Does Transparency Improve Public Policy? Evidence from a Tax Incentive Transparency Initiative*

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Abstract

Tax incentives for business investment generate electoral benefits for incumbents, often at taxpayers' expense. We theorize that making the costs of incentives transparent will reduce policymakers' use of them. To test this theory we leverage a unique policy change—GASB 77—that required U.S. municipal governments to publicly report tax incentive spending. Using a difference-in-differences design, we estimate that GASB 77 had no effect on tax incentive spending. Why did transparency fail? Elite surveys, interviews, and heterogeneity analyses suggest that transparency is only effective in the presence of pressure groups that can use the disclosed information to hold elected officials accountable.

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Governmental transparency has become a major policy initiative in countries around the world. Even in areas that are notoriously opaque, such as trade negotiations, there is increasing pressure to open up the policy process to the public (Marx and Van der Loo, 2021). Transparency has been posited to accomplish everything from reducing corruption, to improving public policy, to increasing trust in government (Kosack and Fung, 2014). Most relevant for our work, transparency has been suggested as a means to discipline governments and limit the overuse of tax abatements.[1] Does transparency really accomplish these goals?

In this paper, we examine an exogenous change in U.S. transparency standards in a major policy area: local economic development policy. In the U.S. and in many countries around the world, governments offer individual companies financial incentives, such as tax breaks to relocate or expand operations. The most high-profile case was in 2017, when U.S. technology giant Amazon began searching for a U.S. municipality in which to locate its second headquarters (dubbed "Amazon HQ2"). The competition was intense; Amazon claimed to receive bids from 238 North American municipalities, each one a detailed document touting the municipality's suitability for a new Amazon headquarters. Cities competed to offer Amazon the largest and most attractive tax incentive package: for example, Newark, New Jersey, offered a package (endorsed by NJ governor Chris Christie) worth nearly $7 billion.[2]

Although this is an extreme example, local politicians frequently offer tax incentives in an attempt to woo other companies as well; Bartik (2017) estimates that U.S. municipalities awarded $45 billion dollars in incentives in 2015. These incentives for economic development can be part of a targeted economic development strategy. For example, Pinto and Pinto (2008) argue that partisan governments can use taxation to promote investment that benefits capital (right governments) or labor (left governments). Danzman and Slaski (2022) find that Latin American governments provide incentives to firms that help them to achieve broader goals of economic development. These incentives can be just one part of a larger economic

[1] We review this literature in Section 2.

[2] See, e.g., https://lasvegassun.com/news/2017/oct/23/amazon-says-it-received-238-proposals-for-2nd-head/

development strategy, such as green economic transitions (Allan and Nahm, 2025). Thus, the economic logic of the firm-specific incentives is that the new jobs, capital expenditure, or other goals that investing firms bring to town outweigh the cost of forgone tax revenue. However, a wealth of academic evidence suggests that such incentives do not play a major role in firms' location decisions; rather, firms look for favorable labor markets and geographic locations (Jensen and Malesky, 2018). Incentives are generally seen as an inefficient tool for economic development.

One explanation for the overuse of incentives is the lack of transparency in this policy space. Many of these economic incentive deals, including for Amazon HQ2, are shrouded in secrecy and numerous economic development programs are exempt from public records laws. Thus, the groundbreaking ceremonies and headline job creation numbers are publicized by politicians, but many of the details (including the costs) aren't transparent to the public. We take advantage of a unique and exogenous policy change—the Governmental Accounting Standards Board (GASB)'s Statement 77—to examine how an increase in cost transparency shapes incentive use. Increasing transparency can have a number of impacts on incentive use that review later in the paper. Central to much of the literature on transparency is the ability of actors such as opposition politicians, media organizations, and NGOs to use information from disclosures to criticize incentive deals. As we document in our qualitative interviews, interest groups' ability to "signal-boost" disclosed information is the main mechanisms linking transparency to lower incentive spending.

GASB is an oversight board that sets standards for state and local government finance. Enacted in 2015, GASB Statement 77 required U.S. municipalities to include information on their total tax incentive spending in their (publicly available) annual financial reports. Up to this point, most cities provided no comprehensive accounting of the amount of tax abatements offered to firms.

GASB 77 constituted a plausibly exogenous increase in the transparency of local governments' tax incentive spending; however, nontax incentives (such as grants and low-interest

financing) were not directly affected by the new policy, nor were municipalities in states that do not require their cities to adhere to these standards.[3] We use a difference-in-differences design to test whether or not GASB 77 caused cities to reduce their tax incentive spending. This allows us to examine if the enacting of this transparency standard led to fewer or less generous incentives deals.

We find that GASB 77 did not cause affected municipalities to reduce their tax incentive spending in the aggregate. We take several steps to determine why this transparency reform was seemingly ineffective. First, we collect original data from thousands of municipal annual comprehensive financial reports (ACFRs) and estimate that at least 24% of municipalities have simply failed to comply with the transparency reform. Second, to gauge the salience of the transparency reform among policymakers, we conduct original elite surveys of 651 local government officials and 322 heads of finance for municipalities. We find that not only are many government officials uncertain about whether their own municipality complies with GASB 77, but many respondents in both samples had a limited understanding of the rule itself. Third, we conduct interviews with supporters of GASB 77 regarding why the policy may have been unsuccessful. Explanations of the limited impact of GASB 77 from these elite interviews include issues of non-compliance by cities and loopholes with GASB 77. The two successful cases of cities reforming incentives due to GASB 77 disclosures are cases of local interest groups harnessing the increased transparency for policy change.

In Section 7 we explore the conditions under which transparency will affect governance, focusing on the the how transparency affects the electoral prospects of incumbent politicians. We focus on two important theoretical mechanisms identified in the literature: the competitiveness of elections and the capacity of the local media. Our final set of empirical tests looks for at this heterogeneity across municipal governments in terms of the efficacy of GASB 77

[3]GASB 77 only requires the disclosure of tax incentives. These disclosures could, in theory, be coupled with additional disclosures of nontax incentives. A project that receives tax and nontax incentives could be more easy to identify due to GASB 77 disclosure. Unfortunately, most governments do not document additional incentives in their GASB 77 disclosures and we are unaware of any news stories identifying additional incentives due to GASB 77 disclosures.

in curbing incentive spending. Drawing on newly released data from de Benedictis-Kessner et al. (2023), we find that GASB 77 was more effective in municipalities with contested mayoral elections (e.g. those in which the incumbent did not run unopposed); we also find a similar, though smaller and less precisely estimated, result for municipalities with more local newspapers. We interpret these results as suggestive evidence that in order for transparency to improve governance, it must be implemented in the presence of stakeholders (such as local media or electoral challengers) that have an incentive to hold policymakers accountable in response to the newly disclosed information. We therefore contribute to recent political economy scholarship on the limits of transparency (Grossman, Michelitch and Prato, 2024; Meehan, 2024) by identifying key local-level conditions under which sunlight may be more likely to disinfect.

Finally, we contribute to a fast-growing literature in American Political Economy on the politics of local governments. In particular, recent loci of attention for this literature have been the study of how local governments are held accountable for their choices (de Benedictis-Kessner, 2018; de Benedictis-Kessner and Warshaw, 2020; Payson, 2017) as well as how stakeholders and interest groups shape local governance (Anzia, 2022; Jensen and Malesky, 2018). We combine these two strands, arguing that transparency breeds accountability at the local level only indirectly through stakeholder groups' strategic use of disclosed information. While our focus in this paper is limited to economic development policy, this insight could easily be applied to other important sub-national policy issues such as education, housing, and infrastructure.

1 Government Use of Tax Incentives

Governments around the world use different forms of firm-specific incentives to facilitate economic development. Although these incentives include tax abatements, cash grants, fee waivers, and dedicated infrastructure for companies, a study by Danzman et al. (2016) finds

that the vast majority of economic development incentives are provided through tax incentives. By 1999, 95 percent of U.S. cities were using firm-specific incentives for development Jensen and Malesky (2018). The total value of incentives in the United States has been estimated between 45-90 billion dollars per year, although the lack of transparency of both programs and individual deals makes this value difficult to estimate (Parilla and Liu, 2018). An added complexity is that the very definition of incentives, and how to value them, is open to interpretation. For our purposes we focus on tax abatements and grants targeted to individual companies, but note that there are other potential types of incentives offered to firms.

Despite incentives being one of the primary tools used by government officials, there is limited evidence that incentives are an effective economic development strategy. Slattery and Zidar (2020) review the literature as well as original analysis of "close deals," where cities attracting companies through incentives see employment increases, but find no evidence of broader economic benefits for spillovers from these subsidized firms. This is consistent with previous work that find incentives suffer from poor targeting, where the majority of incentives are allocated to companies that would have invested absent these incentives. There is a general consensus that economic development incentives practice needs reform.

Jensen and Malesky (2018) argue that, while corporate tax breaks are not efficient tools for attracting investment, they are tools that local politicians can use to attach their name to local investment projects. Jensen and Malesky argue that, even if they fail to bring new firms to town, local officials can use incentives to deflect blame for a lack of investment. These same government officials minimize the oversight of these programs, often not even requiring a simple cost-benefit analysis for offering taxpayer support. Corporate tax breaks may be bad economics, but they are good politics.

Central to the political economy of economic development incentives is the lack of transparency around these programs and deals. Some high-profile programs such as Georgia's film incentives provide no details on the companies receiving incentives. Numerous states

maintain exceptions to economic development activities, allowing broad exceptions to the release of information on economic deals (Jensen and Thrall, 2021). As best summarized by watchdog group Good Jobs First, "Politicians only want to brag about the benefits of subsidy deals, while obscuring the true costs."[4]

In the next section we further discuss the political economy of transparency and specifically discuss the potential implications of increasing transparency of local economic development programs, linking this policy tool with the broader literature on the fiscal illusion. In this paper, we address a specific type of transparency, the costs of abatements through lost revenues and how this cost transparency can restrain incentive use. We view our theory and analysis as an important contribution to this fiscal illusion literature.

2 Transparency and Local Economic Development

It is often noted that transparency is necessary for democratic governance; without transparency, voters cannot accurately determine what their elected officials are doing and thus cannot hold them accountable for their actions (Adsera, Boix and Payne, 2003). However, while cross-national evidence suggests that democracies are indeed more transparent than nondemocracies (Hollyer, Rosendorff and Vreeland, 2011), there is substantial variation in transparency between (and even within) democratic governments.

The leading explanation for variation in transparency across and within democracies centers on electoral competition. The logic is that competitive elections foster uncertainty about whether or not the incumbent party will remain in power during the next cycle; knowing they may be removed from office, incumbent politicians in competitive democracies will pass transparency regulations in order to constrain future opposition parties. States with greater electoral competition have been found to have higher levels of budgetary disclosure (Wehner and de Renzio, 2013) and are more likely to implement freedom of information laws (Berliner, 2014).

[4]https://goodjobsfirst.org/tax-abatement-disclosures/

Why might transparency constrain policymakers? We argue that the case of tax incentives for local economic development provides an instructive example: they offer substantial electoral benefits for the leaders that offer them (Jensen and Malesky, 2018), precisely because non-transparency allows elected officials to publicize incentives' economic benefits while hiding their true cost.

2.1 Tax Incentives and the "Fiscal Illusion"

Germane to this paper's topic is the literature on the effects of fiscal transparency: what happens when citizens are better informed about how the government is spending their tax money? An influential public choice literature on the "fiscal illusion" helps explain the overuse of some types of policies due to non-transparent costs (Wagner, 1976). This work focuses on the inability of voters to understand the full costs of providing public goods, and thus leading to an oversupply of this public good.

Numerous theoretical mechanisms explaining the public's inability to price public goods have been identified, but one theory is particularly relevant to the study of economic development incentives. This theory focuses on the role of debt and how debt can lead to an increase in government spending (Dollery and Worthington, 1996). Voters are more aware of the costs to taxation-based spending than other types of spending, funded by taxpayers, and thus politicians are able to increase debt-financed spending more easily than taxation based spending. Ironically, this can lead to more use of tax incentives, as opposed to grants funded by tax revenues. Governments find it easier to forgo revenues, leading to more debt or cuts to other spending (Bartik, 2019). Central to this literature is the ability of governments to hide the costs of economic activities by using less visible fiscal tools.

This point, while seemingly obvious, has implications for the level of government and the form of government spending. Governments may privilege the use of tax incentives relative to other expenditures (Burman and Phaup, 2012; Surrey and McDaniel, 1985). Governments that can forgive future taxes, as opposed to budgeting for grants, can more easily hide the

true costs of these policies.

This literature's focus on tax expenditures is particularly relevant for the study of state and local economic development incentives. As summarized by Danzman et al. (2016)'s study of manufacturing incentives, "The vast majority of these programs - 147 - provide tax incentives to qualifying firms even though many evaluations of tax incentive programs find little evidence they are effective." 64 percent of programs provided tax incentives and another 21 percent helped with the financing of investments. Only 8 percent of programs were grants to companies. Tax incentives dominate these economic development programs.

The reliance on tax incentives has been a criticism of scholars and NGOs (Bartik, 2019). A blog for the Lincoln Institute for Land of Land Policy, summarizes the position of many activist NGOs, "While many public officials offer business tax incentives for commendable reasons, critics claim these deals can conjure a brief illusion of prosperity but fail to offset the toll taken on fiscal health, both short- and long-term."[5]

This lack of cost transparency of these programs is often the feature of the program design, and not the lack of public awareness of incentives. In Texas's largest tax incentive program, called Chapter 313, tax incentives are allocated to firms, mostly in the energy sector, but these programs are uncapped. In the Comptroller Fiscal Note on this new tax incentive legislation, the estimate for the costs of this program are "significant" but "can not be determined at this time."[6] At the Federal level, tax credits associated with the Inflation Reduction Act have been criticized for ballooning in total costs. The total costs of these programs depend on the amount of qualifying investment, and it is unclear when and if these full costs will be apparent to taxpayers.[7]

[5]See Wagaman, Andrew, "GASB 77: Revealing the Cost of Property Tax Incentives for Business," *Lincoln Institute of Land Policy*, July 2017.

[6]See https://capitol.texas.gov/tlodocs/88R/fiscalnotes/pdf/HB00005F.pdf.

[7]See "The Real Cost of the Inflation Reduction Act Subsidies: $1.2 Trillion," *The Wall Street Journal* Editorial Board, 24 March 2023.

2.2 Transparency: Shattering the Illusion?

How would an increase in transparency of economic development incentive shape government use of incentives? First, greater fiscal transparency is associated with more balanced budgets (Benito and Bastida, 2009) and lower levels of debt (Alt and Lassen, 2006). Second, Alt and Lassen (2006) find that fiscally transparent democracies experience less pronounced electoral cycles in government spending than nontransparent democracies. This result suggests that transparency, by way of increasing voters' information about government spending activity, limits the extent to which politicians can spend taxpayer money in ways that are economically suboptimal but electorally efficient. Electoral cycles—the ramping up of public spending in the year preceding an election—bring electoral returns to incumbent politicians because they temporarily boost the economy just before voters decide whether to vote the proverbial bums out. However, Healy and Lenz (2012) argue that most voters actually want to evaluate politicians' aggregate economic performance, but they simply lack the information necessary to do so and thus rely on the current/recent state of the economy as a proxy. They find that experimentally increasing voters' information about incumbents' aggregate performance substantially reduces the recency bias.

These findings suggest that government transparency should reduce government spending, as voters will be able to hold incumbents accountable for profligate use of their tax dollars. This suggests that an increase in transparency of tax incentive for economic development would lead to a reduction in the use of incentives.

The importance of financial transparency for economic development policy reform was central to supporters of GASB 77. Numerous NGOs submitted letters in support of the GASB 77 rule, and in many cases asked GASB to go farther in mandating more details in disclosures. A coalition of New York NGOs submitted comments to GASB in support of GASB 77 noting that "we are supportive of the proposed standard and believe it will have huge and positive ramifications on the ability to assess New York's fiscal conditions."[8]

[8] See https://www.gasb.org/document/blob?fileName=TAD_ED_CL120.pdf.

Organizations in Nevada and New Mexico jointly submitted comments on GASB 77, noting that these disclosures are useful for their own organizations.

Not only does GASB 77 allow for the disclosure of the costs of incentives, it provides details on the distribution of costs. As noted by Policy Matters Ohio,[9] GASB 77 provides details on incentives given at one level of government affecting other levels of government.

In practical terms, numerous letters to GASB in support of GASB 77 note that economic development incentives such as tax breaks can have major implications on school finance. As noted by the Chicago's Teacher Union in their statement of support for GASB 77, "Tax abatements drain vitally important revenues from public schools, and their true cost of their use, primarily to well-to-do private citizens and corporations, should be included in any government financial statements."[10] These implication for schools have led to some of the biggest post-GASB 77 stories. Exposes have linked GASB 77 data to decreased school funding cities including Cincinnati, Cleveland, New York, and Philadephia.[11].

Academic research and activists suggest greater financial transparency should lead to less use of tax incentives. However, one area of research finds that fiscal transparency can, in some circumstances, lead to greater spending by encouraging greater government effort. For example, Ferejohn (1999) links increased transparency to higher taxes and transfers. This is also consistent with work finding that transparency can increase trust in government and lead to higher levels of government spending (Alt, Lassen and Skilling, 2002; Alt and Lowry, 2010).

We addresses this point in the conclusion, but we note that few pro-incentive interest groups, such as economic developers, were encouraging a vast increase in financial transparency. The most vocal opposition to GASB 77 were economic developments and state economic development agencies. As documented by Jensen and Malesky (2018), economic development agencies opposed this rule, often for the high costs of compliance as well as the

[9]See https://www.gasb.org/document/blob?fileName=TAD_ED_CL170.pdf
[10]See https://www.gasb.org/document/blob?fileName=TAD_ED_CL168.pdf
[11]For a list of GASB 77 studies see https://goodjobsfirst.org/tax-abatement-disclosures/

mandating of disclosing the costs, but not the benefits of these incentives in annual reports. Few economic development agencies supported GASB 77 reforms.

Theoretically and empirically, fiscal transparency can have different effects on government spending. We believe that examining local economic development transparency provides some answers to these broader questions about the implications for transparency. Our study focuses on economic development tax incentives.

Tax incentives are similar to electoral budget cycles in the sense that they allow incumbent politicians to use taxpayer funds to maximize their odds of reelection, rather than to maximize aggregate welfare. Other economic development tools may be more effective for governments, but limited information about the costs of incentives can make them an effective political strategy (Patrick, 2016). Politicians can often use message control to extol the benefits of their economic development efforts while minimizing information on the costs (Jensen and Malesky, 2018).

We argue that existing practices allow governments to selectively provide information on incentive use. Politicians already use incentive announcements to pander to the public (Jensen and Malesky, 2018) and selectively reveal information about the costs as well as the benefits of incentives (Jensen and Thrall, 2021). What is missing in the current transparency regime is a full and systematic accounting for the costs of incentives.

GASB 77 was an exogenous shock to local transparency, requiring a very specific type of disclosure by governments. We believe that this transparency doesn't affect the government's ability to pander, and doesn't necessarily even signal major changes in a city's financial health. The main benefit this transparency provides is detailed information on why government revenues are lower than one might otherwise think, and to show systematically how economic development efforts lead to annual reductions in revenues. Thus, by only revealing additional information on the costs of incentives, we hypothesize that this disclosure can shape the provision of incentives.

This type of transparency has been linked with reductions in government spending, where

the public is provided additional information about the costs of a policy (tax abatements) but no additional information on the benefits of these programs. Fan (2020) finds that GASB rules can discipline government spending and Li et al. (2023) finds that these rules, specifically GASB 77, can lead to lower government borrowing costs. But transparency can increase borrowing costs if they reveal the overuse of incentives (Gao, Lee and Murphy, 2020).

Formally, this paper's sole hypothesis can be stated as follows:

H1: All else equal, an increase in the transparency of tax incentive spending should result in a decrease in the amount of incentive spending.

In Section 7 we expand our theoretical and empirical examining of the impact of transparency on economic development policy. In this section we stress the importance of electoral competition and the role of the media in making the overuse of economic development incentives a political liability for elected officials.

3 Research Setting: GASB 77

In 2015, U.S. state and local governments experienced a sudden increase in transparency requirements for their tax incentive spending. That increase was the result of GASB Statement 77, an accounting rule change that required state and local governments to report their incentive spending in a standardized format on their annual financial reports. This rule change provides an ideal setting in which to test the above hypothesis about transparency and tax incentive spending.

In the years following the Great Depression, the U.S. government took several steps to standardize and regulate accounting practices for companies, school districts, and local governments. One of the most important pieces of legislation related to this mission was the Securities Exchange Act of 1934, which created the Securities and Exchange Commission (SEC), the federal agency tasked with regulating the financial reporting practices of public

and private entities (Strother, 1975). Shortly after its creation, the SEC adopted a common set of standards for financial reporting called the Generally Accepted Accounting Principles (GAAP) and required that companies and local governments comply to them. The GAAP includes both broad, general commitments (e.g., the commitment that financial results be presented honestly) as well as more specific rules (e.g., unrealized income cannot be reported as revenue).

In 1984, a number of groups including the National League of Cities and the National Conference of State Legislatures came together to create the Governmental Accounting Standards Board (GASB).[12] GASB is a private organization tasked with setting financial reporting standards for GAAP-compliant local and state governments; it sets standards "through a transparent and inclusive process intended to promote financial reporting that provides useful information to taxpayers, public officials, investors, and others who use financial reports."[13]

Since its creation, GASB has issued 94 rule changes, called "Statements," that affect the manner in which state and local governments must prepare their annual financial reports and/or the information that governments must include in the reports. The focus of this paper is GASB Statement 77 (hereafter GASB 77), issued in August 2015, which required for the first time that local and state governments must disclose their tax incentive spending in their annual reports. Specifically, GASB 77 requires governments to report three things:[14]

1. The dollar amount (gross) of taxes abated during the reporting period.

2. "Brief descriptive information" about the incentives, such as the specific tax being abated, eligibility requirements for recipients of the abatement, and any provisions that may be in place to reclaim or terminate the incentive in certain situations.

3. Other nontax commitments made by a government as part of a tax incentive deal.

[12] https://www.fasb.org/jsp/FASB/Page/TimelinePage&cid=1175805309640
[13] See https://www.gasb.org/jsp/GASB/Page/GASBSectionPage&cid=1176168081485
[14] The full text of GASB 77 can be found here.

GASB 77 markedly increased the transparency of the affected governments' incentive spending by requiring governments to report their total annual spending in a standardized, public format. Prior to GASB 77, information on a local government's total incentive spending would need to either be pieced together from different news articles/press releases (time intensive), calculated using proprietary incentive data (cost intensive), or accessed via Freedom of Information Act (FOIA) request (time and cost intensive). In many cases, these deals were exempt from FOIA requests and the costs were never reported.

States varied in their guidance provided to local entities on their GASB 77 obligations. For example, as early as 2017 the New York Comptroller provided detailed guidance on local tax abatement disclosures.[15] Our interviews suggest that that some states provided limited guidance to local entities, potentially shaping their levels of GASP compliance. As we show in the empirical analysis section, there are dramatically different patterns of compliance across states, suggesting a role of state guidance and enforcement shaping GASB 77 disclosures.

4 Research Design:

4.1 Identification Strategy

We test the effect of GASB 77 on local governments' incentive spending using a difference-in-differences design. To do so, we take advantage of the fact that GASB 77 only required local governments to report incentives that abate tax revenue; other types of incentive spending, such as grants or low-interest loans, were unaffected. We can therefore learn about the effect of increased fiscal transparency on tax incentive spending by comparing local governments' tax incentive spending to their nontax incentive spending, pre- and post-GASB 77. Under the assumption that both types of incentives are typically deployed in pursuit of the same economic development goals—indeed, many firms receive both tax and nontax incentives—any change in municipalities' use of tax vs. nontax incentives after the policy

[15] https://www.osc.ny.gov/files/local-government/publications/pdf/tax-abatements.pdf

change should be attributable to the increased transparency of the cost of tax incentives.

One potential concern about this approach is that governments may ramp up their nontax incentive spending in response to GASB 77, meaning that the treatment really affected both types of incentive spending and rendering the comparison invalid. However, this is unlikely for two reasons. First, governments are typically more constrained in their ability to use nontax incentives such as grants or low-interest financing, as they require large upfront costs. Second, many nontax incentives, such as grants, are outlays that municipal governments would already have been required to include in their public financial reports; governments cannot avoid publicizing their spending by substituting nontax incentives for tax-based ones.

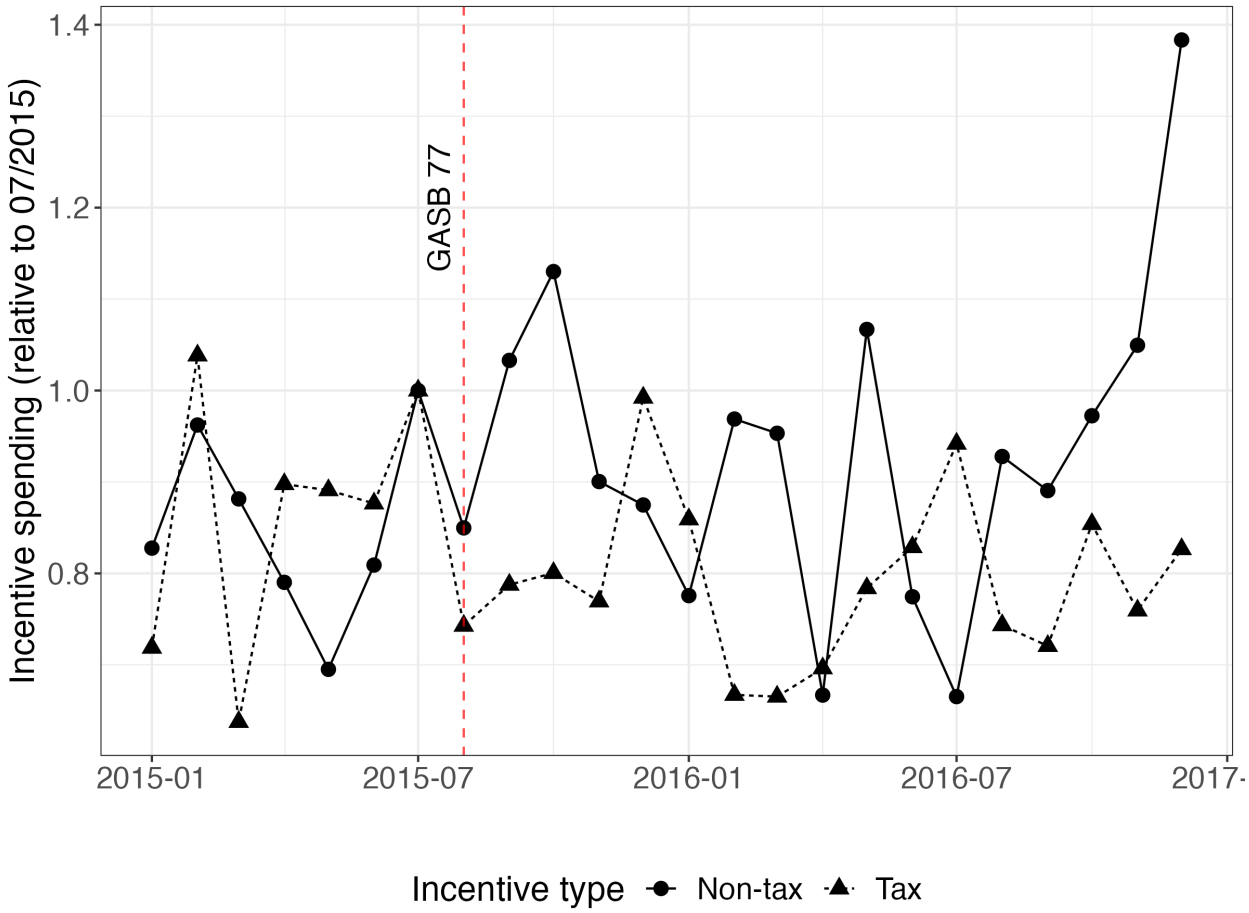


Figure 1: **Tax vs. Nontax Incentive Spending, pre- and post-GASB 77**

Figure 1 displays the total monthly level of spending on tax incentives and nontax in-

centives across reporting cities, expressed as a proportion of their immediate pre-treatment level in July 2015; the dashed vertical line indicates the issuance of GASB 77. First, note that pre-GASB 77 trends in in tax vs. nontax incentive spending seem to be largely parallel. Further, while nontax incentives experienced a slight increase post-treatment, it is clear that governments have not simply transferred their tax incentive spending into nontax formats.

The baseline difference-in-differences model is specified as follows:

$$ln(Incentive)_{ist} = \lambda_t + \gamma_s + \delta D_{st} + \epsilon_{ist} \tag{1}$$

Time (year-months) is indexed by t, treatment group (tax vs. nontax incentives, or GAAP mandated vs. non-GAAP mandated) is indexed by s, and municipality is indexed by i. Fixed effects are included at the city and year-month levels, though we also estimate models that include year and month fixed effects separately as well as a more demanding specification that includes city-incentive type fixed effects. Additionally, both to test the plausibility of the parallel trends assumption as well as to detect temporal variation in treatment effects, we estimate an event study difference-in-differences design as well:

$$ln(Incentive)_{ist} = \lambda_t + \gamma_s + \sum_{\tau=-7}^{-2} \delta_\tau D_{st} + \sum_{\phi=0}^{40} \delta_\phi D_{st} + \epsilon_{ist} \tag{2}$$

As is standard in event study difference-in-differences designs, we estimate the difference-in-differences parameter in several pre- and post-treatment time periods (omitting the first pre-treatment lag to serve as the baseline).

4.2 Incentive Data

Data on incentives come from the IncentiveFlow database, developed by Wavteq (a spinoff of Financial Times). The IncentiveFlow database attempts to collect a comprehensive set of project-level incentive deals, alongside detailed information on the deals (amount, tax vs. nontax, jobs/capital expenditure promised by the recipient, et cetera), from a variety of

sources (local media, industry periodicals, economic development magazines, etc). Usefully, the database also reports the date (month and year) that the project was announced and the municipality that granted the incentive. While the IncentiveFlow data likely does not include the entire universe of U.S. incentive deals, it is the highest-quality source of data on U.S. incentives that is not reliant on voluntary reporting by local governments themselves. This dataset includes very small incentive deals as well as large ones, and there is little evidence that it is biased towards larger deals or specific locations (Jensen and Malesky, 2018).

This consistent data collection is ideal for our difference-in-differences strategy, allowing us to compare incentives use pre- and post- GASB 77. In the conclusion we discuss possible limitations of this data and its implications for this project. We have access to IncentiveFlow data for the calendar years 2015 through 2018.

The key dependent variable is logged total incentive spending, measured at the municipality-year-month-incentive type level. This is a relatively straightforward measure of cities' spending on new incentive agreements, rather than existing agreements that may not be under the control of the current administration. In auxiliary analyses, we also consider the possibility that GASB 77 encouraged municipal governments to be more discerning with the projects for which they provide tax incentives; for example, increased transparency may lead municipalities to secure promises of greater capital investment or job creation in return for incentives, knowing that they will need to justify their spending to the public. The sample is restricted to U.S. municipalities with populations of at least 50,000, of which there are 757.

5 Results

Table 1 displays the results of the model comparing municipalities' tax and nontax economic development incentive spending before and after GASB 77, with robust standard errors

Table 1: **GASB 77 did not decrease tax incentive spending relative to nontax incentive spending**.

	DV: logged incentive spending					
	(1)	(2)	(3)	(4)	(5)	(6)
Tax incentive × GASB 77	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Num.Obs.	72576	72576	72576	72576	72576	72576
R2	0.121	0.121	0.121	0.121	0.206	0.206
S.E. cluster level	city	city	state	state	city	state
Year-month FE	Y	N	Y	N	Y	Y
City-incentive type FE	N	N	N	N	Y	Y
City FE	Y	Y	Y	Y	N	N
Year FE	N	Y	N	Y	N	N
Month FE	N	Y	N	Y	N	N

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

clustered on the municipality and year-month.[16] As a reminder, we predict that GASB 77 will lead municipalities to reduce their incentive spending, and therefore we expect a negative treatment effect. We find little evidence in support of this expectation. Across several different combinations of fixed effects and standard error clustering strategies, we estimate a coefficient suggesting a decline in tax incentive spending of 0.5 percentage points relative to nontax incentive spending after GASB 77; however, this effect is imprecisely estimated and not statistically significant in any specification. Further, while we cannot rule out the possibility that the effect of GASB 77 on tax incentive spending was zero, we can rule out effect sizes larger than 1.3 percentage points.

Figure 2 presents the event study difference-in-differences results alongside robust standard errors clustered on the city. First, looking at the pre-treatment periods, it does not appear that there are any detectable pre-trends that would invoke suspicion regarding our identification strategy. Second, while post-treatment coefficients vary in sign and magnitude, they are largely clustered around zero and are almost uniformly null: only 1 of 40 coefficient

[16] We follow modern practice in economics and political science by reporting only the δ coefficient; however, all models include constituent terms as well.

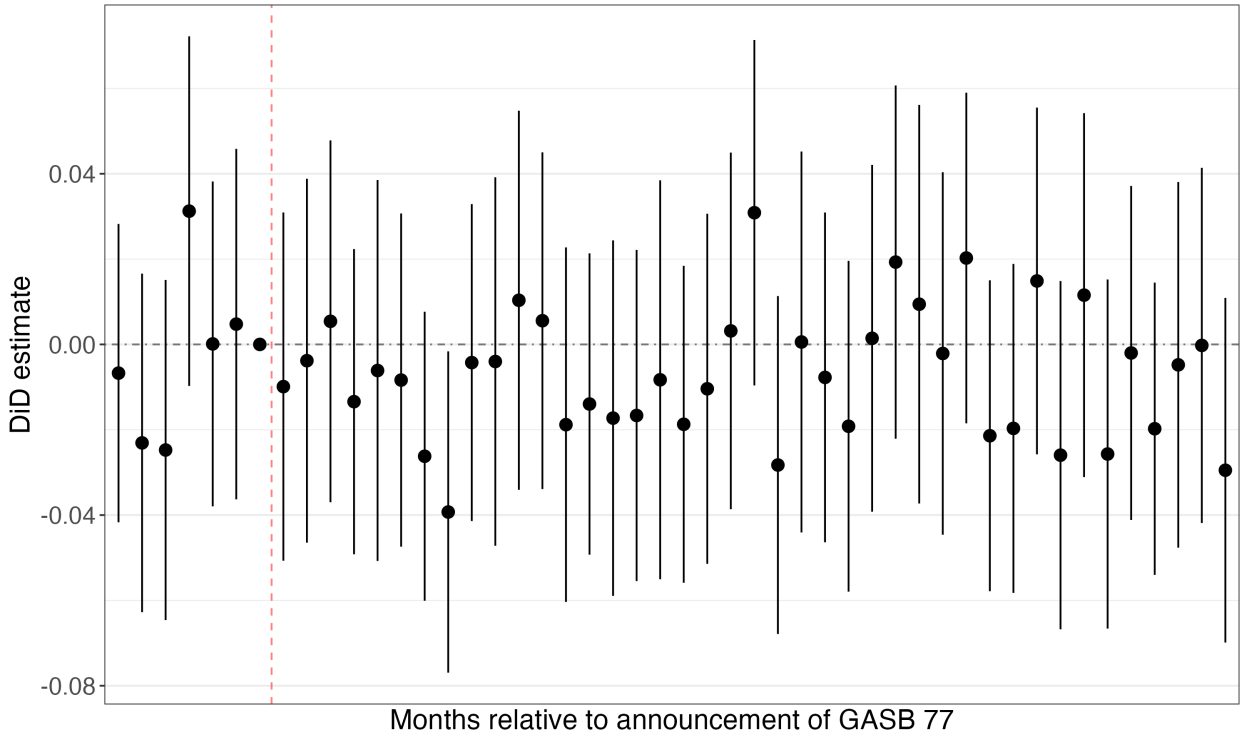


Figure 2: **GASB 77 did not decrease tax incentive spending relative to nontax incentive spending**.

Table 2: **GASB 77 did not prompt municipal governments to make "better" incentive deals.**

DV:	Log Jobs		Log CapEx		Prop. New	
	(1)	(2)	(3)	(4)	(5)	(6)
Tax incentive × GASB 77	-0.024+	-0.024+	-0.009	-0.009	0.035	0.028
	(0.013)	(0.013)	(0.007)	(0.007)	(0.033)	(0.034)
Num.Obs.	72576	72576	72576	72576	3539	3539
R2	0.143	0.142	0.098	0.098	0.347	0.338
Year-month FE	Y	N	Y	N	Y	N
City FE	Y	Y	Y	Y	Y	Y
Month FE	N	Y	N	Y	N	Y
Year FE	N	Y	N	Y	N	Y

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

estimates is statistically significant, solidly within the range of what we would expect to see if the true effect size was zero.

We therefore find no evidence that GASB 77 reduced municipal governments' spending on tax incentives. However, it is possible that—upon learning that incentive spending will be made visible to the public—local officials began awarding incentives to projects that offered greater economic returns following the implementation of GASB 77. If the rule change pushed governments to use incentives more judiciously, knowing that their incentive spending must now be justified to taxpayers, transparency's disciplining effect may come through increased *return* on tax incentive spending rather than decreased spending in nominal terms.

To test this possibility, we make use of three other incentive deal-level variables in the IncentiveFlow data. First, we look at the number of *jobs* created by each project that received incentives. Second, we look at the capital expenditure committed by the firm receiving the incentives. Third, we look at whether the incentive was given to a *new* project or an existing one. We assume that, from the perspective of taxpayers, favorable incentives are those that (i) create more local jobs, (ii) lead to greater local capital investment, and (iii) attract new projects rather than subsidize existing ones. To test each one, we create three new outcome variables at the municipality-year-month-incentive type level: total (logged) jobs associated with incentive deals, total (logged) capital expenditure associated with incentive deals, and the proportion of incentive deals that were given to new (vs. existing) projects.

We then estimate the model given in Equation 1 for each of the three outcome variables separately. Table 2 presents the results alongside standard errors clustered on the municipality.[17] We find no evidence to suggest that GASB 77 prompted local officials to target tax incentives towards projects with higher economic returns. After GASB 77, cities do not give tax incentives to projects associated with greater capital expenditures; they also do not give tax incentives to new vs. existing projects at higher rates. In fact, it is possible that tax incentive spending was associated with *less* job creation after GASB 77, though this effect

[17]The sample size is much smaller for Models (5) and (6); this is because, unlike for jobs and capital expenditure, we cannot safely give municipalities that did *not* offer any incentives in a given year-month values of zero for the "Proportion New Projects" variable. This is because zero is a meaningful value: it indicates that none of the projects to which a municipality offered incentives in a given month were new. However, results are substantively unchanged if NA values are replaced with zeros.

is imprecisely estimated.

Thus, both in aggregate and event study specifications, we fail to identify a significant effect of GASB 77 on municipalities' tax incentive spending. We also find no indication that increased transparency motivated policymakers to offer incentives to "better" projects, e.g. those that offered greater economic returns. Despite the hopes of transparency advocates and economic development reformers, we find no evidence that this major transparency initiative affected economic development policy making. In the following section, we discuss potential explanations for these non-findings and avenues for future research.

6 Why Didn't GASB 77 Change Incentive Spending?

We investigate two related potential explanations for why municipal governments didn't adjust their tax incentive spending in response to GASB 77. First, it is possible that the problem is one of compliance; cities could simply be failing to report their incentives (non-compliance) or reporting strategically/selectively, meaning that the policy change failed to increase transparency in the first place. Second, our original survey of hundreds of policymakers (local elected officials and finance officers) showed that most officials were unfamiliar or only passingly familiar with GASB 77. It is possible that the policy change was so minimally salient that elected officials were unaware that their accountants had implemented it, preventing them from changing incentive spending in response. In this section, we evaluate these possibilities using observational data, large-N elite surveys of policymakers, as well as in-depth elite interviews with policy analysts.

6.1 Delayed Compliance and Noncompliance

To investigate (non)compliance with GASB 77, we examined the documents in which municipalities are required to report on their tax incentive spending: the annual comprehensive financial report (ACFR), which contains accounting information from the previous

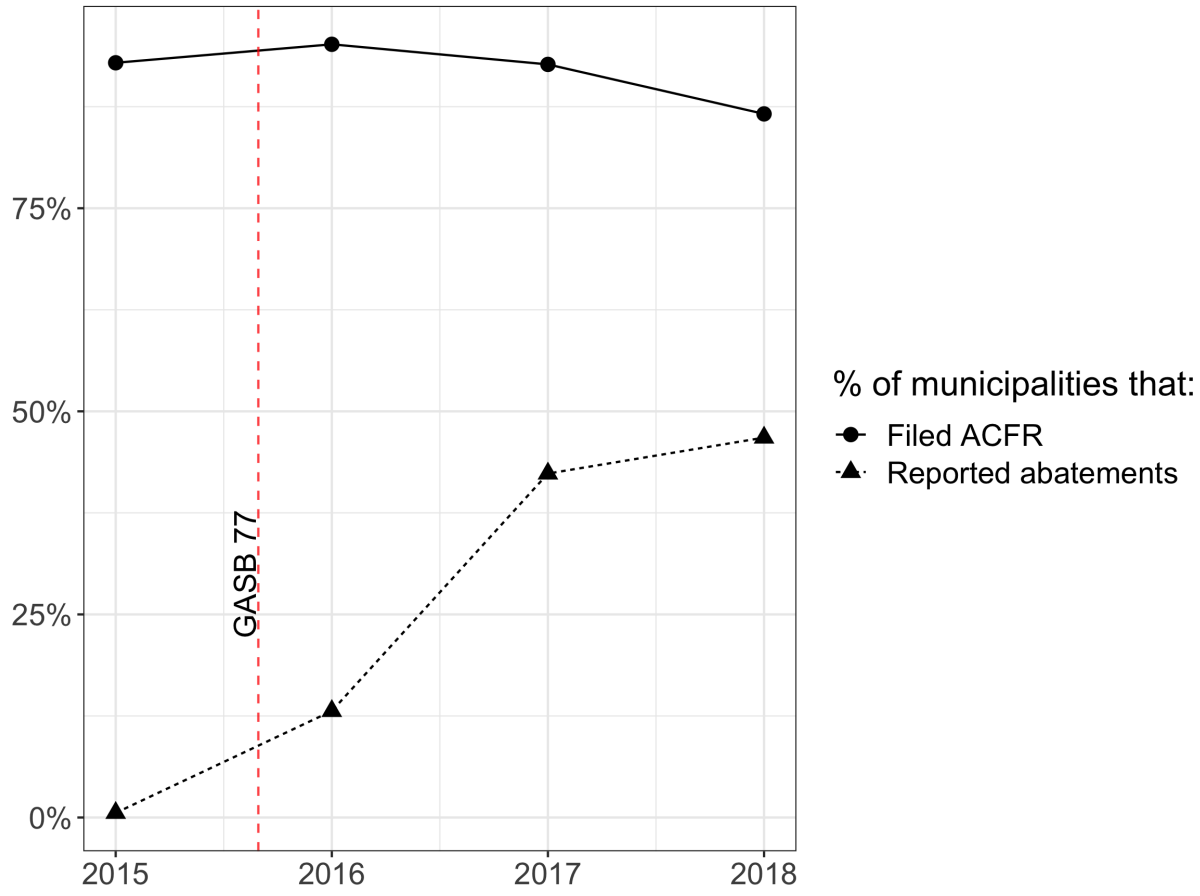


Figure 3: **Most states did not report their tax incentives until the 2017 fiscal year.**

fiscal year.[18] We collected ACFRs from the years 2015-2018 for the 757 U.S. municipalities with populations greater than 50,000, primarily by searching the cities' websites. We then searched the ACFRs to determine whether municipalities were reporting on their tax incentives as required by GASB 77.

Figure 3 plots the percentage of municipalities that filed ACFRs and reported on their tax incentives in each year. First, note that the policy change certainly increased transparency: almost half of all municipalities reported their tax incentives publicly by 2018, while virtually none had done so as of 2015. Second, note that the vast majority of municipalities did not update their incentive reporting until the release of their 2017 ACFR. This is not

[18]For municipal governments, the fiscal year is rarely the same as the calendar year. So, for example, a 2015 ACFR might report on the period of August 01, 2014 through July 30, 2015.

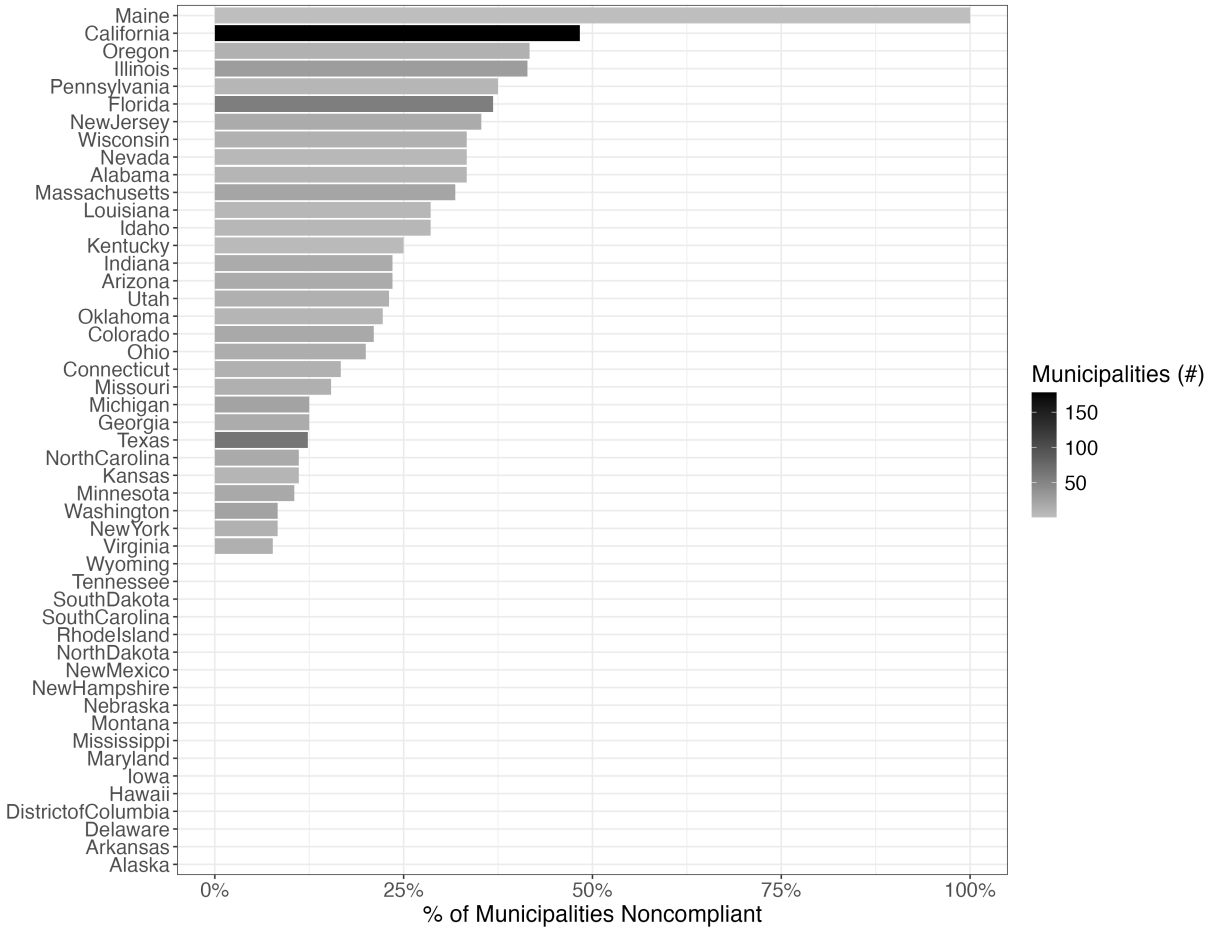


Figure 4: **Variation in GASB 77 noncompliance across states, 2017.**

indicative of noncompliance; governments were required to begin reporting in accordance with GASB 77 in fiscal years that began after December 15, 2015, which for almost all municipalities would have been the 2017 fiscal year. It does raise the possibility that—despite the fact that incentive deals that were made in 2016 would need to be reported on the 2017 ACFR—municipal governments did not change their behavior until they first began actually complying with the new rule. However, the results presented in Figure 2 include both 2017 and 2018 and do not appear to show a negative trend over time.[19]

It is difficult to precisely estimate the extent of municipal noncompliance with GASB

[19]In theory, we could conduct analyses to determine whether municipalities reduce tax incentive spending once they begin reporting incentives in their ACFRs, essentially constructing a municipality-specific transparency treatment. However, the barrier to inference with this design is that municipalities must have *awarded* tax incentives in order to *report* them; reverse causality therefore makes this design untenable.

77. This is largely because the IncentiveFlow data does not capture every single tax abatement that cities would be required to report. We therefore cannot determine whether a city that does not appear in the IncentiveFlow data and did not report tax incentives is compliant (they had nothing to report) or noncompliant (they gave tax incentives that we could not observe). However, we can calculate lower-bound noncompliance estimates by labeling municipalities noncompliant if they both:

1. Awarded tax incentive deals in the years 2015-2017 (2015-2018), as contained in the IncentiveFlow dataset;

2. Did not report any incentives on their 2017 (2018) ACFRs.

This exercise produces an estimated noncompliance rate of 25.2% in 2017 and 24.8% in 2018. As Figure 4 shows, there is substantial state-level heterogeneity, and Californian municipalities (which comprise nearly a quarter of the sample) are particularly noncompliant.

Strategic noncompliance—e.g., selection into non-reporting by municipalities who would stand to face the largest public opinion backlash if they were to report their incentive spending—could explain why we fail to see a consistent effect of GASB 77 of tax incentive spending. To test for this possibility, we reproduce the main analyses in Table 1 separately for municipalities that (i) were *ever* found to be noncompliant with GASB 77; (ii) were *never* found to be noncompliant with GASB 77. We also conduct a triple-differences analysis to compare the effect sizes for compliers vs. noncompliers. The results, reported in Appendix Table A.1, provide no evidence that (non)compliance mediated GASB 77's effect on tax incentive spending.

6.2 Low Salience Among Policymakers

While we estimate that (at least) ∼25% of the municipalities in our sample failed to comply with GASB 77 by reporting their tax incentives, noncompliance alone does not seem to explain the noneffect of the transparency reform on incentive spending. Another

plausible alternative explanation is that even in cases where cities are complying with GASB 77, elected officials are either unaware of GASB 77 or GASB 77 has no real impact on their offering of incentives.

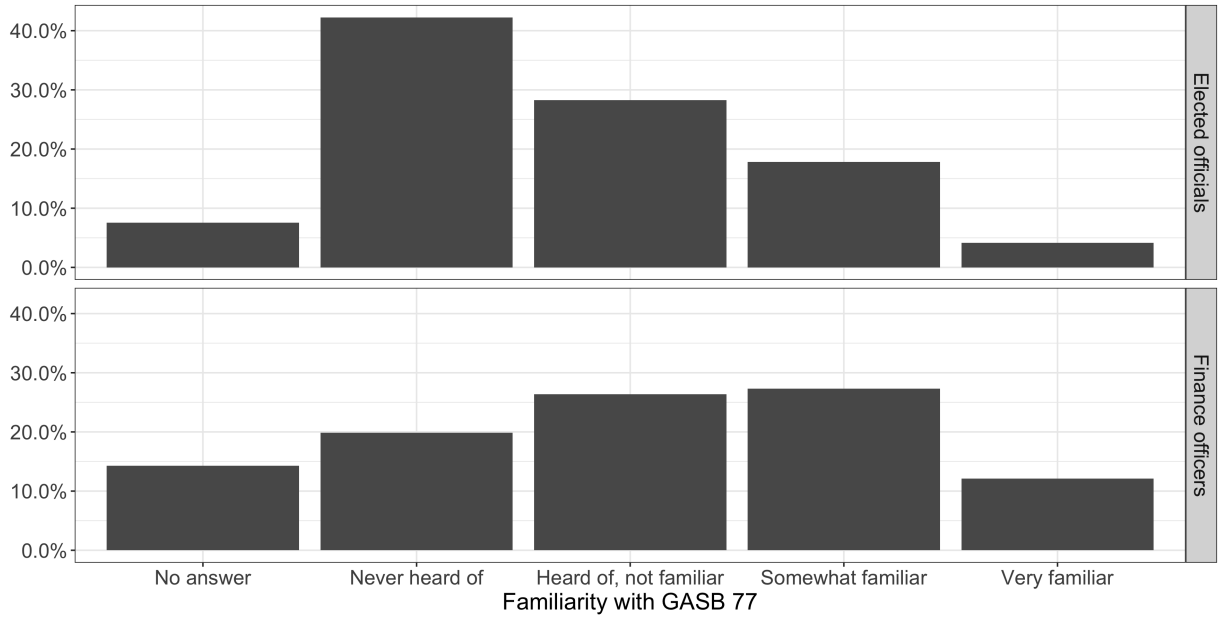


Figure 5: **Local Finance Officers and Elected Officials have limited knowledge of GASB 77.**

To address the perceptions of elected officials, we fielded two surveys of local government officials in Fall 2021 through CivicPulse. One survey was administered to local policy makers in U.S. municipal governments with populations exceeding 1,000 residents. The second was administered to heads of finance from U.S. local governments with a population exceeding 1,000 residents. Both surveys were administered online and yielded 651 and 322 responses respectively. Our intention in fielding these surveys was not to test a causal theory, but rather to provide descriptive insights into government officials' perceptions.

Our main questions in both surveys asked respondents about familiarity of GASB 77 as well as their compliance with the rule. We present the histogram of the responses in Figure 5 of policy makers (top panel) and finance officers (bottom panel). The results were striking from both surveys. Only 12 percent and 4 percent of respondents claimed to be very familiar with GASB 77, and a large number of respondents hadn't heard of this requirement.

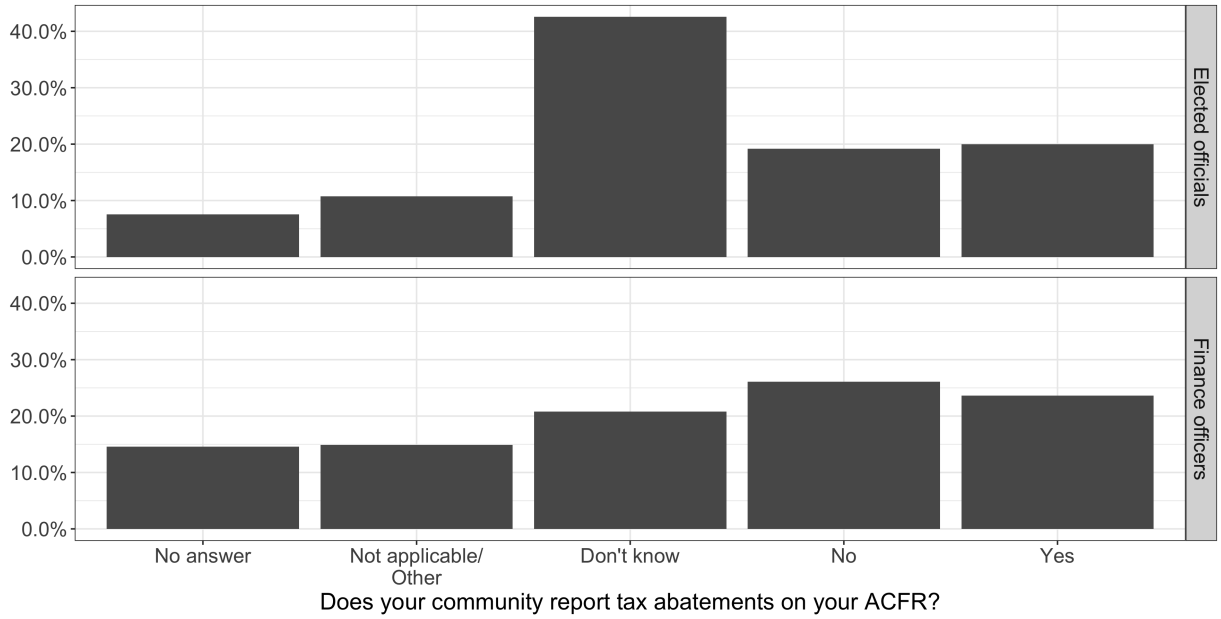


Figure 6: **Local Finance Officers and Elected Officials have limited knowledge of their own municipality's GASB 77 reporting.**

We included an additional question in surveys directly asking respondents if they included tax abatements in their annual financial reports. We present this data in Figure 6. To our surprise, 43 percent of elected officials indicated "don't know" when asked about tax abatement disclosures in their annual financial reports. Only 20 percent answered their abatements were included in their annual reports. City chief financial officers (bottom panel), were less likely to indicate they didn't know about abatement disclosures in their annual financial reports, but similar to the elected officials survey, only 23 percent indicated that their community disclosed tax abatements.

These survey results are suggestive a lack of information and effort on GASB 77 and tax transparency compliance. It is important to note that although our tax incentive data ends in 2018, this survey, fielded in Fall 2021, is consistent with our empirical evidence of any change in government effort post-GASB 77. Low levels of compliance, and knowledge, seem to limit the potential effectiveness of GASB 77.

6.3 Evidence from Elite Interviews

In 2014, GASB issued a call for public comments on their proposed tax incentive rule. Over 300 letters were submitted to GASB from individuals, foundations, public interest groups, unions, economic developers, and various professional associations (GASB 2016). As analyzed by Jensen and Malesky (2018), the vast majority of letters were supportive of GASB 77, often urging GASB to push even farther on tax abatement disclosures. We use this sample to identify policy professionals with expertise on local economic development and knowledge of GASB 77, and interview several of these professionals about their perceptions of whether or not GASB 77 has been successful (and if not, why not).

We hand coded these over 300 letters identifying individuals signing on behalf or organizations in support for GASB 77, using letterhead and signatures to identify these individuals as experts on the topic area. We identified 158 individuals signing letters in support for GASB 77.[20] The vast majority of these letters were of general support on transparency, including a single letter that listed numerous foundations in support of GASB 77. Of these 158 individuals, we identified 62 email address for our sample and invited them to participate in an anonymous, open-ended survey and a possible follow up. In total, 14 individuals agreed to take our survey and we conducted follow-up interviews with 6 individuals.[21]

All of our subjects expressed skepticism that GASB 77 had a major impact in incentive use in aggregate. No respondent in the Qualtrics survey, Zoom interviews, or email follow ups perceived GASB 77 has having a general impact on tax abatement practices.

This qualitative evidence supports our null results from our difference and difference analysis as well as our findings on the lack of salience of GASB 77 for elected officials. Supporters of GASB 77 do not see a significant change in aggregate incentives use. This is not to say GASB 77 had no impact. As argued by Greg LeRoy, Executive Director of Good

[20] Over 100 letters were signed by individuals responding as concerned citizens rather than policy experts. We did not include any of these individuals in our sample.

[21] Two of the respondents were referred to us by other organizations as experts who were supportive of GASB 77.

Jobs First, an incentive watchdog group, there are at two high-profile cases of reform efforts, Philadelphia and Kansas City and where GASB 77 disclosures motivated policy change. LeRoy notes: "Public education is the biggest loser to most abatement programs, so it's no surprise that financially strapped school districts like Kansas City and Philadelphia are benefiting from Statement 77 disclosures." The aggregate impact of GASB 77 is limited, but there are at least two cases of reform.

These GASB 77 inspired policy changes are rare, leading to our second main avenue for questions experts. Why hasn't GASB 77 lead to a systematic change in incentive use? Three general answers were provided.

First, some respondents didn't expect a direct change in incentive behavior. Mark Joffe, Senior Analyst at Reason Foundation, took a financial market perspective. "I don't think GASB 77 disclosures are meaningful for bond markets, in most cases. Tax abatements result in marginal increases or decreases in government revenues available for debt service. If an abatement was in place at the time of bond issuance, rating agencies and other analysts will have already factored in its revenue implications."[22] Professor Geoffrey Propheter questioned the salience of GASB for elected leaders. "I'm not convinced that putting tax incentive data in the notes section of a financial document that the average council member doesn't read or even know about will change anything." Thus, without financial markets responding to these disclosures, the link between this transparency and policy change is unclear.

Second, numerous respondents indicated ways in which communities were underreporting incentives. This includes non-compliance with GASB 77 by communities, inconsistent reporting, as well as certain types of tax incentives being exempt from GASB 77 reporting. According to Greg LeRoy of Good Jobs First, "We warned GASB repeatedly before Statement 77 was formally adopted that it was mishandling TIF, which is the costliest form of tax abatement in some states. To their credit, some localities are reporting TIF spending. GASB now needs to revisit the issue and clarify that TIF districts are abatements." University of

[22]Zoom interview and follow up email quote, 4/22/22.

Colorado-Denver Professor Geoffrey Propether argues, "I suspect that if GASB 77 affects local governments/bureaucratic decisions, it would be in how tax incentives are offered. If lawmakers want to avoid political risks of making tax breaks more salient, then they will find ways to provide financial benefits in other ways – ways that either do not apply to GASB 77's narrow tax abatement definition or ways that use nontax delivery mechanisms." Ron Shultis, Director of Policy and Research for the Beacon Center of Tennessee noted the difficulty of disclosure for small cities: "Smaller cities often don't know how to calculate or implement GASB 77... so many cities and counties provide incentives through an IDB and so that adds an additional layer of complexity for calculations or question on if those incentives are required to be disclosed through the city or county."[23] Whether this non-disclosure if due to lack of capacity or purposely avoidance, numerous respondents noted that this uneven disclosure seriously limits the impact of GASB 77.

Finally, transparency is a tool that can be used for policy change, but doesn't necessarily lead to immediate impacts. This theme of the importance of transparency in enabling advocacy is best summarized by John Mozena, President of the Center for Economic Accountability:

> I think [GASB 77] has been effective at helping advance the state of research and improving the ability of reform advocates to create effective, data-driven arguments for changing economic development incentive policy. Those in turn have had some small impact on changing economic development policy in some jurisdictions – witness the journalism exposing the failures of Texas's Chapter 313 program that pushed the Legislature to allow those subsidies to sunset – but the lack of more widespread reforms is less an issue of issues with GASB 77 and much more a factor of massive public choice incentives in favor of the status quo. It's far from a cure-all and much more is needed with regards to governments being meaningfully transparent about their economic development finances, but

[23] Qualtrics survey, 3/9/22.

we're better off after GASB 77 than we were before it.[24]

Pat Garofalo, Director of State and Local Policy at the American Economic Liberties Project, argues that activists need to make better use of this data. "It needs much better branding and comms around it amongst reform advocates. It sounds like a wonky technicality no one needs to think or care about and the line hasn't effectively been drawn between what the disclosures say and the outcomes at the local level."[25] Christine Wen, Senior Research Associate at Good Jobs First, made a similar argument: "For GASB 77 to be more effective in triggering changes, it needs to receive wider coverage and citation... I don't see how city officials would want to change their behaviors if there's no pressure. To crank up the pressure, especially in places that have big tax abatements, there needs to be more public awareness on the issue. It seems that many people still don't know that new jobs often come at a steep price."[26] Tim Bartik, Senior Economist at the W.E. Upjohn Institute, concurred: "I doubt that DISCLOSURE, by itself, will change behavior with respect to incentives. I think behavior with respect to incentives will change if different interest groups, and the public, become more aware of the various costs of incentives, which may stem from research that in part USES disclosed data."[27]

These elite interviews contain a mix of skepticism and optimism over the success of GASB 77. GASB 77 had led to an increase in transparency that can be harnessed by activists to push for policy change. But the limitations not only include the uneven compliance with GASB 77 and rules that restricts the types of incentives that are reported. Financial markets can not be expected to react to GASB 77 disclosures leading to policy responses. The main mechanism requires journalists, activists or academics using this tax incentive data as one motivation for policy reform.

These elites interviews support our difference-in-differences results and our survey findings. There is no evidence of a general shift in the use of incentives after GASB 77 through

[24] Qualtrics survey, zoom interview and follow up email quote.
[25] Survey and follow up email, 4/23/22.
[26] Zoom interview and email follow up quote, 4/28/22.
[27] Email quote, 5/4/22.

our difference-in-differences estimates, surveys or elite interviews. Issue of non-compliance were identified in our empirical analysis as well as in our survey and interview data. The salience of this policy is a related concern, with many government officials being unaware of their only disclosures.

These elite interviews add one additional piece of information not included in the previous analysis. There are two cases of GASB 77 induced reform where school reform advocates used GASB 77 data to champion incentive reform. Numerous interviews highlight the importance of activists using GASB 77 data to motivate policy reform. Our next section, examining the impact of local news capacity as well as competitive local elections, further supports the results from our elite interviews. GASB 77 data can be harnessed in a way that reduces the overuse of economic development incentives.

7 What Makes Transparency "Work?"

Our baseline empirical results revealed that, in the aggregate, GASB 77 did not lead to a reduction in local governments' tax incentive spending. Further, while we do detect some noncompliance with the policy change, our analysis of cities' financial reports reveals that GASB 77 did indeed increase the transparency of tax incentives' costs. Evidence from a survey of local government officials and elite interviews with policy experts corroborate our conclusion that transparency alone is not enough to change policymakers' actions. Under what conditions, if any, can transparency improve the quality of governance?

As indicated by several of our elite interviews, transparency often fails in the absence of a pressure group with an incentive to use the disclosed information to achieve some organizational goal. In this section, we identify multiple pressure groups that fit this description and attempt to measure their presence (or absence) at the municipal level. We then conduct statistical analyses to determine whether or not the presence of these pressure groups moderated GASB 77's effect on the incentive spending of local governments.

One such pressure group may be local news outlets, who have an interest in publicizing disclosed information (such as incentive spending) both to improve the quality of their product and to keep their readers informed. Decline in newsroom staffing has been shown to reduce political news coverage (Peterson, 2021) and to decrease competition and turnout in mayoral elections (Rubado and Jennings, 2020); it is plausible that local newspapers, by processing disclosed information and communicating its importance to voters, are critical for turning transparency into accountability. To measure the strength of local media presence, we use data from the UNC News Desert Project to count the number of local newspapers that were active in each of the cities in our sample as of 2014.

Second, another group with an interest in magnifying the impact of government disclosures is the set of challengers for local elected office (Grossman, Michelitch and Prato, 2024). When campaigning for office, non-incumbent candidates have an incentive to communicate indicators of government (non)performance to prospective voters; for example, if an incumbent mayor has chosen to forego substantial tax revenue in order to offer incentives to an investing firm, it might be politically expedient for a challenger to ensure that the public knows exactly how costly these incentives were. The effects of transparency reforms such as GASB 77 may therefore be larger in more municipalities where incumbents face political challengers, as incumbents know voters are more likely to actually learn about the disclosed information.

Measuring electoral competition at the local level has long been challenging due to the lack of systematic data on local election outcomes; however, the recently published American Local Government Elections Database (de Benedictis-Kessner et al., 2023) provides such information for 533 of the 757 municipalities in our sample. We measure political competition at both the extensive and intensive margins. First, we examine the most proximate pre-GASB 77 mayoral election in each of the 533 munipalities (e.g., the election that selected the mayor who was the incumbent at the beginning of our sample). We code the election as *contested* if the winning candidate did *not* receive 100% of the votes—in other words, if

the winning candidate did not run unopposed. To measure whether or not the election was *competitive*, we create indicator variables for whether or not the winning candidate received less than {80%, 70%, 60%} of votes cast.

According to our elite interviews, a third pressure group that might use disclosed incentive spending data to hold local governments accountable is nonprofit organizations dedicated to economic development reform. These organizations, such as Good Jobs First[28] and the W.E. Upjohn Institute,[29] produce reports, academic studies, and policy memos using disclosed data, and their efforts are likely to magnify the effects of transparency by spelling out the negative consequences of incentive spending. While we would ideally be able to conduct a similar analysis using comprehensive data on the local presence and activity of such organizations, no such data exists to our knowledge. Further, given that NGOs like Good Jobs First are often headquartered in one place (e.g. Washington, D.C.) but active in many others, a geographically-specific assignment of nonprofits to municipalities may produce substantial measurement error. We hope that future studies will make progress towards testing this important mechanism for making transparency work.

As a benchmark for the other tests, we also look for heterogeneity in the effect of GASB 77 according to cities' population size and GDP. Finally, we test for heterogeneity according to whether or not a city's state government formally requires it to prepare its financial accounts in compliance with GAAP standards (which would also require it to comply with GASB 77). However, we note that, as an empirical matter, there is no significant relationship between state-level requirements and cities' decisions to file according to GAAP standards.[30]

To test our expectations, we estimate triple-difference regressions using OLS that take the following form: $\ln(\text{Incentive})_{ist} = \lambda_t + \chi_i + Post_t + Taxincentive_s + [Variable]_i + \alpha(Post_t \times Taxincentive_s) + \beta(Post_t \times [Variable]_i) + \phi(Taxincentive_s \times [Variable]_i) +$

[28] https://goodjobsfirst.org/.
[29] https://www.upjohn.org/.
[30] More information about state-level GAAP requirements can be found in Appendix Section A.1.

$\delta(Post_t \times Taxincentive_s \times [Variable]_i) + \epsilon_{ist}$

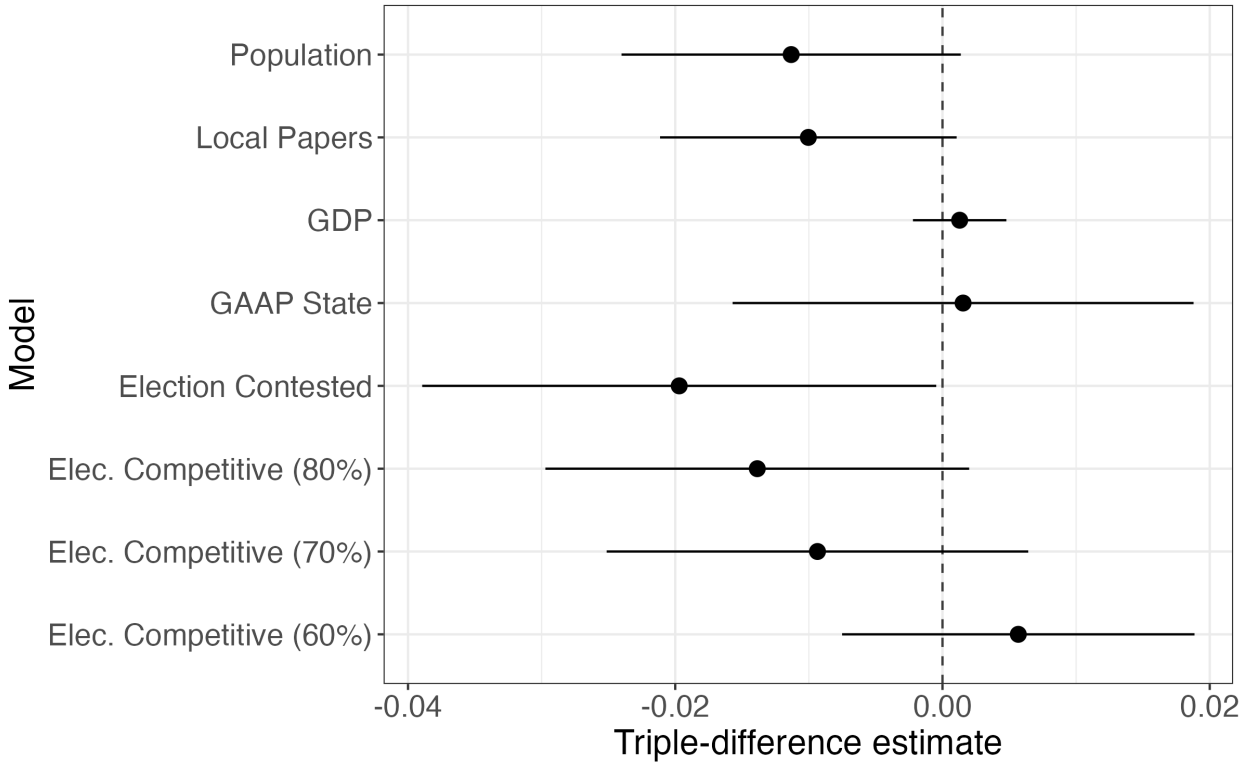
Cities are indexed by i, incentive type by s, and year-months by t. The coefficient of interest is δ, the triple-difference term. Negative estimates for this term indicate that—for cities with higher values of the given variable—GASB 77 had a more negative effect on tax incentive spending, while positive estimates indicate the opposite.

Figure 7 displays the results of five models, each presented with robust standard errors clustered on city and year-month. First, note that we observe no significant heterogeneity in GASB 77's effect on tax incentive spending according to GDP or whether it is located in a state that requires adherence to GAAP standards. However, we do observe that GASB 77 had a significantly *more* negative effect on tax incentive spending in cities with a larger number (logged) of local newspapers (though this is only significant at the $p < 0.1$ level). The effect size, at 4% of a standard deviation, is small but not insubstantial. This effect magnitude is similar to that of population, and while the two variables are correlated ($\rho = 0.42$), the correlation is not so great that we should conclude that the former is a proxy for the latter.

Notably, we see that tax incentive spending decreased as predicted relative to nontax incentive spending in politically contested municipalities after GASB 77. The effect is significant ($p = 0.05$) and relatively large in magnitude: the marginal effect of shifting from a non-competitive municipality to a competitive one is equivalent to the effect of a 2.93-standard deviation increase in the number of local papers active in a municipality. The result is similar, though somewhat smaller and less precisely estimated, for municipalities in which the incumbent received less than 80% of the vote. The coefficient attenuates further and loses significance even at the $p < 0.1$ level when we adopt stricter measures of electoral competition.

These findings suggest that transparency is unlikely to change policy under conditions of low electoral accountability, such as when an incumbent mayor faces no political opposition. Conversely, when policymakers must justify their performance in the face of criticism from

Figure 7: **GASB 77 and incentive spending: heterogeneous effects.** Each plotted point represents a triple-differences estimate from a separate model.



challengers, transparency may have its intended disciplinary effects. Notably, we find that competition matters most at the *extensive* margin; while we found a sizable difference in GASB 77's effects on municipalities in which the incumbent faced *any* challenger vs. those in which they ran unopposed, we found no evidence that this effect is magnified when electoral margins are narrower. Future work should investigate this nonlinear effect in greater detail.

We treat the results of this exercise as suggestive evidence that, while transparent disclosure of policy outcomes is not sufficient to affect policymaking, there are conditions under which transparency can be an effective tool for promoting good governance. Most importantly, we find that GASB 77 reduced tax incentive spending most sharply in the cities in which mayors face some degree of electoral contestation; we interpret this result as evidence that transparency can discipline policymakers if they perceive that challengers will publicize the results of poor governance. Further, we find that the presence of local news organizations—whether or not they actually report on the disclosed information—also mag-

nifies the effect of transparency, perhaps by generating a credible threat to communicate negative information to prospective voters. Future work should continue to study the contexts in which transparency can and cannot achieve more desirable policy outcomes.

8 Discussion and Conclusion

Economic development transparency continues to be a hard fought battle. In many states, NGOs sued state and local governments to release the details of offers made to Amazon HQ2, and transparency organizations such as Good Jobs First have painstakingly collect data on economic development incentives. GASB 77, the major national transparency change in state and local economic development, was hoped to rein in excessive economic development spending and lead to better policy making.

However, our empirical results from difference-in-differences models show that GASB 77 had no effect on tax incentive spending in affected municipalities, and we found no evidence of any other changes in economic development policy making. We investigate three reasons for the policy change's lack of impact.

First, there are concerns that municipalities aren't complying with this rule. Our own analysis of thousands of annual comprehensive financial reports finds that compliance with GASB 77 is far from universal, with a minimum of $\sim$25% of municipalities failing to publicly report their tax incentive spending. This lack of compliance is in line with the existing work on the subject. Propheter (2021) finds systematic lack of compliance with GASB 77 in Colorado, and descriptive data by NGO Good Jobs first documents systematic noncompliance at city, county and school district with abatements. While this noncompliance is concerning, our analysis finds no difference in incentive spending between compliant and noncompliant municipalities; thus, we conclude that noncompliance alone cannot explain GASB 77's noneffect.

Second, our original elite survey data shows a systematic lack of incentive reporting

knowledge among local policymakers: familiarity with GASB 77, and with their own city's tax incentive reporting practices, is particularly low among elected officials. Cost transparency may therefore fail to change incentive spending, even in compliant municipalities, because the officials who stand to gain from brokering incentive deals do not know that it has been implemented. Increasing the salience of this accounting standard—informing policymakers that their incentive spending will be scrutinized by the public—could therefore be a low-cost method for improving economic development policy.

Finally, and most importantly for political science research, the unconditional benefits of transparency for improving public policy may have been overstated. Elite interviews suggested that there are benefits to transparency, but other conditions are necessary for transparency to lead to policy reform. In the two cases of reforms by cities outlined by Greg LeRoy of Good Jobs first, local stakeholders used GASB 77 disclosures to raise the salience of tax abatements. Our heterogeneous effects analyses suggest that GASB 77 may have had stronger effects in the presence of groups that can use disclosed information to place pressure on local elected officials, such as challenger candidates and news media organizations. Future research should investigate the role of economic development nonprofits as another pressure group that can magnify the effect of transparency. Without these stakeholders, it is unclear if these disclosures would have had any meaningful impact on public policy.

This final point should be of particular interest to social scientists studying transparency and public policy. As numerous U.S. municipalities see reductions in local news staff and many communities are now in news deserts, as local electoral competition declines as a result (Rubado and Jennings, 2020), and as the steady erosion of civic organizations and social capital continues apace (Putnam, 2001), policy changes that increase the transparency of government are increasingly unlikely to affect the *quality* of government. Equally important as transparency is the existence of local stakeholders willing to wield the newly released information to push for policy reform. These groups may be key to overcoming the public's documented inability to attribute local conditions to local leaders (de Benedictis-Kessner,

2018) and increasing accountability.

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A Appendix

A.1 More details on state-level variation in GAAP reporting requirements

All U.S. state governments are required to file their own financial reports in accordance with GAAP; however, some states require their municipal governments to follow GAAP standards while others do not.[31] Twenty-nine U.S. states fall in the latter group, and thus local governments in these states face no legal requirement to comply with GASB's Statements.[32] Despite this, most large local governments in these states nevertheless follow GAAP standards; for example, a GASB report notes that the majority of Californian cities are GAAP compliant, though they have no legal requirement to be. A likely explanation for this is that most local governments want to be able to issue municipal bonds in order to fund projects and operations, and both credit rating agencies and prospective bondholders respond more favorably when local governments prepare their financial accounts in line with the broadly accepted GAAP standard.

[31] For a detailed report on state-level reporting requirements, see https://gasb.org/document/blob?fileName=GAAP_Research_Brief.pdf.

[32] The states are Alabama, Alaska, Arkansas, California, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Michigan, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Texas, Vermont, Washington, West Virginia, and Wyoming.

A.2 Additional results: noncompliance

Table A.1: **Results of GASB 77 on tax incentive spending are statistically indistinguishable for compliant and noncompliant municipalities.**

	DV: logged incentive spending		
	Compliers	Noncompliers	Triple diff
Tax incentive	0.035***	0.041***	0.035***
	(0.008)	(0.008)	(0.008)
Tax incentive × GASB 77	-0.005	-0.006	-0.005
	(0.004)	(0.006)	(0.004)
Tax incentive × noncomplier			0.006
			(0.011)
GASB 77 × noncomplier			-0.001
			(0.004)
Tax incentive × GASB 77 × noncomplier			-0.001
			(0.008)
Num.Obs.	51264	21312	72576
R2	0.143	0.070	0.121
City FE	Y	Y	Y
Year-Month FE	Y	Y	Y

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001