millions of 2020 dollars. Market value of firms in MSA is measured in billions of 2020 dollars. The signs **, and *** denote statistical significance at the 5% and 1% levels, respectively.

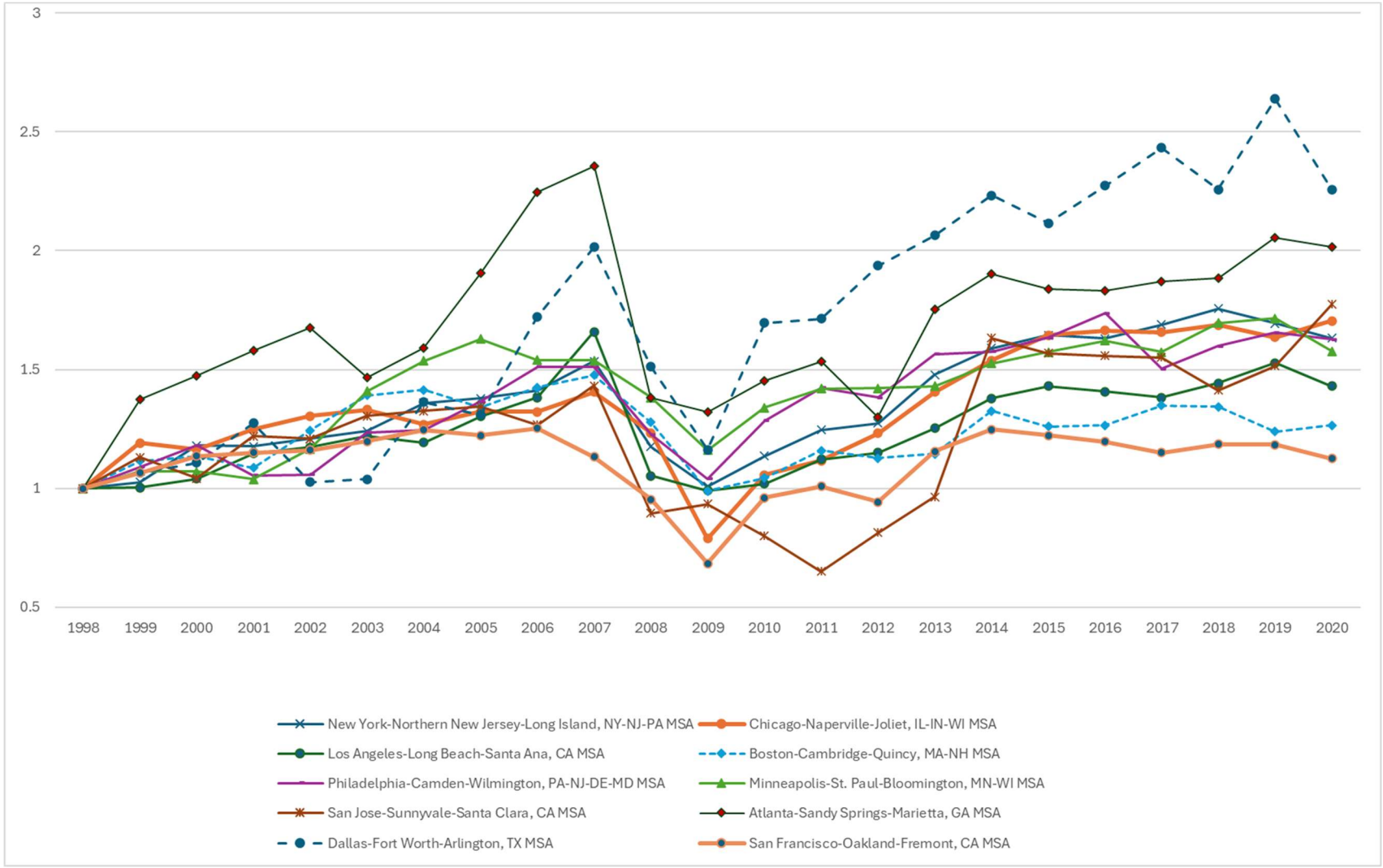
Figures

Figure 1. Changes in the number of firm headquarters in selected MSAs over time



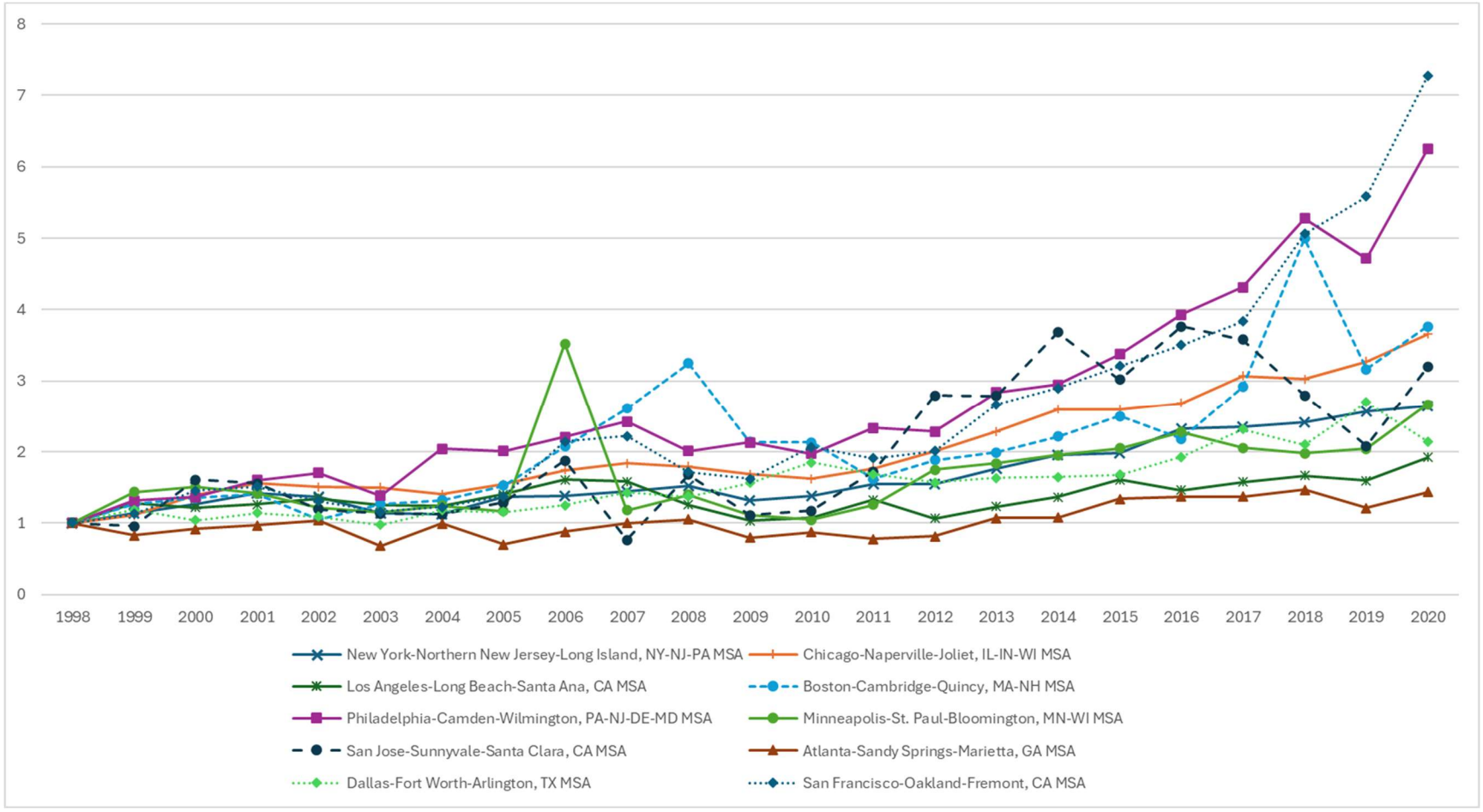
Notes: Changes in the number of firm headquarters in selected MSAs over time are shown relative to 1998.

Figure 2. Changes in the number of charitable organizations in selected MSAs over time



Notes: Changes in the number of charitable organizations in selected MSAs over time are shown relative to 1998.

Figure 3. Changes in the amount of charitable contributions in selected MSAs over time



Notes: Changes in the amount of charitable contributions (in 2020 dollars) in selected MSAs over time are shown relative to 1998.

Appendix

Table A1. Summary statistics for outcome variables

	Mean	S.D.
Number of firms in MSA	27.61	98.94
Total Market value of firms in MSA (billion $)	73.45	322.03
Unweighted public contributions (million $)	443.66	1667.87
Weighted public contributions (million $)	707.76	2404.47
Unweighted number of charities	50.45	128.81
Weighted number of charities	596.45	1379.37
Unweighted fundraising expenditures (million $)	35.03	134.13
Weighted fundraising expenditures (million $)	56.78	203.32
Unweighted government grants (million $)	224.73	918.89
Weighted government grants (million $)	439.68	1417.44
Number of high earners	47222.78	344594.2

Notes: Financial data are expressed in 2020 dollars. S.D.: standard deviation.

Table A2. The effect of the number of headquarters on charitable giving

	Unweighted public contributions			Weighted public contributions		
Local						
Number of firms in MSA	3.323**	3.587**	0.778	3.538*	3.924**	-0.092
	(1.658)	(1.570)	(1.045)	(1.833)	(1.577)	(1.214)
No. of Obs.	6646	6634	6634	6646	6634	6634
National						
Number of firms in MSA	7.521**	7.747***	7.847***	7.373**	7.649***	5.974***
	(3.447)	(2.631)	(2.183)	(3.553)	(2.521)	(1.861)
No. of Obs.	6172	6160	6160	6172	6160	6160
Arts, culture, and humanities						
Number of firms in MSA	0.145	0.137	-0.089	0.244	0.244	-0.334
	(0.124)	(0.125)	(0.294)	(0.269)	(0.282)	(0.480)
No. of Obs.	3590	3581	3581	3590	3581	3581
Education						
Number of firms in MSA	0.635	0.627	-0.975	0.288	0.297	-2.359
	(1.476)	(1.353)	(3.107)	(1.478)	(1.241)	(2.822)
No. of Obs.	5969	5957	5957	5969	5957	5957
Environment and animals						
Number of firms in MSA	0.514*	0.467**	0.162	0.535	0.440	-0.186
	(0.274)	(0.191)	(0.163)	(0.404)	(0.296)	(0.395)
No. of Obs.	2669	2665	2665	2669	2665	2665
Health						
Number of firms in MSA	1.252**	1.366***	0.168	1.663*	1.826***	-0.045
	(0.609)	(0.469)	(0.722)	(0.865)	(0.669)	(0.737)
No. of Obs.	6340	6328	6328	6340	6328	6328
Human services						
Number of firms in MSA	2.134	2.295	0.829	1.849	2.075*	0.149
	(1.418)	(1.411)	(0.813)	(1.156)	(1.076)	(1.152)
No. of Obs.	6151	6142	6142	6151	6142	6142
International and foreign affairs						
Number of firms in MSA	1.308	0.986	0.999**	1.659**	1.224*	0.532
	(0.813)	(0.622)	(0.395)	(0.702)	(0.676)	(0.741)
No. of Obs.	1134	1134	1134	1134	1134	1134
Religious						
Number of firms in MSA	-0.050	0.098	0.320***	0.025	0.159	0.956***
	(0.233)	(0.096)	(0.118)	(0.270)	(0.190)	(0.256)
No. of Obs.	2361	2358	2358	2361	2358	2358
Controls	No	Yes	Yes	No	Yes	Yes
MSA-specific linear time trends	No	No	Yes	No	No	Yes

Notes: All models include metropolitan statistical area (MSA) and year fixed effects. The set of control variables is described in the main text. Unweighted and weighted public contributions are measured in millions of 2020 dollars. The signs *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table A3. The effect of market value of firms on charitable giving

	Unweighted public contributions			Weighted public contributions		
Local						
Market value of firms in MSA	0.266*	0.186	0.146	0.290	0.147	0.114
	(0.137)	(0.129)	(0.094)	(0.196)	(0.180)	(0.091)
No. of Obs.	6646	6634	6634	6646	6634	6634
National						
Market value of firms in MSA	0.912**	0.711*	0.615*	0.995**	0.732*	0.588**
	(0.429)	(0.378)	(0.331)	(0.451)	(0.397)	(0.288)
No. of Obs.	6172	6160	6160	6172	6160	6160
Arts, culture, and humanities						
Market value of firms in MSA	0.009	-0.005	0.029*	0.012	-0.005	0.035
	(0.006)	(0.007)	(0.016)	(0.016)	(0.014)	(0.025)
No. of Obs.	3590	3581	3581	3590	3581	3581
Education						
Market value of firms in MSA	0.055	-0.020	-0.004	0.145	0.027	-0.024
	(0.144)	(0.130)	(0.154)	(0.198)	(0.177)	(0.147)
No. of Obs.	5969	5957	5957	5969	5957	5957
Environment and animals						
Market value of firms in MSA	0.033	0.009	0.016*	0.027	-0.010	-0.006
	(0.029)	(0.022)	(0.009)	(0.041)	(0.031)	(0.022)
No. of Obs.	2669	2665	2665	2669	2665	2665
Health						
Market value of firms in MSA	0.110	0.051	0.001	0.118	0.035	-0.051
	(0.067)	(0.058)	(0.050)	(0.096)	(0.082)	(0.041)
No. of Obs.	6340	6328	6328	6340	6328	6328
Human services						
Market value of firms in MSA	0.153**	0.127*	0.114**	0.154	0.085	0.108*
	(0.075)	(0.074)	(0.052)	(0.099)	(0.096)	(0.065)
No. of Obs.	6151	6142	6142	6151	6142	6142
International and foreign affairs						
Market value of firms in MSA	-0.057	-0.090	0.117	-0.009	-0.072	0.138**
	(0.046)	(0.056)	(0.078)	(0.073)	(0.087)	(0.058)
No. of Obs.	1134	1134	1134	1134	1134	1134
Religious						
Market value of firms in MSA	0.017	0.034*	0.017	0.023	0.039	0.038
	(0.013)	(0.020)	(0.011)	(0.027)	(0.029)	(0.038)
No. of Obs.	2361	2358	2358	2361	2358	2358
Controls	No	Yes	Yes	No	Yes	Yes
MSA-specific linear time trends	No	No	Yes	No	No	Yes

Notes: All models include metropolitan statistical area (MSA) and year fixed effects. The set of control variables is described in the main text. Unweighted and weighted public contributions are measured in millions of 2020 dollars. Market value of firms in MSA is measured in billions of 2020 dollars. The signs * and ** denote statistical significance at the 10% and 5% levels, respectively.

Table A4. The effect of corporate presence on charitable giving: Robustness checks

	Unweighted public contributions			Weighted public contributions		
Drop Covid period						
A. Number of firms in MSA	9.110***	10.264***	8.610**	9.169**	10.773***	5.751
	(3.503)	(2.485)	(3.633)	(4.390)	(2.968)	(3.869)
No. of Obs.	6168	6156	6156	6168	6156	6156
B. Market value of firms in MSA	1.202**	0.951**	1.200***	1.124	0.710	1.087***
	(0.508)	(0.412)	(0.379)	(0.806)	(0.660)	(0.287)
No. of Obs.	6168	6156	6156	6168	6156	6156
Drop Great Recession period						
A. Number of firms in MSA	14.450***	15.261***	13.264***	15.604***	16.726***	10.845***
	(4.631)	(3.468)	(3.582)	(5.584)	(3.935)	(4.173)
No. of Obs.	5849	5837	5837	5849	5837	5837
B. Market value of firms in MSA	1.390*	1.030	1.020*	1.605*	1.051	1.022*
	(0.713)	(0.648)	(0.612)	(0.859)	(0.786)	(0.546)
No. of Obs.	5849	5837	5837	5849	5837	5837
Controls	No	Yes	Yes	No	Yes	Yes
MSA-specific linear time trends	No	No	Yes	No	No	Yes

Notes: All models include metropolitan statistical area (MSA) and year fixed effects. The set of control variables is described in the main text. Unweighted and weighted public contributions are measured in millions of 2020 dollars. Market value of firms in MSA is measured in billions of 2020 dollars. The signs *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table A5. The effect of corporate presence on charities: IV results

	Weighted number of charities		Weighted fundraising expenditures		Weighted government grants	
	Year *t*	Year *t*+1	Year *t*	Year *t*+1	Year *t*	Year *t*+1
A. Instrument : Market value of producers of tradeable products						
Market value of firms in MSA	0.172	0.278*	-0.018	-0.020	-0.221	-0.311
	(0.129)	(0.157)	(0.037)	(0.045)	(0.237)	(0.271)
No. of Obs.	6710	6306	6710	6306	6710	6306
B. Instrument : Market value of stayers						
Market value of firms in MSA	0.245*	0.390**	-0.029	-0.034	-0.220	-0.217
	(0.134)	(0.161)	(0.038)	(0.042)	(0.246)	(0.250)
No. of Obs.	6710	6306	6710	6306	6710	6306

Notes: All models include a set of control variables as discussed in the text, metropolitan statistical area (MSA) and year fixed effects. Weighted fundraising expenditures and government grants are measured in millions of 2020 dollars. Market value of firms in MSA is measured in billions of 2020 dollars. The signs * and ** denote statistical significance at the 10% and 5% levels, respectively.