

Mandatory US Subsidy Disclosures: Early Evidence

Dian Jiao

Columbia Business School

Aneesh Raghunandan

Yale School of Management

Shiva Rajgopal

Columbia Business School

Min Jun Song

Columbia Business School

February 2025

Abstract:

In November 2021, the Financial Accounting Standards Board passed ASC 832, mandating disclosure of government subsidy-related information in annual reports. ASC 832 did not prescribe specific measurement, recognition, or presentation guidelines, giving firms discretion to determine compliance practices. In this paper, we provide initial evidence on firms' disclosures under the new standard. We highlight three key findings. First, both the quantity and quality of subsidy-related disclosures improved following the standard's implementation, but improvements are concentrated in firms receiving larger subsidies or previously voluntarily disclosing subsidy-related information. Second, despite the standard's adoption, firms do not disclose substantial subsidies, potentially dampening the standard's impact. We leverage the observability of non-compliance, unique to our setting, to identify information withholding. Third, given ASC 832's limited scope, public firms are increasingly pursuing subsidies not subject to the disclosure mandate. Our findings highlight both the immediate impact of the standard and shortcomings of its implementation.

Keywords: subsidies; disclosure; ASC 832.

For helpful comments and suggestions, we thank Lisa De Simone, Kurt Gee, Katharina Hombach (discussant), Kalash Jain, Allison Koester, and Mark Maffett (discussant) as well as workshop participants at the 2024 Barcelona Accounting Workshop, Columbia Business School Reading Group, and the 2025 Hawaii Accounting Research Conference. We thank Good Jobs First for access to the Subsidy Tracker database and the National Institute on Money in State Politics for providing expanded access, as well as Eugenia Bornacini for excellent research assistance. Any errors are our own.

1. Introduction

In recent years, subsidies targeted at individual firms have grown in frequency and prevalence in the US (Slattery and Zidar 2020), and subsidies to publicly traded firms alone cost state and local governments billions of dollars per year (Good Jobs First, 2024). Such subsidies often have a meaningful effect on recipient firms' financial reporting and capital structure choices (Pappas, Walker, Xu, and Zeng 2024; Hess and Mills 2024). In November 2021, recognizing the economic importance of such subsidies, the Financial Accounting Standards Board (FASB) implemented a new accounting standard, ASC 832, requiring firms to provide financial statement disclosures about government assistance received. Such disclosures were required for fiscal years beginning after December 15, 2021. A key goal of ASC 832 was comparability: by increasing transparency related to government assistance and providing guidance on how to disclose assistance received, standard setters sought to enable a better understanding of how reliance on subsidies may affect a firm's financial statements.

Our study seeks to provide initial evidence on the impact of ASC 832. While we cannot fully observe implementation costs and confidentiality, our goal is to characterize how disclosure practices evolved with the introduction of ASC 832 and the determinants and consequences of subsidy disclosures. A unique feature of our setting is the availability of an alternative data source of subsidies derived from governmental disclosures: Good Jobs First's Subsidy Tracker. Subsidy Tracker allows us to identify firms that withhold subsidy-related information from their 10-K filings despite receiving nontrivial government assistance and examine potential determinants of such withholding.

ASC 832 mandates the disclosure of (i) the nature of government assistance received and related accounting policies, (ii) the amount of government assistance recognized in the related financial statement line items (e.g., revenues, SG&A, or deferred income), and (iii) significant terms and conditions of government assistance received. However, the new standard

focuses on disclosure rather than recognition, measurement, and presentation guidance of new line items on financial statements, unlike the corresponding IFRS standard (IAS 20. Dissenters and critics have argued that ASC 832 is unlikely to be decision-relevant to investors and other financial statement users because (i) the implementation costs of producing such information may exceed the benefits; (ii) the new rules may lead to diverse non-comparable disclosures; and (iii) ASC 832 may force firms to disclose confidential information (Desir, Pfeiffer, and Roberts, 2020).¹

We ask three questions. First, to what extent has ASC 832 resulted in more frequent and informative disclosure by subsidy recipients? Second, to what extent do firms withhold subsidy-related information in the post-ASC 832 period, and what factors drive the withholding? Third, what are the consequences of the disclosure mandate in terms of stock market reactions and firms' subsidy-seeking behavior? We emphasize that our analyses are primarily descriptive in nature. Nonetheless, our study aims to characterize the initial impact of a new accounting standard in a timely fashion and, in turn, enables future work on longer-term shifts in firms' disclosures.

While ASC 832 was implemented to increase firms' subsidy-specific disclosures, there are several reasons that we may observe negligible effects. First, while the standard does not explicitly allude to materiality thresholds to warrant disclosure, the standard-wide materiality considerations of GAAP may apply, consistent with the observed disclosures. Given the substantial discretion involved in estimating the total present value of multi-year subsidy packages (Good Jobs First 2024), firms may be able to estimate subsidy values in a way that falls below relevant thresholds for disclosure. Relatedly, subsidies are not recognized in the financial statements until there is reasonable assurance that the company will meet conditions

¹https://www.fasb.org/projects/comment-letters/details?metadata=fasb_AccountingforGovernmentGrantsbyBusinessEntities_0228221200&PageId=/projects/commentletter.html&searchText=&page=2

associated with the assistance, which can involve significant discretion. Second, the new standard only applies to specific types of subsidies (namely cash grants and tax abatements, but not income tax credits), potentially enabling firms to seek out different types of subsidies to avoid the need for reporting. Beyond these reasons, as with other forms of proprietary information, firms may not comply with the standard if they expect the costs of disclosure to exceed the benefits.

To assess the early impact of the new standard, we construct a novel dataset of US public companies' subsidy-related disclosures in 10-K filings for 2018-2022 using a mix of hand collection, textual analysis, and XBRL tags. Our sample includes firms identified in Good Jobs First's Subsidy Tracker database as having received a subsidy at some point, as well as those providing subsidy-related disclosures in 10-Ks but not included in Subsidy Tracker. The latter subset arises from subsidies either undisclosed by US state and local governmental sources or granted by foreign governments.²

Using this data, we document several stylized facts about subsidy-related disclosures in the US. The new standard has impacted the frequency of subsidy disclosures: while only 5.8% of firms in our sample provided such disclosures in 2018, this figure increases to 18.2% in 2022, the first full year after the standard's adoption. Firms that voluntarily disclosed subsidy-related information prior to the implementation of ASC 832 continue to provide disclosure in the post-ASC 832 period.

Although ASC 832 mandates the disclosure of subsidies, the extent of information firms provide remains a voluntary decision. Hence, as a next step, we examine whether the greater *quantity* of disclosure after the introduction of the standard represents a meaningful increase in the *quality* of disclosures provided. Although 5.8% of our sample firms disclosed some

² De Simone, Lester, and Raghunandan (2024) highlight significant heterogeneity across states and over time with respect to governments' subsidy-related disclosure practices.

information about government subsidies in 2018, only 2.1% of sample firms (or 36.2% of disclosures) described their accounting policies related to the recognition of subsidies. In the post-ASC 832 period (2022), this figure rises substantially to 10.3% (or 56.4% of disclosures). Similarly, nearly six times as many firms disclosed numerical values in conjunction with related accounting policies and/or the nature and types of subsidies in 2022 (153 firms) compared to 2018 (28 firms). Overall, these results suggest that the quality of subsidy-related disclosures improved with the introduction of ASC 832.

In many settings involving disclosure mandates, it is challenging to identify potential non-compliance or withholding of required information because the underlying transactions are unobservable to outsiders. Uniquely for government assistance, data on subsidies received by firms is available via Good Jobs First's Subsidy Tracker database, which compiles information from governmental disclosures. We document suggestive evidence that some firms withhold information regarding government assistance in their 10-K filings: only 10% of firms having received relevant subsidies in the five years prior to the introduction of the new standard provide disclosures about subsidies, even though many of these subsidies are likely to affect current-period financial statements given both subsidy structure and accrual accounting principles.³ Similarly, nearly 80% of firms receiving subsidies worth more than \$1 million or 0.5% of annual sales do not disclose government assistance.⁴ The results highlight that many firms withhold information about government assistance received even after the implementation of ASC 832, given that (i) ASC 832 does not explicitly impose a materiality threshold and (ii) firms have discretion to determine when the recognition conditions are

³ Many of the subsidies in our sample are tax abatements and other forms of tax rebates, which are typically awarded by state governments for multi-year periods and would thus affect recipients' financial statements for that entire period. Moreover, other forms of subsidies – e.g., certain types of cash grants or infrastructure assistance – are awarded for activities that are undertaken over several years; accrual accounting principles imply that recognition of these subsidies should occur in line with the underlying activities.

⁴ The audit literature documents that major accounting firms commonly rely on the 0.5% of sales threshold, among other criteria, to determine materiality. Section 4.2 provides more details.

satisfied. For instance, over 10% of post-ASC 832 disclosures simply state that the disclosing firms do not consider subsidies or ASC 832 as having a material impact on their financial statements (see Meta's example in Appendix B).

Next, we examine potential drivers of information withholding regarding subsidies. We find that firms receiving more subsidies are less likely to withhold subsidy-related information. In contrast, profitable firms, high-R&D firms, and firms with less geographically dispersed operations or in more competitive industries are more likely to withhold subsidy-related information. Moreover, firms operating in politically sensitive industries and those with more lobbying expenditures are less likely to withhold subsidy-related information, possibly reflecting heightened public scrutiny and political pressures for transparency (Huang 2022). Firms that voluntarily disclosed subsidies before the adoption of ASC 832 are significantly less likely to withhold such information afterward, highlighting consistency in their disclosure policies. Conversely, firms issuing earnings guidance are slightly more likely to withhold subsidy-related information. This may reflect such firms having stronger incentive to divert analysts' attention away from scrutinizing specific components of earnings, given evidence that analysts overweight management guidance relative to individual components of earnings (e.g., Feng and McVay 2010).

Our subsequent tests examine shifts in the quantity and quality of subsidy disclosures around ASC 832. Disclosure rates significantly increase after ASC 832, particularly among firms receiving larger subsidies. Firms with a one-standard-deviation increase in subsidies relative to assets experienced a 2.47% rise in disclosure rates post-ASC 832, representing 57.45% of the sample mean. Beyond disclosure incidence, we evaluate disclosure quality along three dimensions: accounting policy descriptions, the nature or type of subsidies, and numerical subsidy amounts. We find firms receiving large subsidies improve their narrative disclosures (accounting policies and subsidy types) but do not increase their disclosures of numerical

figures. This result is consistent with such firms not wanting to undermine the perception of their own financial performance (e.g., by suggesting that a large portion of their profits reflect subsidies rather than core operations). Prior voluntary disclosers improve both qualitative and quantitative disclosures, suggesting that ASC 832 reinforced existing tendencies for transparency. In contrast, we do not observe such improvements for firms with lobbying activities, consistent with the notion that political pressure compels firms to provide more disclosure on subsidy only when it is substantial.

We next examine the market response to substantial disclosure of subsidies, defined as disclosures made by firms receiving subsidies in excess of \$5 million. Because subsidy disclosures are identified in 10-Ks, we cannot employ an event study approach. We therefore follow prior work (e.g., Ferri et al. 2018) and examine the market response to earnings surprises as a function of substantial subsidy disclosures. We find that favorable earnings surprises accompanied by significant subsidy disclosures elicit less positive market reactions, suggesting that earnings surprises backed by government assistance may be viewed as less sustainable. However, the effect attenuates after the implementation of ASC 832, consistent with the notion that voluntary disclosure of subsidies may provide a stronger signal of reliance on subsidies relative to mandatory disclosure.

Our final sets of tests examine potential real effects on firms' subsidy seeking. Subsidies can be categorized into three groups: (i) tax breaks that affect a firm's income taxes, (ii) tax breaks that do not affect a firm's income taxes (such as property tax abatements), and (iii) cash grants. The scope of ASC 832 is largely limited to (ii) and (iii), meaning that firms seeking to avoid disclosure-induced scrutiny over their subsidies may exhibit a shift from (ii) or (iii) to (i). Such shifts should be stronger in US public firms than non-US firms or US private entities, which are not subject to the mandate. Indeed, using aggregated state-level subsidy data, we find that after ASC 832, public firms receive fewer cash grants and tax abatements than

income tax breaks. This shift does not appear to be driven by anticipation, as no such effect is observed following the FASB's first Exposure Draft in 2015. While based on limited post-mandate data, our findings suggest that ASC 832, like other accounting mandates, may have influenced firms' real decisions with respect to the types of subsidies they seek.

Our study contributes both to practice and to the academic literature on subsidies. Government subsidies to individual firms have become increasingly common in terms of both frequency and magnitude (Slattery and Zidar 2020). A growing body of work highlights potential inefficiencies in the subsidy-giving process (Aobdia, Koester, and Petacchi 2024; Slattery 2023; Dong, Raghunandan, and Rajgopal 2024), and to that end, recent years have seen calls for greater subsidy-related transparency. ASC 832 represents the first step taken by US standard setters in this regard, and our study provides the first evaluation of the standard's impact. Moreover, on November 1, 2023, the FASB added a project to its technical agenda to address the accounting for the recognition, measurement, and presentation of government grants. As of January 2025, this project had received 31 comment letters with mixed tones. For example, Ernst & Young suggested that ASC 832 was sufficient, while Deloitte and KPMG supported a project with a broader scope and a focus on recognition to supplement ASC 832. In line with the latter, on June 4, 2024, the FASB voted in favor of a proposal that would require US firms to recognize government grants and non-income tax breaks in a manner analogous to the corresponding IASB standard (IAS 20). Our study informs this ongoing public debate.

Academically, our study contributes to a nascent literature on the determinants and consequences of subsidy-related disclosures by both firms and governments (Li, Tan, and Zeng 2021; Huang 2022; De Simone, Lester, and Raghunandan 2024) as well as how subsidies affect firms' financial reporting practices more generally (Hess and Mills 2024; Pappas et al. 2024). Our findings are mixed in this regard. While firms do provide more disclosures under ASC 832 relative to the pre-ASC 832 periods, the limited guidance provided by the standard and its

exclusion of several economically important forms of subsidies (e.g., income tax reductions) may ultimately result in limited benefits for investors and other users of financial statements. We also contribute to the broader literature on the impact of accounting disclosure mandates. In most settings, it is not possible to directly observe the quantity being disclosed through other sources and, as such, to assess potential (non)compliance with the standard. In contrast, using state and federal governmental disclosures captured via Subsidy Tracker, we document significant rates of information withholding for firms verified as having received subsidies. Collectively, our findings highlight both the immediate influence of the standard on firms' disclosure patterns as well as potential shortcomings.

2. Background and Related Literature

2.1 Background on ASU No. 2021-10 (ASC Topic 832)

In November 2021, the FASB issued ASU No. 2021-10, *Government Assistance (Topic 832): Disclosures by Business Entities About Government Assistance*, which we hereafter refer to as ASC 832 or the new standard. The stated goal of the new standard is to increase transparency related to firms' disclosure of government assistance (i.e., subsidies) as well as to standardize such disclosures. The standard's focus is primarily on disclosure and remains largely silent about the recognition of subsidies.⁵ Prior to ASC 832, the nature of firms' disclosures about subsidies – including whether firms disclosed anything at all – exhibited substantial heterogeneity, given the lack of formal guidance on how to recognize, measure, and present government assistance.

While ASC 832 was initially proposed in 2015, there was significant uncertainty as to whether and in what form it would pass. The FASB solicited public comments from November

⁵ On November 1, 2023, the FASB added a project to its technical agenda on the accounting for the recognition, measurement, and presentation of government grants and, on April 3, 2024, decided to rely on the framework outlined in IAS 20. Whether ASC 832 will eventually incorporate additional guidance on recognition, measurement, and presentation remains an open question.

2015 and received 40 comment letters from various stakeholders – including all of the Big Four accounting firms – by the end of the comment period in February 2016. The FASB characterized the letters as broadly supportive of the proposed standard,⁶ albeit with substantial dissent from several firms and auditors. In light of such dissent, and given disagreement over what disclosures ought to be required, the FASB did not pass the standard for several years and, indeed, a 2019 KPMG bulletin highlighted that after the initial issuance of the proposed standard, there had been “no significant movement” in that project for three years.⁷ Interest in the proposed standard was renewed during the COVID-19 pandemic, as government assistance provided to firms significantly increased and drew public attention. The standard was ultimately passed in November 2021, affecting annual financial statements for reporting periods beginning on or after December 15, 2021.

ASC 832 requires firms to disclose (i) the nature of the government assistance and related accounting policies, (ii) the amount of government assistance recognized in the related financial statement line items (e.g., revenues, SG&A, or deferred income), and (iii) significant terms and conditions of government assistance received. The scope of ASC 832 is limited to transactions with governments that are accounted for under a grant or contribution accounting model (similar to, e.g., IAS 20 or, in the context of nonprofit accounting, Subtopic 958-605).⁸ Explicit reference to IAS 20’s grant accounting model is made within the new FASB standard. IAS 20 defines government assistance as “*action by government designed to provide an economic benefit specific to an entity or range of entities qualifying under certain criteria.*” IAS 20 excludes government assistance provided indirectly through action affecting “general trading conditions” – e.g., providing infrastructure assistance such as building new roads even

⁶ [https://www.fasb.org/page>ShowPdf?path=ASU_2021-10.pdf&title=Accounting%20Standards%20Update%202021-10%20%94Government%20Assistance%20\(Topic%20832\)%20Disclosures%20by%20Business%20Entity](https://www.fasb.org/page>ShowPdf?path=ASU_2021-10.pdf&title=Accounting%20Standards%20Update%202021-10%20%94Government%20Assistance%20(Topic%20832)%20Disclosures%20by%20Business%20Entity)

⁷ <https://kpmg.com/us/en/articles/2023/government-grants-ifrs-compared-to-us-gaap.html>

⁸ Initially, the FASB considered limiting the scope to “discretionary” government assistance. However, several comment letters raised concerns over a lack of clarity between discretionary and non-discretionary assistance.

if the primary goal of those roads is to facilitate access to a specific company's facility. Importantly, IAS 20 further excludes from its scope "*government assistance that is provided for an entity in the form of benefits that are available in determining taxable profit or tax loss, or are determined or limited on the basis of income tax liability.*" Examples of such benefits include income tax holidays, investment tax credits, accelerated depreciation allowances, and reduced income tax rates. To that end, the scope of ASC 832 is largely limited to government subsidies other than income tax reductions; in practice, these are tax abatements (typically rebates of property taxes or sales taxes), cash grants, training reimbursements, and low-interest loans. However, as we illustrate in Appendix B, firms frequently provide disclosures related to tax credits outside the scope of ASC 832 in conjunction with their ASC 832-mandated disclosures.

2.2 Related Literature

A wide body of literature, spanning accounting, finance, and public economics, highlights the antecedents and consequences of targeted corporate subsidies with respect to firms' behavior and financial performance. With respect to firms' behavior in subsidizing jurisdictions, Criscuolo et al. (2019) show, in the European setting, that subsidies can have a causal effect on local investment and employment. Conversely, Slattery and Zidar (2020) find minimal evidence that subsidies, in aggregate, are associated with broader economic growth in the US. The contrasting findings in these two studies may reflect heterogeneity in how subsidies are awarded by governmental entities; indeed, Aobdia et al. (2024) and Slattery (2023) highlight the role of politics in the subsidy-giving process. Recent work also highlights potential negative externalities associated with subsidies in the form of higher levels of corporate misconduct in subsidizing jurisdictions (Raghunandan 2024).

Another stream of literature examines the impact of subsidies on firms' financial reporting and disclosure practices. For example, Hess and Mills (2024) examine the subsidy

disclosures after ASC 832 and find that both the receipt and magnitude of government assistance are strongly associated with lower financial leverage, while Pappas et al. (2024) document a link between income smoothing and firms' receipt of subsidies. These two studies, in conjunction with Drake et al. (2022), highlight the potential decision relevance of subsidies to investors and, hence, the potential importance of understanding the impact of the new standard. The study closely related to ours is Huang (2022), which highlights that subsidy recipients provide more substantive voluntary disclosures about operational activities after receiving subsidies. We directly examine mandatory disclosures about subsidies, which better enable investors to isolate the effect of subsidies on firms' financial positions from other factors. More generally, beyond the subsidy context, our study also builds on prior work that examines the economic consequences of disclosure mandates in a broader sense (Beyer, Cohen, Lys, and Walther 2010). A distinctive feature of our setting is the observability of subsidies through an alternative data source. This allows us to quantify the withholding of subsidy-related disclosures and investigate the factors driving this behavior. This contrasts with most disclosure settings where non-compliance or information withholding is difficult to detect due to the unobservable nature of the underlying transactions.

3. Data

3.1 Subsidy Recipients

We identify publicly traded recipients of targeted subsidies from Good Jobs First's *Subsidy Tracker* database. This database is the most comprehensive source of information on subsidies awarded by US federal, state, and local governments, drawing primarily from public governmental disclosures supplemented by Freedom of Information Act requests. The data are provided at the subsidiary company level, with parent-subsidiary matches available for larger public companies (roughly the Russell 3000). To avoid erroneously classifying a firm as never

having received subsidies – when, in reality, we may simply not observe parent-subsidiary matches for that firm – we follow Raghunandan (2024) and consider only those firms with at least one observation in either Subsidy Tracker or Violation Tracker, Good Jobs First’s other primary firm-level dataset.⁹

Subsidy Tracker data includes subsidies targeted to specific firms but excludes, e.g., statutory tax breaks that a firm can qualify for without directly interacting with the awarding government. Subsidy Tracker data contains information on subsidies that fall under the purview of ASC 832 – e.g., grants, low-interest loans, property or sales tax abatements – as well as those that do not (primarily reductions to state or local income taxes). We aggregate data to the parent company-year level for our primary analyses. However, given that the data rely heavily on state government disclosures, data quality can vary substantially by state and year; therefore, we aggregate Subsidy Tracker data to the state-year level for our tests of the real effects of the mandate (presented in Section 6).

In our analyses, we rely on firms identified by Good Jobs First’s coverage universe, as outlined above, as well as those not in Subsidy Tracker, for which we identify subsidy-related disclosures in 10-K filings. We discuss that data next.

3.2 Disclosures of Government Assistance in Firms’ Annual Reports

We obtain data on subsidy-specific disclosures directly from firms’ 10-K filings. To do so, we rely on XBRL tags in conjunction with textual analysis and manual verification. We begin by using XBRL tags to identify and measure firms’ subsidy-related disclosures. The XBRL mandate (SEC 2009) requires firms to tag and describe (i) any numerical values and (ii) footnotes contained in their 10-Ks as XBRL instances. Thus, any disclosure of numerical values associated with government assistance (in footnotes and/or financial statements) can be

⁹ Good Jobs First engages in parent-subsidiary matching for a common set of parents across the two databases; a firm’s appearance in Violation Tracker but not Subsidy Tracker implies that the firm received no subsidies from any of the sources underlying Subsidy Tracker.

identified by inspecting the description and tag names of XBRL instances both before and after the adoption of ASC 832.¹⁰ To extract footnote information, we note that ASC 832 mandates firms to disclose significant accounting policies related to government assistance, which are associated with their own XBRL instances. Once the subsidy-related XBRL instances are obtained, we manually check the tag names and descriptions and their textual information to ensure that they are valid disclosures about government assistance.

There are three hierarchical levels of textual information in XBRL data: tag name, long/short description, and textual information. As a first step, we search for disclosed information about government subsidies using the tag name and tag description. In particular, we search for tags that contain the morphological generation of both “government” and any word among “subsidy,” “grant,” “incentive,” and “assist” in the tag name or tag description. After this coarse matching procedure, we manually check all identified tags to filter out those irrelevant to the disclosure of government subsidies.

We further extract the information attached based on the tags properly matched to government subsidies. The tagged data contains both textual and numerical information and is further classified as either standardized or customized. The SEC defines a collection of standard tag names each year (standardized tags), while firms also have the discretion to define their tag names (customized tags). For the 10-K filings we identify as potentially containing subsidy-related information, we extract the textual information under the XBRL tag of “SignificantAccountingPoliciesTextBlock”. From this, we manually identify texts related to government subsidies and label whether the disclosure of government subsidies contains (i) material information, (ii) a description of the accounting policy, (iii) the nature of the

¹⁰ We also note an additional institutional fact that aids us in collecting data for fiscal years ending within twelve months of ASC 832’s adoption: firms are required to discuss significant accounting standards that have been issued but not adopted yet. In practice, this means that firms’ 10-K filings for periods ending between December 2021 and November 2022 should also contain footnote disclosures related to ASC 832, albeit less detailed than what would be required after the introduction of the standard. See Ford’s FY 2021 example in Appendix B.

government assistance, (iv) any concrete numeric values, (v) whether the subsidies are provided by the federal or foreign government. We also separately code whether the disclosure relates to COVID-19-related subsidies (most commonly arising from the CARES Act). Appendix A provides an example of an XBRL instance with the contents embedded in it (tag, description, and information) and illustrates how it is structured and how we code the disclosure of government assistance. Appendix B provides examples of the subsidy-related disclosures extracted from 10-K filings.

3.3 Other Data

To understand potential determinants of subsidy-related disclosure, we collect several measures of financial and stock market performance. These are drawn from prior literature that relate subsidies to firms' financial performance (e.g., Drake et al. 2022; Dong et al. 2024; Hess and Mills 2024) and disclosure practices (Huang 2022) and include firm-level financial data such as size, profitability (measured as return on assets), leverage, and financial data disaggregation (Chen, Miao, and Shevlin 2015). These data come from Compustat. Beyond measures of financial performance, we also include several variables that capture a firm's stock market performance (book-to-market, momentum, and return volatility), which we calculate using data from CRSP. We rely on I/B/E/S for data on analyst forecasts, analyst coverage, and earnings guidance. Additionally, we obtain data on political contributions from the National Institute on Money in State Politics (NIMSP), following Aobdia, Koester, and Petacchi (2024) and Dong, Raghunandan, and Rajgopal (2024). To limit the influence of outliers, we winsorize all continuous variables at 1% in each tail of the distribution.

Table 1, Panel A presents summary statistics of the variables included in our main specification. The sample is restricted to firms with non-missing control variables in our regressions. The median market capitalization of the sample is 3.42 billion USD, and the median ROA is 3.2%. Over 95% of our sample firms (untabulated) have at least one analyst

covering the firm, and around 84% of sample firms are audited by the Big Four accounting firms. Overall, our sample consists of large firms with a relatively transparent information environment. Table 1 Panel B presents Pearson correlation coefficients. Several variables correlate significantly with the indicator variable for firms' subsidy disclosures.

4. Descriptive Patterns in Subsidy Disclosures

We begin our empirical analyses by descriptively examining patterns in firms' subsidy-related disclosures. Table 2, Panel A reports the number of firms by year. As Columns (1) and (2) suggest, our sample includes around 1,800 firms each year, with 1,600 to 1,700 firms drawn from the Good Jobs First coverage universe. As Column (4) suggests, 196 firms in our sample in 2022 are not followed by Good Jobs First, indicating the potential value of subsidy-related disclosures – now under the purview of ASC 832 – that would not have been available elsewhere. Column (5) presents the number of firms disclosing government assistance in their 10-Ks among the Good Jobs First sample. Comparing Columns (4) and (5) suggests that in 2022, nearly 60% ($196 / (196 + 132)$) of disclosed subsidies that we identify were not tracked by Good Jobs First.

Table 2, Panel B presents rates of subsidy disclosures and their content by year using our full sample of firms. Panel B shows that the proportion of firms making any disclosures about government assistance (Column 2) – whether meaningful or boilerplate – gradually increases over time, reaching 18.2% by 2022 (the first year that ASC 832 became effective for most firms). Turning to our measures of disclosure quality, we see that after the mandate's implementation in 2022, 2.2% of firms – or 11.9% of disclosers – indicate that government assistance or ASC 832 does not have a material impact on their financial statements (Column 4), implying some of the disclosures we identify are boilerplate statements that do not provide detailed information about government assistance. Turning to measures that capture the

granularity of disclosure, we see that 10.3% of firms (56.4% of disclosers) provide relevant accounting policies (Column 5), while around 8% of firms – slightly under half of those that disclose – discuss the specific nature and types of subsidies (Column 6) and their quantitative impact in the significant accounting policy section or other dedicated sections for government assistance (Column 7). We note that 6.2% of firms (the difference between *NumericalDisc* in Column 7 and *XBRLNumericalDisc* in Column 8; 14.7% minus 8.5%) disclose numerical values of subsidies without providing supplementary disclosures about them in the footnotes.¹¹ Finally, 8.2% (3.6%) of firms disclose US (foreign) government entities as the providers of the subsidies, while the remainder of 10-K disclosures do not specify the awarding government.

4.1 Temporal Patterns in Disclosure

The disclosure patterns we observe in Panel B and C of Table 2 suggest a significant increase in both the quantity and quality of subsidy disclosures after the implementation of ASC 832. Panel B shows that in 2018 and 2019, less than 6% of firms disclose any information about government assistance in their 10-Ks (*AnySubsidyDisc*), while 2.1% of firms describe related accounting policies (*AcctPolicyDisc*), and 1.6% describe the nature and types of subsidies (*NatureTypesDisc*). In Panel C, we also observe a steady increase in disclosure after 2019; the number of disclosers sharply rises from 2019 to 2020 (a 94.3% increase from 106 to 206), from 2020 to 2021 (a 27.7% increase from 206 to 263), and from 2021 to 2022 (a 24.7% increase from 263 to 328). The increase in 2020 is not fully explained by the 2020 COVID-19 stimulus package (the CARES Act), as only 14.1% of disclosures mention COVID-19 or the Act. One potential explanation for the 2020 increase in disclosure relates to the FASB renewing its interest in the proposed standard in 2019 after having shifted its focus elsewhere since the

¹¹ *NumericalDisc* and *XBRLNumericalDisc* refer both to numerical disclosures about subsidies. *NumericalDisc* refers to disclosures in the dedicated section for government assistance in the footnotes (e.g., the significant accounting policy section). Importantly, *NumericalDisc* is accompanied by qualitative descriptions of subsidies. In contrast, *XBRLNumericalDisc* refers to numerical XBRL tags associated with subsidies (e.g., a line item on the cash flow statement labeled government grants), which may not be supplemented with any textual description. Appendix C, Panel A provides more detailed definitions.

proposal of the standard in late 2015.¹² The increase in disclosure also means that, as per Panel B, the ratio of sample firms identified from Subsidy Tracker decreases gradually during our sample period (from around 96% to 90%). The decline in the ratio is partially due to an increase in the number of firms providing subsidy disclosures that are not covered by Good Jobs First, as shown in Column (4) of Panel A. For example, foreign subsidies or domestic subsidies undisclosed by regional government entities (state, county, or city) are unlikely to be identified by Good Jobs First, which relies on public governmental disclosures and Freedom of Information Act requests to supplement those disclosures.

Additionally, in Panels B and C, we observe an increase in the number of firms disclosing the nature and types of subsidies (*NatureTypesDisc*) as well as associated numerical values (*NumericalDisc*). By 2022, nearly half of the disclosing firms in our sample describe the nature and types of subsidies and provide their numerical values (44.8% and 46.6%, respectively), a significant increase from 2018 and 2019 (28.3% and 26.4%, respectively). The percentage of firms providing numerical values of subsidies, with or without qualitative descriptions, has consistently remained over 80% in all years (*XBRLNumericalDisc*) in Panel C. These rates are substantially higher than *NumericalDisc* in all years, indicating the extent to which numerical disclosures are not followed by qualitative information about subsidies. Nonetheless, the gap between the two, *NumericalDisc* and *XBRLNumericalDisc*, nearly halves from 2018 to 2022 in Panel C, indicating that disclosing firms increasingly provide supporting qualitative disclosures alongside subsidy values.

4.2 Material Subsidies and Potential Non-Disclosure of Material Subsidies

We next assess disclosure rates among firms receiving potentially material subsidies in Panel D of Table 2, which reports the rate of disclosures among the firms receiving at least \$1

¹² The increase may also reflect the increase in the likelihood that ASC 832 would pass. On May 14, 2019, the Investor Advisory Committee, an advisory group within the FASB, concluded that “disclosures about government assistance – specifically relating to its recurrence – would be considered useful financial information to investors.”

million in annual subsidies that are subject to disclosure under ASC 832. We find similar results when we use alternative materiality conditions, such as (i) cumulative 5-year subsidies greater than 0.5% of sales or (ii) cumulative 5-year ASC 832 subsidies greater than \$5 million (omitted for brevity).¹³ Table 2 Panel D shows that 23.6% of firms provide subsidy disclosures (Column 2) in 2022, a noticeable increase from 5.3% in 2018. In 2022, 11.2% of the firms described the nature and types of subsidies (Column 6) or numerical values (Column 7), a significant increase from nearly 0% in 2018 and 2019. Nonetheless, Panel D of Table 2 suggests that nearly 85-90% of material subsidy recipients do not provide at least some of the key information ASC 832 requires, such as the nature and type of subsidies.

Overall, the results in Table 2 present mixed evidence on the initial impact of ASC 832; while the quantity and quality of government assistance disclosures seem to have significantly improved with the introduction of ASC 832, there also appears to be substantial non-disclosure of plausibly material subsidies. We plot visualization of the temporal patterns in Figure 1. In the remainder of the paper, we explore the determinants of both withholding and disclosure, as well as potential real effects on market reactions and firm behaviors.

5. Drivers of Subsidy Information Withholding

In this section, we explore the factors driving firms' decisions to withhold information about government assistance as recorded in Subsidy Tracker. We classify a firm as withholding subsidy information if it received positive amounts of subsidies within the five preceding years that are subject to ASC 832's disclosure requirements (e.g., tax abatements and grants, but

¹³ ASC 832 does not specify materiality thresholds. The audit literature (e.g., Chung, Geiger, Paik, and Rabe 2021; Eilifsen and Messier 2015) find that, based on audit firm documentation, major accounting firms commonly set the materiality thresholds at 5% of pretax income or 0.5% of sales and assets. We adopt 0.5% of sales as around 25% of our sample firms report losses each year, making the use of a profit threshold difficult. As an alternative definition, we also consider materiality based on absolute subsidy value, using a threshold of \$1 million; we select this because it is a large enough number to affect at least the last digit of a line item in financial statements (which are typically rounded to the nearest million dollars) – and, hence, can potentially shape investor perception. We exclude tax credits from the scope of ASC 832 subsidies (see Section 2.1).

excluding income tax credits) but did not disclose any relevant information in its 10-K filing. To ensure the analysis reflects the regulatory environment following the adoption of ASC 832, we limit the sample to fiscal years 2022 and beyond.

5.1 Preliminary Determinants of Subsidy Information Withholding

We begin our analysis by identifying a preliminary set of determinants influencing information withholding, focusing on the cumulative amount of subsidies and various firm-specific characteristics. We estimate the following model:

$$InfoWithholding = \beta \times \frac{5YearSubsidy}{Assets} + \Gamma X + \sigma_{year} + \sigma_{industry} + \varepsilon \quad (1)$$

In equation (1), *InfoWithholding* is an indicator variable that equals 1 if the firm receives positive amounts of subsidies over the past five years subject to the ASC 832 mandate but did not disclose any related information in its 10-K filings. *5YearSubsidy/Assets* measures the cumulative amount of subsidies received by the firm during the past five years as a percentage of the firm's total assets. We construct this variable using multiple years of subsidy data rather than a single year, given how accounting principles are applied to subsidies. Under accrual accounting, firms are likely to recognize grant income from previous years in their current financial statements. The vector of other determinant variables *X* includes return on assets (*ROA*), logarithm of market capitalization (*Size*), book-to-market ratio (*BTM*), debt-to-asset ratio (*Leverage*), the Herfindahl-Hirschman index (*HHI*) based on 3-digit SIC code, research and development expenses scaled by total assets (*R&D*), the number of geographic and business segments (*GSeg*, *BSeg*), the logarithm of analyst coverage (*AnalystCoverage*), merger and acquisition activities (*M&A*), big four auditors (*BigFour*), stock return (*Momentum*), stock volatility (*Volatility*), and market beta (*Beta*). We draw the set of potential determinants from prior research (e.g., Huang 2022; Dong et al. 2024) and provide detailed variable definitions in Appendix C. Year-fixed effects (σ_{year}) and industry-fixed effects ($\sigma_{industry}$) are

also included to control for temporal and industry-specific factors. In estimating Equation (1), we exclude observations with missing control variables or firms lacking subsidy data from Good Jobs First.

Table 3, Panel A, presents the results from estimating Equation (1). The analysis includes four models, each incorporating different sets of determinant variables to examine how various factors correlate with firms' tendencies to disclose information about subsidies received. Column (1) includes only the magnitude of subsidies, while Column (2) adds financial and fundamental firm characteristics. Column (3) incorporates market-related variables, and Column (4) combines all variables from Columns (1) through (3).

The magnitude of subsidies received by the firm (*5YearSubsidy/Assets*) shows a strong negative association with firms' withholding of subsidy-related information (*InfoWithholding*), with coefficients significant at the 1% level in Columns (1) and (4). While ASC 832 does not explicitly allude to materiality thresholds as a necessary condition for disclosure, it is possible that some firms do not disclose information about government assistance in their 10-K filings on the grounds that they view government assistance received as immaterial. The results show that this is less likely to be the case for firms receiving larger subsidies. Economically, a one-standard-deviation increase in *5YearSubsidy/Assets* corresponds to a 1.86% reduction in the likelihood of information withholding.

Examining financial and market-based variables, we find that more profitable firms (high *ROA*) and firms facing less competition (high *HHI*) are significantly more likely to withhold subsidy information in their 10-K filings. One potential explanation for this result is that profitable firms and those with market power may prefer to downplay their reliance on government subsidies to avoid the market's discounting of subsidy-driven profits. Similarly, firms with higher research and development intensity (*R&D*) are more likely to withhold subsidy-related disclosures, possibly due to proprietary costs associated with revealing

information about subsidized activities. Conversely, firms with a greater number of geographic segments ($GSeg$) are less likely to withhold information, potentially because these firms face greater operational complexity, which necessitates more detailed disclosures.

In the remainder of this section, we explore how information withholding interacts with firms' political sensitivity, lobbying activities, and voluntary disclosure and disclosure quality. The determinants identified are retained as control variables throughout the subsequent analyses to ensure robustness and account for potential confounding factors.

5.2 Subsidy Information Withholding and Politically Sensitive Industries

Government subsidies are frequently allocated based on political considerations, particularly to bolster industries deemed strategically important. The disclosure of such subsidies may involve concerns related to national security. To explore how political sensitivity influences disclosure behavior, we construct a classification of politically sensitive industries using the Standard Industrial Classification (SIC) codes, detailed in Appendix C. *PolSensIndustry* is an indicator variable that equals 1 if the firm operates in a politically sensitive industry. We interact this variable with the magnitude of subsidies received and add these terms into the model specified in Equation (1).

The results are presented in Table 3 Panel B. Column (1) reveals that, on average, firms operating in politically sensitive industries are significantly less likely to withhold information, with the coefficient being statistically significant at the 1% level. This finding may reflect the heightened public scrutiny that pressures these firms to be more transparent. However, Columns (2) and (3) present a more nuanced picture: when firms in politically sensitive industries receive substantial subsidies, they become more likely to withhold information, reversing the baseline effect. The results suggest that to the extent that large subsidies granted to politically sensitive industries reflect greater confidentiality and national security concerns, firms' disclosure behavior may be influenced by these factors.

5.3 Subsidy Information Withholding and Lobbying Activities

Given that subsidy-related activities are often influenced by firms' political connections (e.g., Huang 2022; Dong, Raghunandan, and Rajgopal 2024), we further examine how a firm's lobbying activities, a proxy for political connections, affect its decision to withhold subsidy-related information. Specifically, we define an indicator variable, *Lobby*, which equals 1 if the firm has made any political contributions.

The results are presented in Table 3 Panel C. We first include *Lobby* into the model specified in Equation (1). Column (1) reveals that politically connected firms are less likely to withhold information about government subsidies, with the coefficient being significant at the 5% level after including control variables. However, untabulated tests indicate that firms engaging in lobbying activities are also more likely to receive subsidies, raising concerns that the observed association may be mechanical. To address this concern, we interact the magnitude of subsidies with lobbying activities in Columns (2) and (3). The coefficients on the interaction term are both negative and statistically significant at the 5% level. These findings suggest that politically connected firms are less inclined to withhold subsidy-related information, with the effect becoming more pronounced as the amount of subsidies increases. This pattern aligns with the notion that firms adjust their disclosure practices in response to politicians' preferences for subsidy transparency (Huang 2022).

5.4 Voluntary Disclosure and Disclosure Quality

We next investigate how the withholding of subsidy information relates to firms' voluntary disclosure practices and overall disclosure quality. To do so, we consider an indicator variable, *VoluntaryDiscloser*, that equals 1 for firms that voluntarily disclosed subsidies prior to ASC 832; we view such firms as those more willing to provide subsidy-specific information. Additionally, we consider whether the firm issued earnings guidance in the preceding fiscal year (*Guidance*), the average precision of the guidance (*Precision*, following Baginski and

John, 1997), and the level of disaggregation in financial data (*Disaggregation*, following Chen, Miao, and Shevlin, 2015).

We incorporate the four proxies into the model specified by Equation (1) individually and present the results in Table 3 Panel D. In Column (1), we find that firms providing voluntary disclosures about government subsidies *before* the implementation of ASC 832 are significantly less likely to withhold subsidy-related information *after* the mandates. This finding suggests consistency in firms' disclosure policies concerning government assistance. The coefficient is both statistically significant at the 1% level and economically meaningful, indicating that *pre*-regulation voluntary disclosers are 67.9% less likely to withhold information *post*-regulation. In Columns (2) and (3), we observe that both the likelihood of issuing earnings guidance and the precision of such guidance are positively associated with information withholding, with the statistical significance at the 10% level. One possible explanation is that firms providing guidance may be those with a greater incentive to divert analyst attention from scrutinizing specific earnings components, including government assistance, in light of prior work suggesting that analysts overweight management guidance vis-à-vis individual earnings components (e.g., Feng and McVay 2010). . In Column (4), we find no evidence that firms' financial disclosure quality, measured as the level of financial statement disaggregation, is associated with subsidy-related information withholding.

To summarize, while voluntary disclosure of government assistance prior to ASC 832 predicts less withholding behavior post-ASC 832, disclosure quality measures from the literature do not. This suggests that subsidy-related information captures a unique aspect of corporate transparency that is not fully reflected in conventional disclosure quality measures.

6. The Effects of ASC 832 on Subsidy Disclosure

In this section, we examine the impact of ASC 832 on firms' disclosure of subsidies, focusing on both the *existence* and *quality* of such disclosures. Disclosure-oriented accounting standards typically fulfill either or both of two primary purposes: (i) codifying and standardizing existing voluntary disclosures, or (ii) prompting the disclosure of new, decision-relevant information for financial statement users. We explore this distinction by analyzing changes in the quantity and quality of disclosures based on firms' pre-ASC 832 practices. We focus on three key firm characteristics: the amounts of subsidies received, the extent of voluntary subsidy disclosure before ASC 832 implementation, and firms' lobbying activities. Specifically, we estimate the following model:

$$\begin{aligned} SubsidyDisc = & \beta_1 PostASC + \beta_2 InteractionTerm \\ & + \beta_3 PostASC \times InteractionTerm + \Gamma X + \sigma_{industry} + \varepsilon \end{aligned} \tag{2}$$

In Equation (2), *SubsidyDisc* is an indicator variable for firms' disclosure related to government subsidies, which includes *AnySubsidyDisc* (the disclosure of any information on government subsidies), *AcctPolicyDisc* (related accounting policies), *NatureTypesDisc* (the nature/type of the subsidy), and *NumericalDisc* (numerical values of subsidies in conjunction with accounting policies and/or the nature and types). The first indicator, *AnySubsidyDisc*, captures the *existence* of disclosure at the firm level, while subsequent indicators capture various aspects of disclosure *quality*. On the right-hand side, *InteractionTerm* includes the three dimensions we focus on in this test, i.e., *5YearSubsidy/Assets*, *VoluntaryDiscloser*, and *Lobby*. In this model, we exclude year-fixed effects to explicitly document the time effects of *PostASC*, which is an indicator variable for fiscal years commencing after December 15, 2021, i.e., those subject to ASC 832.

It is important to note that, unlike in Section 5, the sample in this section includes firms that are either covered by Good Jobs First's database *or* have disclosed subsidy-related information in their 10-K filings. Additionally, we extend the sample period to encompass

fiscal years prior to the implementation of ASC 832, allowing us to analyze how disclosure practices evolved with the new standard.

6.1 Subsidy Disclosure Rates

In this section, we analyze the impact of ASC 832 on firms' disclosure rates of subsidy-related information (*AnySubsidyDisc*) and present the results in Table 4. Columns (1) and (2) focus on firms receiving large amounts of subsidies; Columns (3) and (4) examine firms that voluntarily disclosed government subsidies before the regulation; Columns (5) and (6) assess firms with stronger political connections. Across all six columns, the coefficients on *PostASC* are positive and statistically significant at the 1% level, indicating that the adoption of ASC 832 has significantly increased subsidy disclosure rates. Consistent with Section 4, this result suggests that the mandatory disclosure requirements introduced by ASC 832 enhanced transparency concerning government assistance.

Columns (1) and (2) of Table 4 indicate that the increase in subsidy disclosure rates following the implementation of ASC 832 is more pronounced among firms receiving larger amounts of subsidies, as evidenced by the significant and positive coefficients on *PostASC*5YearSubsidy/Assets*. In terms of economic magnitude, a one-standard-deviation increase in *5YearSubsidy/Assets* corresponds to a 2.47% rise in disclosure rates, or 57.45% of the sample mean. Similarly, Columns (3) and (4) report a significant and positive coefficient on *VoluntaryDiscloser* but a positive but insignificant coefficient on *PostASC*VoluntaryDiscloser*, consistent with firms providing voluntary subsidy-related disclosures before the regulation remaining consistent in their disclosure policies. This result is consistent with results documented in other mandatory disclosure settings (e.g., Belnap 2023) and highlights the standard's role as a mechanism to codify consistent disclosure. In Columns (5) and (6), contrary to Section 5, we do not find that firms with political connections exhibit greater improvement in the disclosure rates unconditionally, consistent with the notion that the

heightened political pressure only compels firms to provide more disclosure on subsidies if those subsidies are substantial.

6.2 Subsidy Disclosure Quality

We further disaggregate government subsidy disclosures along three key dimensions reflecting different aspects of disclosure quality: the discussion of related accounting policies (*AcctPolicyDisc*), the disclosure of the nature or type of the subsidy (*NatureTypesDisc*), and the disclosure of numerical subsidy amounts (*NumericalDisc*). These measures allow us to further evaluate the depth and specificity of disclosures. The results are reported in Table 5.

Panel A examines the effects of ASC 832 on firms receiving large amounts of subsidies, with results indicating an overall improvement in subsidy disclosure quality. Columns (1) through (4) show that firms receiving larger subsidies are significantly more likely to disclose related accounting policies and describe the nature or type of subsidies. However, Columns (5) and (6) reveal no corresponding increase in the disclosure of numerical subsidy amounts, suggesting that while firms enhance narrative disclosures, they remain cautious about providing precise financial details. In Panel B, we find that voluntary disclosers show significant improvements across all measures of disclosure quality after the regulation. This result underscores the reinforcing effect of ASC 832 on firms already inclined toward transparency, suggesting that the standard strengthens both the proclivity and quality of disclosures in such firms. Panel C analyzes politically connected firms, finding no meaningful improvements and even decreases in disclosure quality following ASC 832.

7. Real Effects of ASC 832 and Subsidy Disclosure

7.1 Investor Responses to ASC 832

We next examine the stock market reactions associated with subsidy disclosures.¹⁴ *Ex-ante*, the direction of the market's reaction – if any – is not obvious. If earnings are driven by government assistance rather than a firm's core operations, investors may respond less favorably due to concerns about the sustainability of such earnings (Ghosh et al. 2005). For example, the size of government assistance can easily fluctuate due to policy changes, economic conditions, and election results. On the other hand, government assistance may indicate a firm's political connections, offering long-term financial benefits and insulating the firm from potential political risks. To test this idea, we estimate the following regression:

$$\begin{aligned}
 BHAR = & \beta_1 SUE + \beta_2 SubstantialDisc + \beta_3 PostASC + \beta_4 SUE \times SubstantialDisc \\
 & + \beta_5 SubstantialDisc \times PostASC + \beta_6 PostASC \times SUE \\
 & + \beta_7 SubstantialDisc \times PostASC \times SUE + \Gamma X + \sigma_{industry} + \varepsilon
 \end{aligned} \tag{7}$$

In Equation (7), *BHAR* is the buy-and-hold abnormal return, calculated as the x-day cumulative return of the stock minus the corresponding CRSP value-weighted market return. We examine the one-month and three-month *BHAR* (approximately 20 and 60 trading days, respectively) following the announcement of annual earnings. We define *SubstantialDisc* as an indicator variable that equals to 1 if the firm discloses subsidies and the total amount of subsidies received exceeds \$5 million. This threshold ensures that the subsidy is of a sufficient magnitude to potentially influence investors' perceptions of the firm's earnings.¹⁵ *SUE* is the standardized earnings surprise, measured as in Livnat and Mendenhall (2006). Finally, we incorporate an indicator variable, *PostASC*, that equals 1 for the post-ASC 832 period, to test whether the market's perceived stock price impact of substantial subsidy disclosures changed with the passage of ASC 832.

¹⁴ We focus on medium-length time horizons, instead of short-windows, because prior literature documents that it typically takes time for investors to process and incorporate the textual information in firms' 10-K filings (Cohen et al., 2020).

¹⁵ In untabulated additional analyses, we use \$1 million as the threshold. The results remain qualitatively unchanged.

Table 7 presents the results from estimating Equation (7) using 20- and 60-day BHAR. Across Columns (1) to (4), the coefficients on *SUE* are positive and statistically significant at the 1% level, consistent with prior literature. However, Columns (1) and (3) show that the disclosure of substantial government subsidies significantly attenuates the positive market reaction to earnings surprises, as indicated by the negative coefficients on *SUE*SubstantialDisc*. These results are consistent with the stock market discounting favorable earnings surprises bundled with significant government assistance. This finding may also explain why profitable firms may prefer to withhold subsidy-related information: they may not want investors to attribute their profitability to government support, as discussed in Section 5.4.

Interestingly, the stock market's subdued reaction to earnings surprises accompanied by disclosure of substantial government assistance attenuates in the post-ASC 832 period, as suggested by the positive coefficient on *SUE*SubstantialDisc*PostASC* in Column (2). Put differently, investors' discounting of subsidy-backed earnings surprises was more severe in the pre-ASC 832 period. This finding aligns with the interpretation that investors perceive voluntary subsidy disclosures as a stronger negative sign of earnings persistence. That is, firms that voluntarily disclosed significant subsidies before ASC 832 are likely those most reliant on government assistance, raising concerns that their earnings surprises are driven more by external support than by internal operations.

We acknowledge that annual reports contain a wide range of information, making it challenging to isolate market reactions solely to subsidy disclosures. Nonetheless, our findings are informative in understanding how investors perceive earnings surprises bundled with significant subsidy disclosures and how ASC 832 may have shifted this perception.

7.2 The Real Effects on Firms' Subsidy Seeking

Our final set of tests examines the potential real effects of ASC 832 on the types of subsidies that firms seek. Subsidies can be broadly categorized into three types: (i) tax breaks

that reduce a firm's income taxes, (ii) tax breaks that do not affect a firm's income taxes (such as property tax abatements and sales tax exemptions), and (iii) cash grants. The scope of ASC 832 is largely limited to (ii) and (iii), suggesting that firms seeking to evade disclosure-induced scrutiny over their subsidies may pursue a shift from (ii) or (iii) to (i). Such shifts in the subsidy types should be more pronounced among US public firms than non-public entities, which are not subject to the disclosure mandate. To test the hypothesis, we aggregate Good Jobs First's subsidy data at the state-year-public/non-public level,¹⁶ and estimate the following model.

$$ASC832SubsidyPct =$$

$$\begin{aligned} & \beta_1 USPublic + \beta_2 PostASCEffective + \beta_3 USPublic \times PostASCEffective \\ & + \sigma_{state-year} + \varepsilon \end{aligned} \quad (5)$$

where $ASC832SubsidyPct$ is the portion of subsidy types that fall within the scope of ASC 832, such as grants, property tax abatements, and sales tax exemptions. $USPublic$ is an indicator variable that equals 1 for US public firms, and 0 for non-US firms or US private entities. $PostASCAnnounce$ ($PostASCEffective$) is an indicator variable that equals 1 for 2016 (2022) and beyond, 0 otherwise. To control for time-varying unobservable shifts in subsidy types by states, we include state-by-year fixed effects in the model.

Results from estimating Equation (4) are presented in Table 8. In Column (1), the coefficient on $USPublic * PostASCEffective$ is negative, suggesting that, after the implementation of ASC 832, US public firms obtain fewer subsidies that are subject to disclosure relative to entities that do not need to comply with ASC 832 (such as non-US firms or US private entities). Column (2) breaks down the years separately, using 2018 as the base

¹⁶ Subsidy data coverage varies substantially by state and year, as a function of the disclosures made available by state governments (which account for the vast majority of subsidies in the US). Later years of the dataset are also more likely to have coverage gaps (De Simone, Lester, and Raghunandan 2024). Aggregating Subsidy Tracker data to the state-year level, in conjunction with our fixed effects structure, alleviates the potential impact of these measurement issues in the underlying individual subsidy data. With aggregation, each data point represents aggregate subsidies obtained by US public firms vs. non-US public entities from a given state and year (i.e., there are two data points, public vs. non-public, for each state-year observation) and any variation in governmental subsidy disclosure quality should affect both public and private firms in a similar fashion.

year. Only the coefficient on 2022 interacted with *USPublic* is significantly negative, suggesting no significant pre-trends.

In Column (3), we expand the sample period to begin in 2010 to examine whether the documented shift in the subsidy types is driven by anticipation after the FASB's initial Exposure Draft in November 2015. The coefficient on *USPublic* interacted with *PostASCAnnounced*, an indicator variable that equals one in years 2016 and beyond, is insignificant, suggesting that the result we show in Columns (1) and (2) is unlikely to be driven by anticipation. Finally, in Column (4), we conduct a placebo test by replacing *USPublic* with *Foreign Public*, an indicator variable that equals one for foreign-listed firms. Foreign firms are not subject to ASC 832 and, accordingly, do not have an incentive to seek fewer subsidies that require financial statement disclosures. Column (4) indicates the absence of significant shifts in the subsidy types sought by foreign public firms in the post-ASC 832 period.

In Columns (5) to (8), we repeat the analyses in Columns (1) to (4), excluding subsidies that provide financing to firms (e.g., government loans and industrial revenue bonds). These subsidies are distinct from tax breaks involving a permanent transfer of resources to firms, as the government recoups the principal later; indeed, several comment letters submitted to the FASB suggested that these be excluded from the definition of 'government assistance'. We obtain similar results in Columns (5) to (8). Overall, Table 8 provides suggestive evidence that the introduction of ASC 832 may have affected firms' real decisions regarding the types of subsidies they seek. We caveat that our results can only provide early evidence based on a limited set of post-mandate subsidy data.

8. Conclusion

We provide early evidence on the impact of ASC 832, a new disclosure standard requiring firms to provide information about government subsidies received in their 10-K

filings. We show that firms do disclose subsidy-related information more frequently and that disclosure quality improves, perhaps due to the standard facilitating clarity about the types of information (both qualitative and quantitative) to be disclosed. Nonetheless, the impact of the standard appears to be muted, as we observe frequent non-disclosure even by firms confirmed through alternative sources to have received subsidies. The post-ASC 832 improvement in disclosure quantity and quality is strongest in firms that were already providing voluntary subsidy-specific disclosures. Finally, we also provide some evidence of a potential unintended consequence of the standard only covering certain types of subsidies; US public firms, which are subject to the mandate, appear to seek out subsidies not subject to ASC 832 disclosure requirements (e.g., income tax credits).

Collectively, our findings highlight both the potential usefulness of ASC 832 to financial statement users as well as key factors that may inhibit such usefulness. Finally, we note that while ASC 832's focus is on disclosure rather than measurement or recognition, the FASB has proposed further rules related to accounting for government grants in financial statements.¹⁷ In providing initial evidence on the impact of the disclosure standard, our study informs the ongoing FASB debate as well as potential follow-up work related to the measurement and recognition of subsidies.

¹⁷ See <https://www.fasb.org/projects/current-projects/accounting-for-government-grants-400612>.

REFERENCES

- Aobdia, Daniel, Allison Koester, and Reining Petacchi. "Political Connections and the Effectiveness of US State Government Resource Allocation." *The Journal of Law and Economics* 67.3 (2024): 639-689.
- Baginski, Stephen P., and John M. Hassell. "Determinants of management forecast precision." *The Accounting Review* (1997): 303-312.
- Belnap, Andrew. "The effect of intermediary coverage on disclosure: Evidence from a randomized field experiment." *Journal of Accounting and Economics* 75.1 (2023): 101522.
- Beyer, Anne, Daniel A. Cohen, Thomas Z. Lys, and Beverly R. Walther. "The financial reporting environment: Review of the recent literature." *Journal of Accounting and Economics* 50, no. 2-3 (2010): 296-343.
- Bhattacharya, Nilabhra, Young Jun Cho, and Jae B. Kim. "Leveling the playing field between large and small institutions: Evidence from the SEC's XBRL mandate." *The Accounting Review* 93, no. 5 (2018): 51-71.
- Blankespoor, Elizabeth. "The impact of information processing costs on firm disclosure choice: Evidence from the XBRL mandate." *Journal of Accounting Research* 57, no. 4 (2019): 919-967.
- Blankespoor, Elizabeth, Brian P. Miller, and Hal D. White. "Initial evidence on the market impact of the XBRL mandate." *Review of Accounting Studies* 19 (2014): 1468-1503.
- Bushee, Brian J., Dawn A. Matsumoto, and Gregory S. Miller. "Managerial and investor responses to disclosure regulation: The case of Reg FD and conference calls." *The Accounting Review* 79, no. 3 (2004): 617-643.
- Chen, Shuping, Bin Miao, and Terry Shevlin. "A new measure of disclosure quality: The level of disaggregation of accounting data in annual reports." *Journal of Accounting Research* 53, no. 5 (2015): 1017-1054.
- Chen, Xi, Yang Ha Cho, Yiwei Dou, and Baruch Lev. "Predicting future earnings changes using machine learning and detailed financial data." *Journal of Accounting Research* 60, no. 2 (2022): 467-515.
- Chen, Zhihong, Dan S. Dhaliwal, and Hong Xie. "Regulation fair disclosure and the cost of equity capital." *Review of Accounting Studies* 15 (2010): 106-144.
- Cohen, Lauren, Christopher Malloy, and Quoc Nguyen. "Lazy prices." *The Journal of Finance* 75.3 (2020): 1371-1415.
- Criscuolo, Chiara, Ralf Martin, Henry G. Overman, and John Van Reenen. "Some causal effects of an industrial policy." *American Economic Review* 109, no. 1 (2019): 48-85.
- Chung, Philip Keunho, Marshall A. Geiger, Gyung H. Paik, and Collin Rabe. "Materiality thresholds: empirical evidence from change in accounting estimate disclosures." *Accounting Horizons* 35, no. 3 (2021): 113-141.
- De Simone, Lisa, Rebecca Lester, and Aneesh Raghunandan. "Tax subsidy disclosure and local economic effects." *Journal of Accounting Research* (2024).
- Debreceny, Roger, Stephanie Farewell, Maciej Piechocki, Carsten Felden, and André Gräning. "Does it add up? Early evidence on the data quality of XBRL filings to the SEC." *Journal of Accounting and Public Policy* 29, no. 3 (2010): 296-306.
- DeHaven, Tad. "Corporate welfare in the federal budget." *Cato Institute Policy Analysis* 703 (2012).
- Dong, Qingkai, Aneesh Raghunandan, and Shivaram Rajgopal. "When do firms deliver on the jobs they promise in return for state aid?" *Review of Accounting Studies* (2023): 1-46.
- Dong, Yi, Oliver Zhen Li, Yupeng Lin, and Chenkai Ni. "Does information-processing cost affect firm-specific information acquisition? Evidence from XBRL adoption." *Journal of Financial and Quantitative Analysis* 51, no. 2 (2016): 435-462.
- Drake, Katharine D., Nathan C. Goldman, Stephen J. Lusch, and Jaime J. Schmidt. "Disclosure of tax-related critical audit matters and tax-related outcomes." *Contemporary Accounting Research* 41, no. 2 (2024): 719-747.
- Eilifsen, Aasmund, and William F. Messier Jr. "Materiality guidance of the major public accounting firms." *Auditing: A Journal of Practice & Theory* 34, no. 2 (2015): 3-26.

- Feng, Mei, and Sarah McVay. "Analysts' incentives to overweight management guidance when revising their short-term earnings forecasts." *The Accounting Review* 85.5 (2010): 1617-1646.
- Ferri, Fabrizio, Ronghuo Zheng, and Yuan Zou. "Uncertainty about managers' reporting objectives and investors' response to earnings reports: Evidence from the 2006 executive compensation disclosures." *Journal of Accounting and Economics* 66.2-3 (2018): 339-365.
- Ghosh, Aloke, Zhaoyang Gu, and Prem C. Jain. "Sustained earnings and revenue growth, earnings quality, and earnings response coefficients." *Review of Accounting Studies* 10 (2005): 33-57.
- Hess, Ryan V., and Lillian F. Mills. "Government Assistance: A Growing, Underdisclosed Financing Source." *Accounting Horizons* (2024): 1-25.
- Hoitash, Rani, Udi Hoitash, and Landi Morris. "eXtensible business reporting language (XBRL): A review and implications for future research." *Auditing: A Journal of Practice & Theory* 40, no. 2 (2021): 107-132.
- Howell, Sabrina T. "Financing innovation: Evidence from R&D grants." *American Economic Review* 107, no. 4 (2017): 1136-1164.
- Huang, Ying. "Government subsidies and corporate disclosure." *Journal of Accounting and Economics* 74, no. 1 (2022): 101480.
- Jain, Pankaj K., and Zabihollah Rezaee. "The Sarbanes-Oxley Act of 2002 and capital-market behavior: Early evidence." *Contemporary Accounting Research* 23, no. 3 (2006): 629-654.
- Kothari, Sabino P., Susan Shu, and Peter D. Wysocki. "Do managers withhold bad news?." *Journal of Accounting research* 47, no. 1 (2009): 241-276.
- Li, Haidan, Morton Pincus, and Sonja Olhoff Rego. "Market reaction to events surrounding the Sarbanes-Oxley Act of 2002 and earnings management." *The Journal of Law and Economics* 51, no. 1 (2008): 111-134.
- Livnat, Joshua, and Richard R. Mendenhall. "Comparing the post-earnings announcement drift for surprises calculated from analyst and time series forecasts." *Journal of Accounting Research* 44.1 (2006): 177-205.
- Mast, Evan. "Race to the bottom? Local tax break competition and business location." *American Economic Journal: Applied Economics* 12, no. 1 (2020): 288-317.
- Pappas, Kostas, Martin Walker, Alice Liang Xu, and Cheng Zeng. "Government subsidies and income smoothing." *Contemporary Accounting Research* (2024).
- Raghunandan, Aneesh. "Government subsidies and corporate misconduct." *Journal of Accounting Research* (2024).
- Slattery, Cailin, and Owen Zidar. "Evaluating state and local business incentives." *Journal of Economic Perspectives* 34, no. 2 (2020): 90-118.
- Zhang, Ivy Xiying. "Economic consequences of the Sarbanes–Oxley Act of 2002." *Journal of Accounting and Economics* 44, no. 1-2 (2007)

APPENDIX A: XBRL Example

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

► Government Incentives

We receive incentives from U.S. and non-U.S. governmental entities in the form of tax rebates or credits, grants, and loans. Government incentives are recorded in our consolidated financial statements in accordance with their purpose as a reduction of expense or other income. The benefit is generally recorded when all conditions attached to the incentive have been met and there is reasonable assurance of receipt. Government incentives related to capital investment are recognized in *Net Property* as a reduction to the net book value of the related asset. The incentives are recognized over the life of the asset as a reduction to depreciation and amortization expense.

During 2022, we were awarded incentives by the State of Tennessee related to land, capital, and property tax abatements in connection with Ford's capital investment in our new electric vehicle assembly plant and job commitments. These incentives are available until December 2051. The fair value of the land benefit in 2022 was \$**144** million and was recorded in *Net Property* fully offset by the value of the incentive. A capital grant of \$**285** million is expected to be received in 2023 and will reduce the depreciation and amortization expense over the life of the related assets.

In 2022, we were also awarded incentives by the Canadian government and Province of Ontario in connection with the development of electric vehicles at our Oakville Assembly Plant. Equipment, tooling, and labor incentives of C\$**590** million are expected to be received over the terms of the agreements beginning in 2024 through 2033 and will be recognized as a reduction of the related expenses.

Ford may also indirectly benefit from incentives and grants awarded to companies with which we are affiliated but are not included in our consolidated financial statements.

Ford's receipt of government incentives could be subject to reduction, termination, or claw back. Claw back provisions are monitored for ongoing compliance and are accrued for when losses are deemed probable and estimable (see Note 25).

Selected Other Costs

- Engineering, research, and development expenses are reported in *Cost of sales* and primarily consist of salaries, materials, and associated costs. Engineering, research, and development costs are expensed as incurred when performed internally or when performed by a supplier if we guarantee reimbursement. Advertising costs are reported in *Selling, administrative, and other expenses* and are expensed as incurred. Engineering, research, development, and advertising expenses for the years ended December 31 were as follows (in billions):

This figure shows a screenshot of Ford Motors' 10-K for fiscal year 2022, filed on February 3, 2023. The highlighted areas pertain to the XBRL-tagged information explicitly related to government assistance. They are tagged "Government Assistance [Policy Text Block]," "Government Assistance, Amount, Cumulative," and "Government Assistance, Statement of Financial Position [Extensible Enumeration]." We use these XBRL tags as part of our effort to extract relevant information related to government subsidies.

However, like Ford, many firms do not tag all the paragraphs under the "government incentives" (or other equivalents) section as the text block related government assistance. This observation motivates us to identify all the texts under the XBRL tag of "Significant Accounting Policies [Text Block]" to extract supplementary textual information on government subsidies.

APPENDIX B: Examples of Firms' Disclosures About Government Subsidies

In this section, we provide five examples of 10-K disclosures to illustrate how disclosure practices evolved with the adoption of ASC 832.

Example 1. Ford Motor

In the pre-ASC 832 period (FY 2019), Ford stated that governmental incentives may affect its financial statements without providing any information about the specific financial statement impact. In FY 2022, the first year ASC 832 went into effect, the company started providing detailed information about subsidies, specifying financial statement line-item impacts.

FY 2022 Government Incentives

We receive incentives from U.S. and non-U.S. governmental entities in the form of tax rebates or credits, grants, and loans. Government incentives are recorded in our consolidated financial statements in accordance with their purpose as a reduction of expense or other income. The benefit is generally recorded when all conditions attached to the incentive have been met and there is reasonable assurance of receipt. Government incentives related to capital investment are recognized in Net Property as a reduction to the net book value of the related asset. The incentives are recognized over the life of the asset as a reduction to depreciation and amortization expense.

During 2022, we were awarded incentives by the State of Tennessee related to land, capital, and property tax abatements in connection with Ford's capital investment in our new electric vehicle assembly plant and job commitments. These incentives are available until December 2051. The fair value of the land benefit in 2022 was \$144 million and was recorded in Net Property fully offset by the value of the incentive. A capital grant of \$285 million is expected to be received in 2023 and will reduce the depreciation and amortization expense over the life of the related assets.

In 2022, we were also awarded incentives by the Canadian government and Province of Ontario in connection with the development of electric vehicles at our Oakville Assembly Plant. Equipment, tooling, and labor incentives of C\$590 million are expected to be received over the terms of the agreements beginning in 2024 through 2033 and will be recognized as a reduction of the related expenses.

FY 2021 ACCOUNTING STANDARDS ISSUED BUT NOT YET ADOPTED

The Financial Accounting Standards Board ("FASB") has issued the following Accounting Standards Updates ("ASU") which are not expected to have a material impact to our financial statements or financial statement disclosures. For additional information, see Note 3 of the Notes to the Financial Statements.

ASU 2021-10 Government Assistance: Disclosures by Business Entities about Government Assistance

FY 2020 Government Incentives

We receive incentives from U.S. and non-U.S. governmental entities in the form of tax rebates or credits, grants, and loans. Government incentives are recorded in our consolidated financial statements in accordance with their purpose as a reduction of expense, a reduction of the cost of the capital investment, or other income. The benefit is generally recorded when all conditions attached to the incentive have been met and there is reasonable assurance of receipt.

Example 2. Boeing

While Ford Motors (discussed as Example 1) provided at least qualitative disclosure about government assistance in the pre-ASC 832 period, we found no such information in Boeing's 10-Ks. In FY 2022, Boeing began disclosing information about government assistance.

FY 2022 Government Assistance

In 2022, we adopted Accounting Standards Update (ASU) 2021-10, Government Assistance (Topic 832), which requires certain disclosures for those government assistance transactions for which we have applied a grant accounting model. Certain states and localities in which we operate offer or have offered various business incentives related to investment and/or job creation.

Between 2010 and 2016, we received cash grants totaling \$346 related to our investment in operations in South Carolina. The grants were recorded in Other liabilities and are being amortized, primarily to inventory, over the useful life of the Property, plant and equipment extending through 2052. During 2022, we amortized \$11 to Inventory, and recorded a benefit of \$5 in Cost of Sales. At December, 31, 2022, inventory included a benefit of \$64 and Accrued liabilities included a balance of \$106.

Industrial Revenue Bonds (IRB) issued by St. Louis County were used to finance the purchase and/or construction of real and personal property at our St. Louis site. Tax benefits associated with IRBs include a twelve-year property tax abatement and sales tax exemption from St. Louis County. We record these properties on our Consolidated Statements of Financial Position. We have also purchased the IRBs and therefore are the bondholders as well as the borrower/lessee of the properties purchased with the IRB proceeds. The liabilities and IRB assets are equal and are reported net in the Consolidated Statements of Financial Position. As of December 31, 2022 and 2021, the assets and liabilities associated with the IRBs were \$271.

FY 2021 No information.

FY 2020 No information.

Example 3 (Immaterial Disclosure). Meta Platforms

Meta Platforms (formerly Facebook) stated in its FY 2021 10-K that it is evaluating the impact of ASC 832 on its financial statement. In FY 2022, the firm did not disclose any information about government assistance other than that ASC 832 had no material impact on its financial statements. According to the Subsidy Tracker, Meta obtained multi-million dollars of subsidy packages from various states over the past five years, including Georgia (\$355 million in 2020), Nebraska (\$192.3 million in 2022), and Illinois (\$80 million in 2021). The Subsidy Tracker reports that Meta attained a \$687.6 million deal from Texas in 2023, but the firm still does not disclose the financial statement impact in its FY 2023 10-K.

FY 2022 Recently Adopted Accounting Pronouncements

On October 1, 2022, we adopted ASU No. 2021-10, Government Assistance (Topic 832): Disclosure by Business Entities about Government Assistance (ASU 2021-10), which improves the transparency of government assistance received by most business entities by requiring annual disclosures of: (1) the types of government assistance received; (2) the accounting for such assistance; and (3) the effect of the assistance on a business entity's financial statements. **The adoption of this new standard did not have a material impact on our consolidated financial statements.**

FY 2021 Accounting Pronouncements Not Yet Adopted

In November 2021, the FASB issued ASU No. 2021-10, *Government Assistance (Topic 832): Disclosure by Business Entities about Government Assistance* (ASU 2021-10), which improves the transparency of government assistance received by most business entities by requiring the disclosure of: (1) the types of government assistance received; (2) the accounting for such assistance; and (3) the effect of the assistance on a business entity's financial statements. This guidance will be effective for us in the year ended December 31, 2022, with early adoption permitted. **We are currently evaluating the impact of the new guidance on our consolidated financial statements.**

FY 2020 No information.

Example 4 (Non-Disclosure). Amazon.com

We found no mention of government subsidies in Amazon's FY 2022 10-K filing despite Amazon receiving (at least) \$2.8 billion in new subsidies in 2022 alone and \$5.6 billion over the preceding five years, according to Subsidy Tracker.

FY 2022 No information.

FY 2021 No information.

FY 2020 No information.

Example 5. Tesla

Before the adoption of ASC 832, Tesla provided qualitative information on government assistance, as reflected in the FY 2020 excerpt below. Even after the adoption of ASC 832, the company continues to omit the financial impact of certain significant subsidy programs. For example, its FY 2022 10-K does not disclose the dollar amounts of subsidies related to Gigafactory New York or Gigafactory. However, there has been some progress in the numerical reporting of subsidies, as shown by the disclosure of the grant amounts for Gigafactory Shanghai in FY 2022, which were absent in FY 2021.

FY 2022 Note . Summary of Significant Accounting Policies

Government Assistance Programs and Incentives

Globally, the operation of our business is impacted by various government programs, incentives, and other arrangements. Government incentives are recorded in our consolidated financial statements in accordance with their purpose as a reduction of expense, or an offset to the related capital asset. The benefit is generally recorded when all conditions attached to the incentive have been met or are expected to be met and there is reasonable assurance of their receipt. The government incentives received by us are immaterial in all periods presented since the adoption of ASU 2021-10.

Gigafactory New York—New York State Investment and Lease

We have a lease through the Research Foundation for the SUNY Foundation with respect to Gigafactory New York. Under the lease and a related research and development agreement, we are continuing to designate further buildouts at the facility. We are required to comply with certain covenants, including hiring and cumulative investment targets. Under the terms of the arrangement, the SUNY Foundation paid for a majority of the construction costs related to the manufacturing facility and the acquisition and commissioning of certain manufacturing equipment; and we are responsible for any construction or equipment costs in excess of such amount (refer to Note 15, *Commitments and Contingencies*). This incentive reduces the related

lease costs of the facility within the Energy generation and storage cost of revenues and operating expense line items in our consolidated statements of operations.

Gigafactory Shanghai—Land Use Rights and Economic Benefits

We have an agreement with the local government of Shanghai for land use rights at Gigafactory Shanghai. Under the terms of the arrangement, we are required to meet a cumulative capital expenditure target and an annual tax revenue target starting at the end of 2023. In addition, the Shanghai government has granted to our Gigafactory Shanghai subsidiary certain incentives to be used in connection with eligible capital investments at Gigafactory Shanghai (refer to Note 15, *Commitments and Contingencies*). For the years ended December 31, 2022 and 2021, we received grant funding of \$76 million and \$6 million, respectively. These incentives offset the related costs of our facilities and are recorded as a reduction of the cost of the capital investment within the Property, plant and equipment, net line item in our consolidated balance sheets. The incentive therefore reduces the depreciation expense over the useful lives of the related equipment.

Nevada Tax Incentives

In connection with the construction of Gigafactory Nevada, we entered into agreements with the State of Nevada and Storey County in Nevada that provide abatements for specified taxes, discounts to the base tariff energy rates and transferable tax credits of up to \$195 million in consideration of capital investment and hiring targets that were met at Gigafactory Nevada.

... (other incentive programs are provided in the 10-K but omitted for brevity)

FY 2021 Note 2. Summary of Significant Accounting Policies

Recent Accounting Pronouncements

In November 2021, the FASB issued ASU No. 2021-10, Government Assistance (Topic 832). This ASU requires business entities to disclose information about government assistance they receive if the transactions were accounted for by analogy to either a grant or a contribution accounting model. The disclosure requirements include the nature of the transaction and the related accounting policy used, the line items on the balance sheets and statements of operations that are affected and the amounts applicable to each financial statement line item and the significant terms and conditions of the transactions. The ASU is effective for annual periods beginning after December 15, 2021. The disclosure requirements can be applied either retrospectively or prospectively to all transactions in the scope of the amendments that are reflected in the financial statements at the date of initial application and new transactions that are entered into after the date of initial application. The ASU is currently not expected to have a material impact on our consolidated financial statements.

Solar Renewable Energy Credits

We account for Solar Renewable Energy Certificates (“SRECs”) when they are purchased by us or sold to third parties. For SRECs generated by solar energy systems owned by us and minted by government agencies, we do not recognize any specifically identifiable costs as there are no specific incremental costs incurred to generate the SRECs. We recognize revenue within the energy generation and storage segment from the sale of an SREC when the SREC is transferred to the buyer, and the cost of the SREC, if any, is then recorded to energy generation and storage cost of revenue.

Nevada Tax Incentives

In connection with the construction of Gigafactory Nevada, we entered into agreements with the State of Nevada and Storey County in Nevada that provide abatements for specified taxes, discounts to the base tariff energy rates and transferable tax credits of up to \$195 million in consideration of capital investment and hiring targets that were met at Gigafactory Nevada. These incentives are available until June 2024 or June 2034, depending on the incentive. As of December 31, 2021 and 2020, we had earned the maximum of \$195 million of transferable tax credits under these agreements.

... (other incentive programs are provided in the 10-K but omitted for brevity)

FY 2020 Note 2. Summary of Significant Accounting Policies

Solar Renewable Energy Credits

We account for Solar Renewable Energy Certificates (“SRECs”) when they are purchased by us or sold to third parties. For SRECs generated by solar energy systems owned by us and minted by government agencies, we do not recognize any specifically identifiable costs as there are no specific incremental costs incurred to generate the SRECs. We recognize revenue within the energy generation and storage segment from the sale of an SREC when the SREC is transferred to the buyer, and the cost of the SREC, if any, is then recorded to energy generation and storage cost of revenue.

Nevada Tax Incentives

In connection with the construction of Gigafactory Nevada, we entered into agreements with the State of Nevada and Storey County in Nevada that provide abatements for specified taxes, discounts to the base tariff energy rates and transferable tax credits of up to \$195.0 million in consideration of capital investment and hiring targets that were met at Gigafactory Nevada. These incentives are available until June 2024 or June 2034, depending on the incentive. As of December 31, 2020 and 2019, we had earned the maximum of \$195 million of transferable tax credits under these agreements.

... (other incentive programs are provided in the 10-K but omitted for brevity)

Item 1. Business

Programs and Incentives

California Alternative Energy and Advanced Transportation Financing Authority Tax Incentives

We have agreements with the California Alternative Energy and Advanced Transportation Financing Authority that provide multi-year sales tax exclusions on purchases of manufacturing equipment that will be used for specific purposes, including the expansion and ongoing development of electric vehicles and powertrain production in California.

... (other incentive programs are provided in the 10-K but omitted for brevity)

APPENDIX C: Variable Definitions and the List of Politically Sensitive Industries

Panel A. Variable Definitions

Variables	Date Source	Variable Definition
Panel A: Subsidy Disclosures		
<i>AnySubsidy Disc</i>	EDGAR	An indicator variable that equals to 1 if the firm provides any disclosures about government assistance on the 10-Ks, 0 otherwise. These disclosures are provided in the significant accounting policy section or other dedicated sections for government assistance disclosures in the footnotes. Some firms disclose subsidies in their financial statements without providing any supplementary description in the footnotes.
<i>Immaterial Disc</i>	EDGAR	1 if the firm explicitly states that government assistance or ASU 2021-10 does not have a material impact on its financial statements, 0 otherwise.
<i>COVID Disc</i>	EDGAR	An indicator variable that equals to 1 if the provided government disclosure relates to COVID-19-related subsidies (e.g., CARES Act), 0 otherwise.
<i>AcctPolicy Disc</i>	EDGAR	An indicator variable that equals to 1 if the firm provides how government assistance is accounted for, 0 otherwise.
<i>NatureTypes Disc</i>	EDGAR	An indicator variable that equals to 1 if the firm discusses specifics about the types of government assistance being provided (e.g., grants, loans, etc.) and the nature (e.g., job creation, plant building, etc.), 0 otherwise.
<i>USSubsidy Disc</i>	EDGAR	An indicator variable that equals to 1 if the firm specifies that the assistance is provided by US government entities, 0 otherwise.
<i>ForeignSubsidy Disc</i>	EDGAR	An indicator variable that equals to 1 if the firm specifies that the assistance is provided by foreign government entities, 0 otherwise.
<i>Numerical Disc</i>	EDGAR	An indicator variable that equals to 1 if numerical values of government assistance are provided in the significant accounting policy section or other dedicated sections for government assistance, 0 otherwise.
<i>XBRL Numerical Disc</i>	EDGAR	An indicator variable that equals to 1 if the firm provides XBRL tags of the numerical value of subsidies (may not be accompanied by any discussion of accounting policies or the nature and types of subsidies), 0 otherwise.
<i>Voluntary Discloser</i>	EDGAR	An indicator variable that equals to 1 if the firm has voluntarily disclosed subsidy-related information in at least one fiscal year before ASC 832 was enacted
<i>PostASC</i>	EDGAR	An indicator variable for the 10-Ks filed for the fiscal years after 2022 (including 2022)
<i>5YearSubsidy/As sets</i>	Subsidy Tracker	The five-year cumulative amount of subsidies granted by the government, scaled by the firm's total assets
<i>InfoWithholding</i>	Subsidy Tracker & EDGAR	An indicator variable that equals to 1 if the firm receives positive amounts of subsidies in the past five years subject to the scope of the ASC 832 mandate while not disclosing any related information in their 10-Ks
<i>Substantial Disc</i>	Subsidy Tracker	An indicator variable that equals to 1 if the firm discloses the subsidies and the amount of subsidies is greater than 5 million
Panel B: Other Variables		
<i>Size</i>	Compustat	The natural logarithm of price per share \times # shares outstanding.
<i>BTM</i>	Compustat	The book value of equity scaled by the market value of equity.
<i>ROA</i>	Compustat	The net income scaled by average total assets in the current and previous years.
<i>Leverage</i>	Compustat	The total debt scaled by the total assets.
<i>HHI</i>	Compustat	The Herfindahl-Hirschman index, measured as the sum of squared market share of all firms in each 3-digit SIC industry.
<i>GSeg</i>	Compustat	The number of geographical segments.
<i>Bseg</i>	Compustat	The number of business segments.
<i>R&D</i>	Compustat	The research and development expenditures scaled by total assets.
<i>BigFour</i>	Compustat	An indicator variable that equals to 1 if a firm is audited by a Big 4 auditor, and 0 otherwise.

<i>M&A</i>	Compustat	An indicator variable that equals to 1 if a firm's acquisition–sale contribution divided by sales is greater than 1% or its value of acquisitions divided by total assets is greater than 2%, and 0 otherwise.
<i>Momentum</i>	CRSP	Cumulative stock returns adjusted for the CRSP value-weighted returns in the most recent 12 months prior to the firm's fiscal year end.
<i>Volatility</i>	CRSP	The standard deviation market-adjusted of month stock returns in the most recent 12 months prior to the firm's fiscal year end.
<i>Beta</i>	CRSP	Market beta measured using the market model with 60 months of data prior to the firm's fiscal year end. (with a minimum of 36 months)
<i>Analyst Coverage</i>	I/B/E/S	Natural logarithm of 1 plus the number of analysts covering the firm during the firm-quarter (0 if missing).
<i>BHAR(xM)</i>	CRSP	The x-month buy-and-hold abnormal return calculated as the x-month cumulative return of the stock minus that of the CRSP value-weight market return
<i>SUE</i>	I/B/E/S	The difference between the actual EPS and the analysts' consensus forecast, divided by the closing price of the current fiscal year
<i>Lobby</i>	NIMSP	An indicator variable that equals one if the firm makes any political contributions in the current year
<i>PolSensIndustry</i>	Compustat	An indicator variable that equals 1 if the firm is within a politically sensitive industry, as defined in Appendix C
<i>Disaggregation</i>	Compustat	The level of disaggregation of accounting data through a count of nonmissing Compustat line items (Chen, Miao, and Shevlin, 2015)
<i>Guidance</i>	I/B/E/S	An indicator variable that equals 1 if the firm provides earnings guidance in the current year
<i>Precision</i>	I/B/E/S	The average precision of earnings guidance in the current year, where the guidance precision is 3 for point guidance, 2 for closed-interval guidance, 1 for open-interval guidance, and 0 for no forecasts (Baginski and John, 1997)

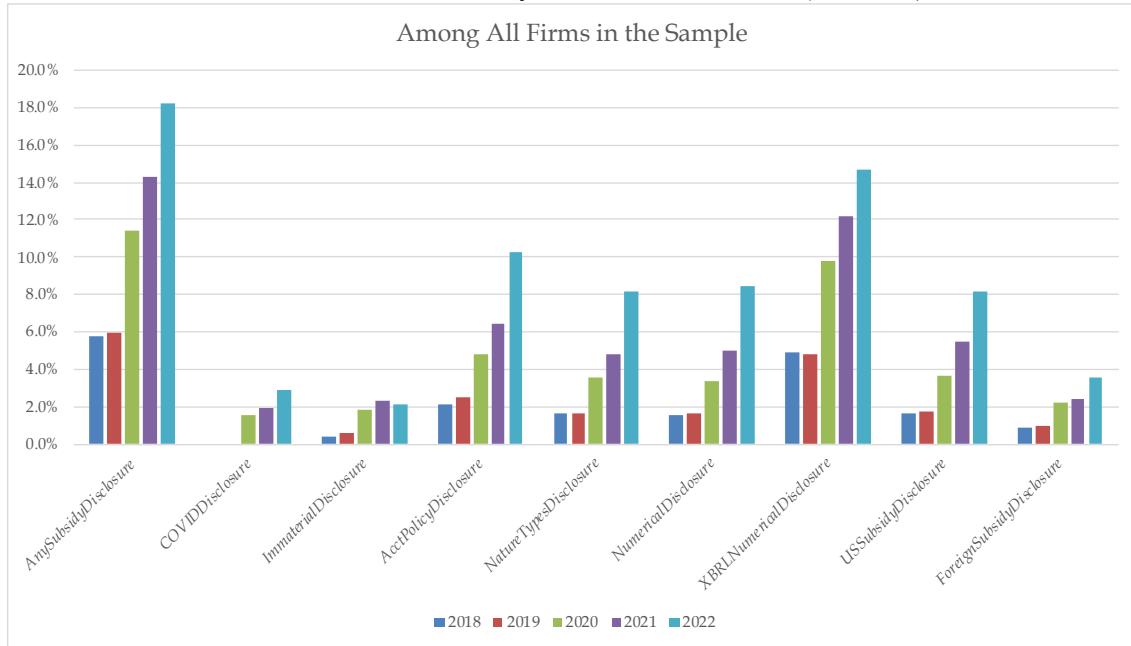
Panel B. The List of Politically Sensitive Industries

SIC Code	Industry	Description
3711	Automotive	Motor Vehicles and Passenger Car Bodies
3714	Automotive	Motor Vehicle Parts and Accessories
3721	Defense and Aerospace	Aircraft
3728	Defense and Aerospace	Aircraft Parts and Auxiliary Equipment, Not Elsewhere Classified
3761	Defense and Aerospace	Guided Missiles and Space Vehicles
3769	Defense and Aerospace	Guided Missile and Space Vehicle Parts and Auxiliary Equipment, Not Elsewhere Classified
1311	Energy (Oil and Gas)	Crude Petroleum and Natural Gas
1389	Energy (Oil and Gas)	Oil and Gas Field Services, Not Elsewhere Classified
4812	Telecommunications	Radiotelephone Communications
4813	Telecommunications	Telephone Communications, Except Radiotelephone
6021	Banking and Finance	National Commercial Banks
6211	Banking and Finance	Security Brokers, Dealers, and Flotation Companies
2834	Healthcare and Pharmaceuticals	Pharmaceutical Preparations
8062	Healthcare and Pharmaceuticals	General Medical and Surgical Hospitals
4911	Utilities	Electric Services
4922	Utilities	Natural Gas Transmission
4011	Transportation	Railroads, Line-Haul Operating
4512	Transportation	Air Transportation, Scheduled

Figure 1. Disclosure Rates of Government Assistance (2018-2022)

This figure plots disclosure rates of government assistance from 2018 to 2022, providing a visualization of the numbers presented in Table 2. We refer the reader to Appendix C for variable definitions. Panel A presents disclosure rates for all firms in our sample; Panel B focuses on the firms that received plausibly material subsidies.

Panel A. Disclosure Rates of Government Assistance (All Firms)



Panel B. Disclosure Rates of Government Assistance Among Material Subsidy Recipients (Annual ASC 832 Subsidy > \$ 1 million)

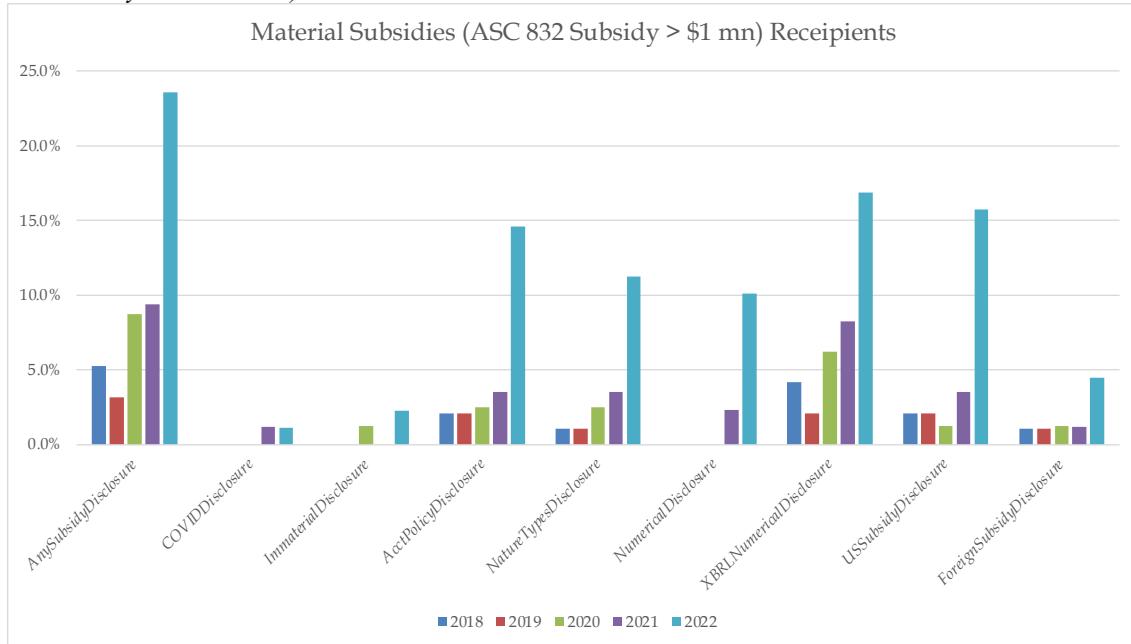


Table 1. Summary Statistics and Correlations

This table presents summary statistics for variables used in our regression-based tests. Our sample includes firms tracked by Good Jobs First's Subsidy Tracker and firms that are not followed by Good Jobs First but disclose government assistance in their 10-Ks. Panel A reports summary statistics, while Panel B presents Pearson correlations.

	Panel A. Summary Statistics					
	N	Mean	SD	Min	Median	Max
<i>AnySubsidyDisc</i>	9057	.111	0.315	0	0	1
<i>AcctPolicyDisc</i>	9057	.053	0.223	0	0	1
<i>NatureTypesDisc</i>	9057	.04	0.195	0	0	1
<i>NumericalDisc</i>	9057	.04	0.196	0	0	1
<i>5YearSubsidy/Assets</i>	8409	.001	0.009	0	0	.382
<i>ROA</i>	9057	.009	0.174	-1.443	.032	.349
<i>MarketCap</i>	9057	14493.405	27621.567	6.217	3417.634	128784.54
<i>Size (Log(MarketCap))</i>	9057	8.084	1.958	1.827	8.137	11.766
<i>BTM</i>	9047	.541	0.613	-1.398	.421	4.085
<i>Leverage</i>	8844	.328	0.236	0	.308	1.186
<i>HHI</i>	9057	2.816	2.567	.169	1.999	13.883
<i>R&D</i>	9057	.035	0.100	0	0	1.109
<i>BSeg</i>	9057	2.997	2.626	1	2	14
<i>GSeg</i>	9057	2.635	1.870	1	2	8
<i>AnalystCoverage</i>	8952	2.108	0.780	0	2.197	3.466
<i>M&A</i>	9057	.203	0.402	0	0	1
<i>BigFour</i>	9057	.84	0.366	0	1	1
<i>Momentum</i>	8917	.012	0.417	-1.574	0	1.572
<i>Volatility</i>	8917	.106	0.073	.021	.083	.491
<i>Beta</i>	8940	1.231	0.643	-.512	1.156	3.498
<i>Lobby</i>	9057	.246	0.431	0	0	1
<i>PolSensIndustry</i>	9057	.118	0.322	0	0	1
<i>VoluntaryDiscloser</i>	9057	.121	0.326	0	0	1
<i>Disaggregation</i>	9037	.839	0.121	.351	.881	.972
<i>Guidance</i>	9057	.298	0.457	0	0	1
<i>Precision</i>	9057	.611	0.950	0	0	3
<i>SUE</i>	6721	0	0.023	-.191	.001	.106
<i>BHAR(1M)</i>	9027	-.012	0.135	-.462	-.009	.533
<i>BHAR(3M)</i>	8977	-.024	0.222	-.675	-.026	1.022

Panel B. Correlation Matrix of the Main and Control Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1) <i>AnySubsidyDisc</i>	1.00															
(2) <i>5YearSubsidy/Assets</i>	0.06***	1.00														
(3) <i>ROA</i>	-0.03*	-0.07***	1.00													
(4) <i>Size</i>	0.00	-0.01	0.34***	1.00												
(5) <i>BTM</i>	-0.03*	-0.02	-0.12***	-0.29***	1.00											
(6) <i>Leverage</i>	0.04***	0.03*	-0.14***	0.02	-0.25***	1.00										
(7) <i>HHI</i>	0.02	-0.03*	0.08***	-0.04***	-0.05***	0.06***	1.00									
(8) <i>R&D</i>	0.02	0.09***	-0.46***	-0.07***	-0.16***	-0.04***	-0.16***	1.00								
(9) <i>BSeg</i>	0.06***	0.04***	0.05***	0.16***	-0.06***	-0.02	0.05***	0.07***	1.00							
(10) <i>GSeg</i>	0.04***	-0.01	0.05***	0.14***	0.04***	-0.02	0.05***	-0.12***	0.11***	1.00						
(11) <i>AnalystCoverage</i>	0.03*	0.01	0.14***	0.69***	-0.22***	0.12***	-0.05***	0.03**	0.11***	0.06***	1.00					
(12) <i>M&A</i>	-0.01	-0.01	0.09***	0.07***	-0.08***	0.04***	0.05***	-0.01	0.07***	0.07***	0.06***	1.00				
(13) <i>BigFour</i>	0.03**	0.01	0.08***	0.37***	-0.11***	0.17***	0.04***	0.01	0.13***	0.09***	0.33***	0.03**	1.00			
(14) <i>Momentum</i>	0.03*	-0.00	0.21***	0.16***	-0.21***	-0.03**	0.01	-0.03**	-0.01	-0.01	0.03*	-0.00	0.00	1.00		
(15) <i>Volatility</i>	0.06***	0.07***	-0.40***	-0.45***	0.10***	0.19***	0.02	0.19***	-0.03**	-0.12***	-0.22***	-0.09***	-0.10***	0.21***	1.00	
(16) <i>Beta</i>	0.04**	0.02	-0.19***	-0.24***	0.14***	0.16***	0.01	0.06***	0.09***	-0.01	-0.02	-0.03*	0.02	0.11***	0.49***	1.00

Table 2. Sample Construction and Descriptive Statistics on Disclosure

This table reports descriptive statistics on subsidy-related disclosures. Panel A presents, by year, the number of firms identified as subsidy recipients in Subsidy Tracker as well as those not identified by Subsidy Tracker but which provide 10-K disclosures. Panel B provides the number of firms by year. Panel C presents disclosure frequencies for our qualitative and quantitative disclosure measures; Panel D replicates Panel B but provides percentages on the conditional sample of firms that disclose at least one piece of subsidy-related information. Panel E presents disclosure frequencies for subsidies identified as potentially material, using a \$1 million threshold (Panel F). Finally, Panel G presents disclosure frequencies for firms identified as having received subsidies in the preceding five years. We refer the reader to Appendix C for variable definitions.

Panel A. Number of Firms by Year									
Year	(1)	(2)	(3) Good Jobs First Firms with Cumulative 10-yr Subsidies > 0		(4) Non-Good Jobs First Firms (Disclosers)		(5) Disclosers Among Good Jobs First Firms		
	N	Good Jobs First Firms							
2018	1,823	1,753			1,182		70		36
2019	1,789	1,717			1,170		72		34
2020	1,811	1,679			1,147		132		74
2021	1,837	1,659			1,134		178		85
2022	1,802	1,606			1,089		196		132

Panel B. Disclosure Rates of Government Assistance (All Firms)										
Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	N	AnySubsidyDisc	COVIDDisc	ImmaterialDisc	AcctPolicyDisc	NatureTypesDisc	NumericalDisc	NumericalDisc	USSubsidyDisc	ForeignSubsidyDisc
2018	1,823	5.8%	0.0%	0.4%	2.1%	1.6%	1.5%	4.9%	1.7%	0.9%
2019	1,789	5.9%	0.0%	0.6%	2.5%	1.7%	1.6%	4.8%	1.7%	1.0%
2020	1,811	11.4%	1.6%	1.8%	4.9%	3.5%	3.4%	9.8%	3.6%	2.2%
2021	1,837	14.3%	2.0%	2.3%	6.5%	4.8%	5.0%	12.2%	5.5%	2.4%
2022	1,802	18.2%	2.9%	2.2%	10.3%	8.2%	8.5%	14.7%	8.2%	3.6%

Panel C. Contents of Government Assistance Disclosures Among Disclosing Firms (Any10-KSubsidyDisclosure = 1)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	N	COVID Disc	Immaterial Disc	AcctPolicy Disc	NatureTypes Disc	Numerical Disc	Numerical Disc	USSubsidy Disc	Foreign Subsidy Disc
2018	106	0.0%	6.6%	36.8%	28.3%	26.4%	84.0%	29.2%	15.1%
2019	106	0.0%	9.4%	42.5%	28.3%	27.4%	81.1%	29.2%	16.0%
2020	206	14.1%	16.0%	42.7%	31.1%	30.1%	86.4%	32.0%	19.4%
2021	263	13.7%	16.0%	45.2%	33.5%	35.0%	85.2%	38.4%	16.7%
2022	328	16.2%	11.9%	56.4%	44.8%	46.6%	80.5%	45.1%	19.8%

Panel D. Disclosure Rates of Government Assistance Among Material Subsidies Recipients (Annual ASC 832 Subsidy > \$ 1 million)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	N	AnySubsidyDisc	COVID Disc	Immaterial Disc	AcctPolicy Disc	NatureTypes Disc	Numerical Disc	Numerical Disc	USSubsidy Disc	Foreign Subsidy Disc
2018	95	5.3%	0.0%	0.0%	2.1%	1.1%	0.0%	4.2%	2.1%	1.1%
2019	95	3.2%	0.0%	0.0%	2.1%	1.1%	0.0%	2.1%	2.1%	1.1%
2020	80	8.8%	0.0%	1.3%	2.5%	2.5%	0.0%	6.3%	1.3%	1.3%
2021	85	9.4%	1.2%	0.0%	3.5%	3.5%	2.4%	8.2%	3.5%	1.2%
2022	89	23.6%	1.1%	2.2%	14.6%	11.2%	10.1%	16.9%	15.7%	4.5%

Table 3. Drivers of Subsidy Information Withholding by Firms

This table presents results from panel regression of firms' choice to withhold information related to government subsidies even when there is evidence that they have received such subsidies. The dependent variable, *InfoWithholding* is an indicator variable that equals to 1 if a firm receives positive amounts of subsidies in the past five years that are subject to the scope of the ASC 832 mandate while not disclosing any related information in their 10-Ks. We restrict the sample to the firms that have received positive amounts of subsidies in the past five years and to the period after the enactment of ASC 832. Panel A reports the preliminary set of determinants of subsidy information withholding, where *5YearSubsidy/Assets* is the five-year cumulative amounts of subsidies granted by the government, scaled by the firm's total assets. Panels B to D investigate the effects of politically sensitive industries, political contributions, and the firm's disclosure quality. *PolSensIndustry* is an indicator variable that equals 1 if the firm is within a politically sensitive industry. *Lobby* is an indicator variable that equals one if the firm makes any political contributions in the current year. *VoluntaryDiscloser* is an indicator variable that equals to 1 if the firm has voluntarily disclosed subsidy-related information in at least one fiscal year before ASC 832 was enacted. *Disaggregation* is the level of disaggregation of accounting data. *Guidance* is an indicator variable that equals 1 if the firm provides earnings guidance in the current year. *Precision* is the average precision of earnings guidance in the current year. Other variables are defined in Appendix C, and the list of politically sensitive industries is provided in Appendix C. *, **, *** indicate statistical significance at less than 10%, 5%, and 1%, respectively.

Panel A. Preliminary Determinants of Subsidy Information Withholding

VARIABLES	(1) <i>InfoWithholding</i>	(2) <i>InfoWithholding</i>	(3) <i>InfoWithholding</i>	(4) <i>InfoWithholding</i>
<i>5YearSubsidy/Assets</i>	-2.062*** (-4.54)			-2.100*** (-5.04)
<i>ROA</i>		0.341** (2.37)		0.341** (2.41)
<i>Size</i>		-0.019* (-1.87)		-0.014 (-1.14)
<i>BTM</i>		-0.019 (-0.52)		-0.020 (-0.54)
<i>Leverage</i>	0.020 (0.29)			0.010 (0.15)
<i>HHI</i>		0.023*** (3.33)		0.021*** (3.12)
<i>R&D</i>		0.392** (2.64)		0.376** (2.20)
<i>BSeg</i>		-0.007 (-0.95)		-0.007 (-0.92)
<i>GSeg</i>		-0.025*** (-3.02)		-0.026*** (-2.97)
<i>AnalystCoverage</i>		-0.008 (-0.38)		-0.017 (-0.69)
<i>M&A</i>	0.025 (0.79)			0.020 (0.60)
<i>Big Four</i>	0.015 (0.34)			0.015 (0.33)
<i>Momentum</i>			-0.040 (-0.80)	-0.045 (-0.87)
<i>Volatility</i>			0.137 (0.54)	-0.027 (-0.09)
<i>Beta</i>			0.008 (0.27)	0.003 (0.09)
Observations	612	586	610	584
R-squared	0.169	0.208	0.159	0.225
Year-Fixed Effects	Yes	Yes	Yes	Yes
Industry-Fixed Effects	Yes	Yes	Yes	Yes
Cluster	Industry	Industry	Industry	Industry
Adj. R-squared	0.0920	0.116	0.0768	0.127

Panel B. Subsidy Information Withholding and Politically Sensitive Industries

VARIABLES	(1) <i>InfoWithholding</i>	(2) <i>InfoWithholding</i>	(3) <i>InfoWithholding</i>
<i>PolSensIndustry</i>	-0.146*** (-2.70)	-0.171*** (-3.00)	-0.103* (-1.85)
<i>5YearSubsidy/Assets</i>	-2.925*** (-6.17)	-3.358*** (-8.85)	-2.447*** (-8.40)
<i>PolSensIndustry</i> * <i>5YearSubsidy/Assets</i>		5.509*** (6.68)	4.443*** (3.54)
Observations	621	621	584
R-squared	0.053	0.061	0.233
Year-Fixed Effects	Yes	Yes	Yes
Industry-Fixed Effects	No	No	Yes
Controls	No	No	Yes
Cluster	Industry	Industry	Industry
Adj. R-squared	0.0500	0.0562	0.133

Panel C. Subsidy Information Withholding and Lobbying

VARIABLES	(1) <i>InfoWithholding</i>	(2) <i>InfoWithholding</i>	(3) <i>InfoWithholding</i>
<i>Lobby</i>	-0.044* (-1.86)	-0.027 (-1.22)	-0.009 (-0.41)
<i>5YearSubsidy/Assets</i>	-2.045*** (-4.74)	-1.357** (-2.27)	-1.452** (-2.48)
<i>Lobby</i> * <i>5YearSubsidy/Assets</i>		-4.616** (-2.43)	-4.363** (-2.38)
Observations	612	612	584
R-squared	0.173	0.183	0.234
Year-Fixed Effects	Yes	Yes	Yes
Industry-Fixed Effects	Yes	Yes	Yes
Controls	Yes	No	Yes
Cluster	Industry	Industry	Industry
Adj. R-squared	0.0946	0.104	0.135

Panel D. Voluntary Disclosure and Disclosure Quality

DisclosureProxy VARIABLES	(1) VoluntaryDiscloser InfoWithholding	(2) Guidance InfoWithholding	(3) Precision InfoWithholding	(4) Disaggregation InfoWithholding
<i>DisclosureProxy</i>	-0.679*** (-12.08)	0.048* (1.94)	0.019* (1.90)	0.037 (0.25)
<i>5YearSubsidy/Assets</i>	-0.699 (-1.66)	-2.114*** (-4.89)	-2.107*** (-4.94)	-2.143*** (-5.61)
Observations	584	584	584	581
R-squared	0.479	0.228	0.227	0.230
Year-Fixed Effects	Yes	Yes	Yes	Yes
Industry-Fixed Effects	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Cluster	Industry	Industry	Industry	Industry
Adj. R-squared	0.412	0.130	0.129	0.131

Table 4. The Effects of ASC 832 on Subsidy Disclosure Rates

This table examines the impact of the disclosure mandate (ASC 832) on firms' disclosures of any information on government subsidies as a function of the *InteractionTerm*, including the dollar value of subsidies received by the firm, the firm's disclosure practice before the regulation, and political contributions. The dependent variable, *AnySubsidyDisc*, is an indicator variable that equals to 1 if the firm provides any discussion about government assistance in its 10-Ks. *PostASC* is an indicator variable for the 10-Ks filed for the fiscal years after 2022 (including 2022). *5YearSubsidy/Assets* is the five-year cumulative amount of subsidies granted by the government, scaled by the firm's total assets. *Lobby* is an indicator variable that equals one if the firm makes any political contributions in the current year. *VoluntaryDiscloser* is an indicator variable that equals to 1 if the firm has voluntarily disclosed subsidy-related information in at least one fiscal year before ASC 832 was enacted. Other variables are defined in Appendix C. *, **, *** indicate statistical significance at less than 10%, 5%, and 1%, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
InteractionTerm	5YearSubsidy/Assets		VoluntaryDiscloser		Lobby	
VARIABLES	<i>AnySubsidyDisc</i>	<i>AnySubsidyDisc</i>	<i>AnySubsidyDisc</i>	<i>AnySubsidyDisc</i>	<i>AnySubsidyDisc</i>	<i>AnySubsidyDisc</i>
<i>PostASC</i>	0.045*** (6.04)	0.046*** (5.82)	0.075*** (6.08)	0.073*** (6.73)	0.091*** (7.26)	0.087*** (8.86)
<i>InteractionTerm</i>	0.093 (0.44)	0.036 (0.21)	0.787*** (19.34)	0.742*** (22.94)	-0.040 (-1.25)	0.014 (1.16)
<i>PostASC*InteractionTerm</i>	2.738*** (6.28)	2.745*** (6.52)	0.036 (1.03)	0.046 (1.21)	-0.022 (-1.48)	-0.007 (-0.56)
Observations	8,409	8,034	9,057	8,609	9,057	8,609
R-squared	0.071	0.079	0.706	0.710	0.124	0.245
Year-Fixed Effects	No	No	No	No	No	No
Industry-Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes
Cluster	Industry	Industry	Industry	Industry	Industry	Industry
Adj. R-squared	0.0631	0.0693	0.703	0.707	0.117	0.238

Table 5. The Effects of ASC 832 on Subsidy Disclosure Quality

This table examines the impact of the disclosure mandate (ASC 832) on firms' disclosures of any information on several key aspects of subsidy disclosure quality as a function of the *InteractionTerm*, including the dollar value of subsidies received by the firm, the firm's disclosure practice before the regulation, and political contributions, presented respectively in Panels A to C. *PostASC* is an indicator variable for the 10-Ks filed for the fiscal years after 2022 (including 2022). *AcctPolicyDisc* is an indicator variable that equals to 1 if the firm provides a discussion of how it accounts for government assistance is accounted for. *NatureTypesDisc* is an indicator variable that equals to 1 if the firm provides specific information about the types of government assistance (e.g., grants, loans, etc.) and the nature (e.g., job creation, plant building, etc.). *NumericalDisc* is an indicator variable that equals to 1 if the firm discloses the numerical value of subsidies and 0 otherwise. Other variables are defined in Appendix C. *, **, *** indicate statistical significance at less than 10%, 5%, and 1%, respectively.

Panel A. Disclosure of the Accounting Policy

VARIABLES	(1) <i>AcctPolicyDisc</i>	(2) <i>AcctPolicyDisc</i>	(3) <i>NatureTypesDisc</i>	(4) <i>NatureTypesDisc</i>	(5) <i>NumericalDisc</i>	(6) <i>NumericalDisc</i>
<i>PostASC</i>	0.026*** (4.84)	0.025*** (4.53)	0.023*** (4.79)	0.023*** (4.45)	0.026*** (4.64)	0.026*** (4.36)
<i>5YearSubsidy/Assets</i>	0.257 (1.46)	0.229 (1.33)	-0.067 (-1.32)	-0.083 (-1.59)	-0.074 (-1.24)	-0.104* (-1.70)
<i>PostASC*5YearSubsidy/Assets</i>	2.324*** (5.19)	2.327*** (5.53)	0.598*** (4.43)	0.619*** (4.66)	0.045 (0.59)	0.069 (0.80)
Observations	8,409	8,034	8,409	8,034	8,409	8,034
R-squared	0.058	0.063	0.042	0.045	0.037	0.040
Year-Fixed Effects	No	No	No	No	No	No
Industry-Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes
Cluster	Industry	Industry	Industry	Industry	Industry	Industry
Adj. R-squared	0.0503	0.0538	0.0342	0.0354	0.0287	0.0303

Panel B. Disclosure of the Nature or Type of Government Assistance

VARIABLES	(1) <i>AcctPolicyDisc</i>	(2) <i>AcctPolicyDisc</i>	(3) <i>NatureTypesDisc</i>	(4) <i>NatureTypesDisc</i>	(5) <i>NumericalDisc</i>	(6) <i>NumericalDisc</i>
<i>PostASC</i>	0.048*** (4.86)	0.046*** (5.34)	0.038*** (4.91)	0.035*** (4.83)	0.040*** (5.10)	0.037*** (5.31)
<i>VoluntaryDiscloser</i>	0.344*** (11.40)	0.335*** (8.95)	0.250*** (12.74)	0.236*** (9.57)	0.252*** (11.51)	0.237*** (9.94)
<i>PostASC*VoluntaryDiscloser</i>	0.084*** (2.79)	0.088*** (2.75)	0.091*** (3.89)	0.092*** (3.77)	0.103*** (3.55)	0.113*** (3.71)
Observations	9,057	8,609	9,057	8,609	9,057	8,609
R-squared	0.303	0.313	0.225	0.233	0.228	0.236
Year-Fixed Effects	No	No	No	No	No	No
Industry-Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes
Cluster	Industry	Industry	Industry	Industry	Industry	Industry
Adj. R-squared	0.297	0.306	0.219	0.226	0.222	0.228

Panel C. Disclosure of Any Numerical Information

VARIABLES	(1) <i>AcctPolicy</i> <i>Disc</i>	(2) <i>AcctPolicy</i> <i>Disc</i>	(3) <i>NatureTypes</i> <i>Disc</i>	(4) <i>NatureTypes</i> <i>Disc</i>	(5) <i>Numerical</i> <i>Disc</i>	(6) <i>Numerical</i> <i>Disc</i>
<i>PostASC</i>	0.069*** (6.06)	0.066*** (6.72)	0.058*** (5.31)	0.054*** (5.13)	0.060*** (5.76)	0.058*** (5.86)
<i>Lobby</i>	-0.015 (-1.23)	0.009 (1.36)	-0.012 (-1.36)	0.013** (2.36)	-0.017** (-2.07)	0.006 (1.30)
<i>PostASC*Lobby</i>	-0.032*** (-2.77)	-0.024** (-2.35)	-0.026* (-1.88)	-0.019 (-1.43)	-0.022 (-1.57)	-0.016 (-1.14)
Observations	9,057	8,609	9,057	8,609	9,057	8,609
R-squared	0.061	0.108	0.048	0.089	0.047	0.085
Year-Fixed Effects	No	No	No	No	No	No
Industry-Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes
Cluster	Industry	Industry	Industry	Industry	Industry	Industry
Adj. R-squared	0.0540	0.0990	0.0412	0.0807	0.0398	0.0765

Table 6. Real Effects of ASC 832 and Subsidy Disclosure on the Earnings Response Coefficients

This table examines the potential impact of ASC 832 and Subsidy Disclosure on the market's response to the earnings surprise. The dependent variable, $BHAR(xM)$, is the x-month buy-and-hold abnormal return. SUE is the earnings surprise, measured by the difference between the actual EPS and the analysts' consensus forecast, divided by the closing price of the current fiscal year. $SubstantialDisc$ is an indicator variable that equals 1 if the firm discloses the subsidies and the amounts of subsidies is greater than \$5 million. $PostASC$ is an indicator variable for the 10-Ks filed for the fiscal years after 2022 (including 2022). Other variables are defined in Appendix C. *, **, *** indicate statistical significance at less than 10%, 5%, and 1%, respectively.

VARIABLES	(1) <i>BHAR(3M)</i>	(2) <i>BHAR(3M)</i>	(3) <i>BHAR(1M)</i>	(4) <i>BHAR(1M)</i>
SUE	0.866*** (4.31)	1.137*** (4.11)	0.635*** (5.63)	0.712*** (5.21)
$SubstantialDisc$	-0.009 (-0.65)	0.034** (2.19)	0.001 (0.13)	0.006 (0.32)
$PostASC$		-0.045*** (-3.52)		-0.011* (-1.89)
$SUE*SubstantialDisc$	-2.034*** (-3.24)	-3.887*** (-7.73)	-0.849* (-1.72)	-1.438* (-1.95)
$SubstantialDisc*PostASC$		-0.055* (-1.88)		0.003 (0.14)
$SUE*PostASC$		-1.166** (-2.18)		-0.334 (-0.88)
$SUE*SubstantialDisc*PostASC$		3.532*** (3.40)		1.247 (1.38)
Observations	6,119	6,119	6,142	6,142
R-squared	0.058	0.069	0.059	0.061
Year-Fixed Effects	No	No	No	No
Industry-Fixed Effects	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Cluster	Industry	Industry	Industry	Industry
Adj. R-squared	0.0453	0.0561	0.0460	0.0473

Table 7. Real Effects of ASC 832 on the Types of Subsidies Sought by Public Firms

This table examines the potential impact of ASC 832 on the types of government assistance sought by public firms. The sample includes all subsidies identified from Good Jobs First's Subsidy Tracker database, aggregated to the state-year level, separately for US public firms and for other firms (non-US firms and US private entities) in Columns (1)-(3) and (5)-(7). In Columns (4) and (8), we present placebo tests where subsidies are aggregated at the state-year level, separately for foreign public firms and for other firms (US public and private firms and non-US private firms). The dependent variable, *ASC832SubsidyPct*, is the proportion of all subsidies awarded subject to ASC 832 disclosure requirements. *USPublic* is an indicator variable that equals one for US public firms and zero otherwise. *PostASCAannounce* (*PostASCEffective*) is an indicator variable that equals one for 2016 (2022) and beyond, representing the initial announcement and implementation dates of ASC 832, respectively. *Foreign Public* is an indicator variable that equals one for public non-US firms. Other variables are defined in Appendix C. Columns (1)-(4) include all types of subsidy types in the sample, while Columns (5)-(8) exclude subsidies provided in the forms of government financing, such as loans and bonds. *, **, *** indicate statistical significance at less than 10%, 5%, and 1%, respectively.

	Including Government Financing				Excluding Government Financing			
	(1) <i>ASC832</i> <i>SubsidyPct</i>	(2) <i>ASC832</i> <i>SubsidyPct</i>	(3) <i>ASC832</i> <i>SubsidyPct</i>	(4) <i>ASC832</i> <i>SubsidyPct</i>	(5) <i>ASC832</i> <i>SubsidyPct</i>	(6) <i>ASC832</i> <i>SubsidyPct</i>	(7) <i>ASC832</i> <i>SubsidyPct</i>	(8) <i>ASC832</i> <i>SubsidyPct</i>
<i>USPublic</i>	-0.068*** (0.023)	-0.055** (0.026)	-0.041** (0.015)		-0.054** (0.022)	-0.046* (0.026)	-0.035** (0.015)	
<i>USPublic</i> * <i>PostASCAannounce</i>			-0.022 (0.016)				-0.017 (0.015)	
<i>USPublic</i> * <i>PostASCEffective</i>	-0.068* (0.038)		-0.073* (0.039)		-0.077** (0.037)		-0.078** (0.038)	
<i>USPublic</i> *2019		-0.010 (0.022)					-0.002 (0.019)	
<i>USPublic</i> *2020		-0.010 (0.026)					0.005 (0.024)	
<i>USPublic</i> *2021		-0.031 (0.027)					-0.035 (0.028)	
<i>USPublic</i> *2022		-0.081* (0.043)					-0.085* (0.043)	
<i>ForeignPublic</i>				-0.036 (0.027)				-0.028 (0.027)
<i>ForeignPublic</i> * <i>PostASCEffective</i>				-0.062 (0.050)				-0.067 (0.051)
Constant	0.514*** (0.012)	0.514*** (0.012)	0.545*** (0.009)	0.501*** (0.013)	0.497*** (0.011)	0.497*** (0.011)	0.532*** (0.009)	0.494*** (0.013)
Observations	460	460	1,232	380	460	460	1,230	380
Adjusted R-squared	0.861	0.860	0.890	0.792	0.875	0.874	0.895	0.791
Sample	2018-2022	2018-2022	2010-2022	2018-2022	2018-2022	2018-2022	2010-2022	2010-2022
Year-by-State Fixed Effects	Yes							
Cluster	State							