

Online Appendix

“Tax Avoidance Through Corporate Accounting: Insights for Corporate Tax Bases”

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Appendix A. Institutional Details about the Franchise Tax

Details about the pre-reform tax. Prior to the reform, the franchise tax applied to incorporated entities including not only C-corporations, but also S-corporations (S-Corps) and limited liability companies (LLCs). The formula for determining tax liability is summarized in equation A.1, where L is total tax liability, Y is taxable income, K is “taxable capital” (*i.e.* total assets of the business net of liabilities), and F is an apportionment factor.

$$L = \max(0.045 \cdot Y, 0.025 \cdot K) \cdot F \quad (\text{A.1})$$

The franchise tax liability for incorporated business entities was equal to the product of (a) the greater of (1) 4.5% of taxable income or (2) 0.25% of taxable capital, multiplied by (b) an apportionment factor reflecting the gross receipts from Texas over total gross receipts. Taxable income was defined substantially the same as federal taxable income.¹

Details about the new Margin Tax. The 2006 reform replaced this system with a complex new tax on limited liability entities (now including partnerships). The most substantial change was to the tax base, which was broadened to generally reflect total revenue rather than profits, thus significantly narrowing the ability to deduct expenses. The new franchise tax liability is summarized in equation A.2, where τ is the tax rate, R is total revenue, c is COGS, and w is total compensation.

$$L = \tau \cdot (R - \max(c, w, 0.3 \cdot R)) \cdot F \quad (\text{A.2})$$

The post-reform tax base was defined as total revenue (R) net of the maximum of COGS (c), total compensation (w), or 30% of total revenue. Note, importantly, that some labor expenses will count as both COGS and compensation, but they cannot be “double-deducted” because each firm can only choose one option for the deduction.

Note also that the tax is implemented on a consolidated basis, which prevents related entities from charging COGS to one another in a way that reduces tax liability.

¹One notable modification was that, for purposes of the Texas franchise tax, C-corporations and LLCs with more than 35 shareholders or members could not deduct officer compensation.

Appendix B. Data Appendix

We limit our analysis to C-corporations for a number of reasons. First, partnerships and sole-proprietorships were not subject to any tax before the reform. The transition from “no state entity-level taxes” to “entity-level taxes” involves a different set of incentive changes than a reform to an existing system. Second, because they were not subject to tax, there was an awareness of firms reclassifying as partnerships to avoid taxes (*see* p. 38 of Egan, 2007). Third, any partnership defined as “passive” is not subject to the franchise tax, and this classification is not observable in the federal tax data. Finally, in the case of S-corporations, the Texas reform interacted not only with the choice of reporting COGS versus non-COGS expenses, but also with the choice by owners of whether to take more or less salary. This second interaction would confound and bias our results, but is a potentially fruitful avenue for future research.

The data we use includes many variables on the front page of the 1120. We use gross receipts (line 1 on the 1120), COGS (line 2), total income (line 11), compensation of officers (line 12), salaries and wages (line 13), taxes and licenses (line 17), pension and profit sharing plans (line 23), employee benefit programs (line 24), total deductions (line 27) and taxable income (line 30) in our analysis. We also use the two-digit NAICS industry code from Schedule K (line 2).

In Figure B.8, below, we have included an image of Form 1120 from tax year 2005. On the image we have highlighted the lines referenced above. In Figure B.9, below, we have included an image containing a portion of Schedule A from tax year 2005 (now Form 1125-A), an attachment to Form 1120 which reports the components of COGS. We have highlighted “cost of labor,” a line onto which expenses could be shifted from the “salaries and wages” line on Form 1120.

In addition to variables from Form 1120, we include information from Form W-2 aggregated to the firm-level, such as total employees and total wages paid. We match W-2s to a firm filing an 1120 through a bridge that matches employer identification numbers (EINs) from information returns to their “parent” EINs used to file entity-level tax returns. This bridge is important to provide a more accurate measure of total W-2 wages, especially for large firms. The construction of the bridge is described in Joint Committee on Taxation (2022).²

We proxy for Texas’ apportionment factor by calculating the fraction of W-2 wages a firm (in a given year) pays to residents of each state. This measure is imperfect, as apportionment is determined by the place of sale or delivery and not production. Our measure would include

²A single corporate filer may use multiple EINs to issue W-2s for reasons that include legacy W-2s from mergers and acquisitions and more simple organizational purposes. Some of these are easily observable in the tax data while others are not. First, C-corporations often report parent-child relationships annually on Form 851, but can also report them on Schedule K of Form 1120. Even still, this reporting is often incomplete as an EIN need not belong to a distinct subsidiary. We therefore also impute forward any parent-child relationships we observe in the past, but allow them to break if a child files its own tax return. Next, we perform a statistical match using addresses that matches firms that file from the same address when that address is sufficiently rare. Lastly, we perform some manual matches to properly assign some of the largest wage payers to a recognizable entity. We use the matches to produce a measure of total Medicare wages (Box 5) and total number of employees and add these to our data.

wages paid to factory workers in Texas manufacturing a product that is sold and shipped to another state whereas the apportionment factor would exclude this revenue, but would include the reverse.

Figure B.8: Form 1120 in tax year 2005

Form 1120 Department of the Treasury Internal Revenue Service		U.S. Corporation Income Tax Return For calendar year 2005 or tax year beginning _____, 2005, ending _____, 20____ ▶ See separate instructions.		OMB No. 1545-0123 2005								
A Check if: 1 Consolidated return (attach Form 851) <input type="checkbox"/> 2 Personal holding co. (attach Sch. PH) <input type="checkbox"/> 3 Personal service corp. (see instructions) <input type="checkbox"/> 4 Schedule M-3 required (attach Sch. M-3) <input type="checkbox"/>		Use IRS label. Otherwise, print or type. Name Number, street, and room or suite no. If a P.O. box, see instructions. City or town, state, and ZIP code		B Employer identification number _____ C Date incorporated _____ D Total assets (see instructions) \$ _____								
E Check if: (1) <input type="checkbox"/> Initial return (2) <input type="checkbox"/> Final return (3) <input type="checkbox"/> Name change (4) <input type="checkbox"/> Address change												
Income	1a	Gross receipts or sales		b	Less returns and allowances		c	Bal	▶	1c		
	2	Cost of goods sold (Schedule A, line 8)								2		
	3	Gross profit. Subtract line 2 from line 1c								3		
	4	Dividends (Schedule C, line 19)								4		
	5	Interest								5		
	6	Gross rents								6		
	7	Gross royalties								7		
	8	Capital gain net income (attach Schedule D (Form 1120))								8		
	9	Net gain or (loss) from Form 4797, Part II, line 17 (attach Form 4797)								9		
	10	Other income (see instructions—attach schedule)								10		
	11	Total income. Add lines 3 through 10								▶	11	
Deductions (See instructions for limitations on deductions.)	12	Compensation of officers (Schedule E, line 4)								12		
	13	Salaries and wages (less employment credits)								13		
	14	Repairs and maintenance								14		
	15	Bad debts								15		
	16	Rents								16		
	17	Taxes and licenses								17		
	18	Interest								18		
	19	Charitable contributions (see instructions for 10% limitation)								19		
	20a	Depreciation (attach Form 4562)			20a							
	b	Less depreciation claimed on Schedule A and elsewhere on return			20b						20c	
	21	Depletion									21	
	22	Advertising									22	
	23	Pension, profit-sharing, etc., plans									23	
	24	Employee benefit programs									24	
	25	Domestic production activities deduction (attach Form 8903)									25	
	26	Other deductions (attach schedule)									26	
	27	Total deductions. Add lines 12 through 26									▶	27
	28	Taxable income before net operating loss deduction and special deductions. Subtract line 27 from line 11										28
	29	Less: a Net operating loss deduction (see instructions)			29a							
b	Special deductions (Schedule C, line 20)			29b							29c	
30	Taxable income. Subtract line 29c from line 28 (see instructions if Schedule C, line 12, was completed)										30	

Notes: This figure contains an image of Form 1120 for tax year 2005. The figure has been augmented with red boxes highlighting the primary fields used in our analyses.

Figure B.9: Schedule A in tax year 2005

Form 1120 (2005) Page **2**

Schedule A Cost of Goods Sold (see instructions)

1 Inventory at beginning of year	1		
2 Purchases	2		
3 Cost of labor	3		
4 Additional section 263A costs (attach schedule)	4		
5 Other costs (attach schedule)	5		
6 Total. Add lines 1 through 5	6		
7 Inventory at end of year	7		
8 Cost of goods sold. Subtract line 7 from line 6. Enter here and on page 1, line 2	8		

9a Check all methods used for valuing closing inventory:

- (i) Cost
- (ii) Lower of cost or market
- (iii) Other (Specify method used and attach explanation.) ▶

b Check if there was a writedown of subnormal goods ▶

c Check if the LIFO inventory method was adopted this tax year for any goods (if checked, attach Form 970) ▶

d If the LIFO inventory method was used for this tax year, enter percentage (or amounts) of closing inventory computed under LIFO **9d**

e If property is produced or acquired for resale, do the rules of section 263A apply to the corporation? Yes No

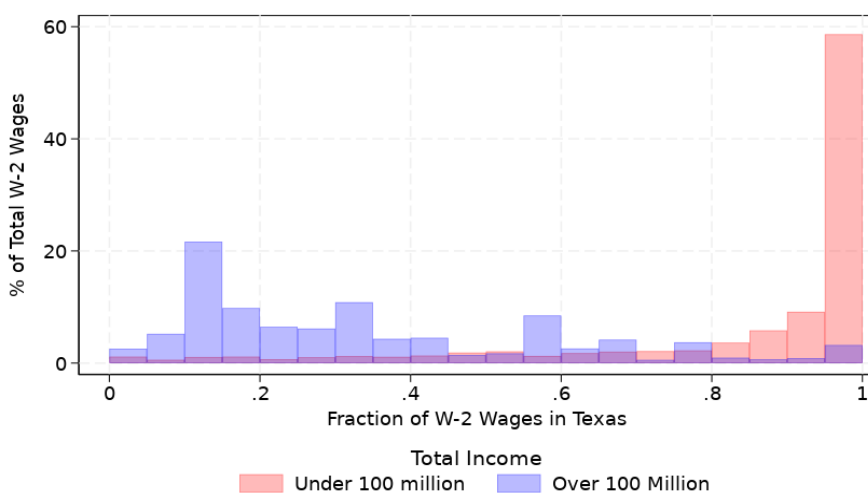
f Was there any change in determining quantities, cost, or valuations between opening and closing inventory? If "Yes," attach explanation Yes No

Notes: This figure contains an image of Schedule A, an attachment to Form 1120 that details the components of cost of goods sold, for tax year 2005. The figure has been augmented with red boxes highlighting the primary fields used in our analyses.

Appendix C. Apportionment Factor Proxy

We construct a proxy for the apportionment factor of firms in our sample using the W-2s they issue to their employees. We posit that the location of employees is a better indicator of where firms do business than where they are headquartered. We use this apportionment factor proxy to limit our sample directly and to inform our choice of limiting our main analysis to firms with less than \$100 million in revenue. Figure C.10 shows the distribution of wages paid to employees of firms in Texas with less than and more than \$100 million in revenue by the apportionment factor of the firm paying the wage for 2005, a year prior to the reform. Informed by this figure, we exclude firms reporting over \$100 million in total revenue from our analysis since the majority of the wages they report are paid to employees living outside of Texas whereas the vast majority of firms reporting less than \$100 million in revenue pay over 80% of wages to employees living in Texas. While not a perfect measure, this suggests that these smaller and medium-sized firms conduct their business primarily in Texas while the larger firms likely do not.

Figure C.10: Distribution of Apportionment Proxy in 2005

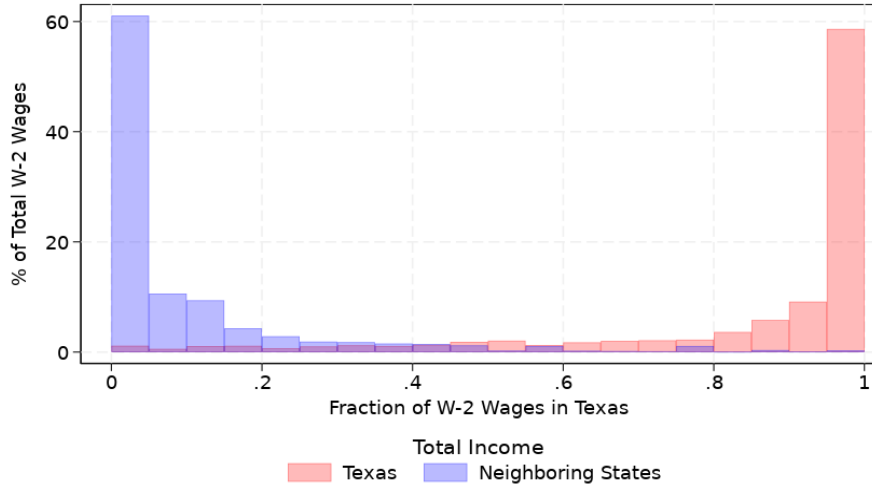


Notes: This figure provides a histogram of the apportionment factor proxy we construct using the percentage of W-2s issued to individuals in Texas. This figure is limited to firms headquartered in Texas and compares the distribution of firms reporting over \$100 million in wages and those reporting less than \$100 million in wages.

We also use our apportionment proxy to exclude firms in Texas and neighboring states for which we think there may be substantial “bleed” across the Texas border, which we define as at least 25% of their wages to employees outside Texas. Figure C.11 shows that when focusing on firms with less than \$100 million in revenue, the vast majority of wages paid by firms headquartered in Texas are paid to employees domiciled in Texas and the vast majority of wages paid by firms in its neighboring states are paid to employees not domiciled in Texas. This figure also shows that 25% appears to be a good cutoff in that it leaves the vast majority of firms (weighted by wages paid) in the analysis sample.

It is important to note that the apportionment factor is important only in determining the marginal benefit of shifting and not the latitude a firm has to shift. Firms are taxed

Figure C.11: Distribution of Apportionment Proxy in 2005 for Firms in Texas and Neighboring States



Notes: This figure provides a histogram of the apportionment factor proxy we construct using the percentage of W-2s issued to individuals in Texas. This figure is limited to firms reporting less than \$100 million in W-2 wages and compares the distribution of firms headquartered in Texas and firms headquartered in neighboring states.

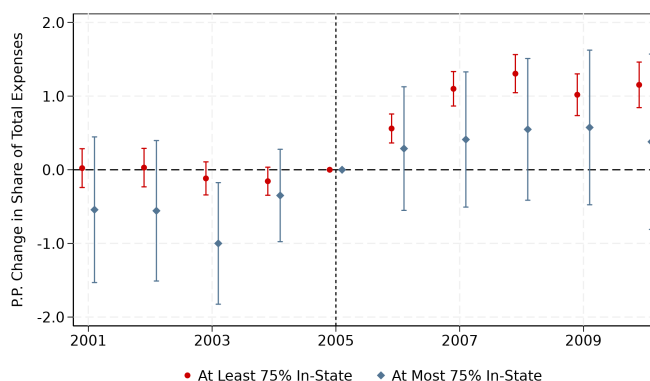
based on the revenue they receive in Texas, but they determine their deductions using their revenue and expenses from both within and without Texas. For example, a firm with an apportionment factor of 0.2 has two-tenths of a cent incentive to engage in shifting instead of a one cent incentive (were the apportionment factor 1). This means that the main cause for concern about attenuation of measured effects is how the apportionment factor changes the incentive to engage in shifting behaviors and not other legal restrictions on their ability to shift. We abstract away from a firm’s choice of apportionment factor even as we acknowledge that the apportionment factor is an endogenous object that firms have some control over, especially over longer periods of time.

Appendix D. Downward Bias From Multi-State Activity

In Section 4.3 we discussed ways that multi-state activity can bias our estimates down. We cannot directly observe either the jurisdictions within which sales are made or where COGS activity is booked, which as a result can attenuate our estimates. For this reason, in an attempt to minimize this bias, our main specification only considers firms for which at least 75% of employees are located within the same state as the firm headquarters.

We observe evidence of this downward bias by comparing firms with different apportionment factors. In the figure below, the red line shows firms in our standard regression, so that at least 75% of workers are in-state (restricted to firms with at least 1 employee). The blue line keeps the same control group, but looks only at Texas firms with *at most* 75% of employees in Texas. The sample is smaller, so the point estimates are noisier, but the firms with more bleed across state lines have on average a much smaller response.

Figure D.12: Downward Bias from Multi-State Firms:
In-State versus Multi-State Effects

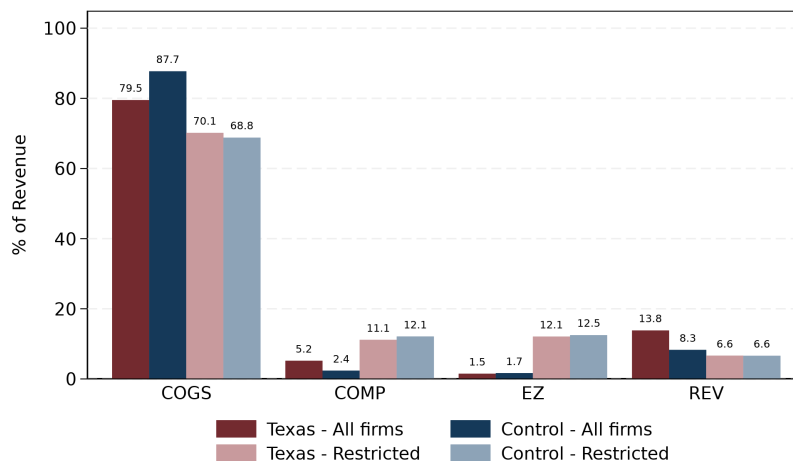


Notes: This figure displays the estimated percentage point change in the share of COGS as a share of total expenses, analogous to Figure 1, but separating two groups of Texas firms. Red is the default, with at least 75% of W-2 employees in-state, restricted to firms with at least one employee. Blue looks at Texas firms with *at most* 75% of employees in-state. Point estimates and ninety-five percent confidence intervals are estimated using a difference-in-differences specification given by Equation 6. The sample is limited to firms we define to be on the COGS margin as described in Section 4.2. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

Further, in our heterogeneity analysis we tend to see that industries with the most geographically restricted sales and employment—food and accommodation—have substantially larger responses than industries where goods can be produced and sold across state lines—such as manufacturing, wholesale, and retail. This evidence is consistent with downward bias from interstate activity.

Appendix E. Additional Tables and Figures

Figure E.13: Predicted Percentage of Revenue Reported by Firms Taking Each Deduction (2005)



Notes: This figure displays the percentage of total revenue (total income + COGS) in 2005 reported by firms, which we categorized into different margins as described in Section 4.2. We break down firms between whether they are Texas firms or in control states. We report results both for all firms (darker blue and red) as well as for firms that meet the narrower restriction we use for our statistical analysis. For the narrower restriction, we limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We also exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

Table E.3: Descriptive Statistics for Firms on the Compensation Margin (2005)

	10th		Median		90th		Mean (weighted)		Mean (unw.)	
	Texas	Control	Texas	Control	Texas	Control	Texas	Control	Texas	Control
Gross Revenue (\$1k)	0	0	279	243	1,711	1,802	11,742	13,284	925	965
Total Income (\$1k)	3	0	291	259	1,622	1,734	12,616	14,423	928	993
COGS (\$1k)	0	0	0	0	107	85	985	1,014	73	67
Wages (\$1k)	28	19	204	177	1,163	1,133	7,316	8,484	652	666
Tot Comp (\$1k)	27	19	212	184	1,131	1,127	7,145	8,336	632	657
Tot Deductions (\$1k)	15	0	304	272	1,697	1,771	12,478	14,035	973	1,049
Tot Assets (\$1k)	0	0	57	68	627	711	28,250	20,983	987	1,720
Employees (num)	1	1	5	5	27	27	152	240	16	18
Profit Margin (%)	-35	-35	0	0	8	9	-2	-2	-111	-113
Sales Growth (%)	-99	-100	-1	-3	42	26	8	1	-3	-14
Count									24,905	7,543

Notes: This table reports means and approximations of the 10th percentile, median, 90th percentiles to protect confidentiality. We include a selection of variables for firms on the compensation margin in Texas and in the controls states (Arkansas, Oklahoma and New Mexico) in 2005. The means are weighted by total revenue. These variables are gross revenue (form 1120 line 1a), total income (line 11), COGS (line 2), W-2 Medicare wages, total compensation under the Texas definition, total deductions (line 27), total assets (line D), total employees (from W-2s), profit margin (profit as a percentage of total income) and year over year growth in gross sales. Ratios (profit margin and sales growth) are winsorized at the 5th/95th percentiles.

Figure E.14: Raw Aggregates of COGS and Compensation as a Share of Expenses over Time



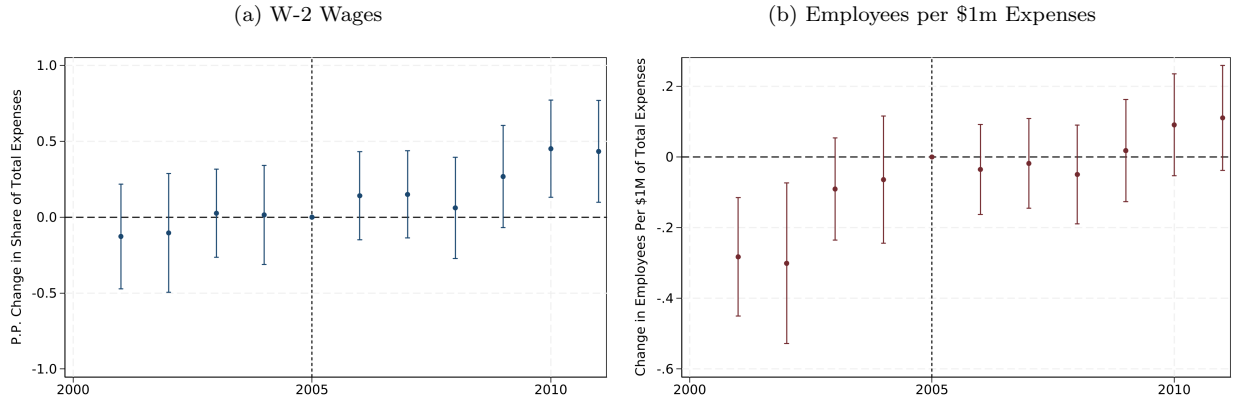
Notes: This figure displays the aggregate share of COGS as a percentage of total expenses (left panel), and compensation as a percentage of total expenses (right panel). The percentages are calculated by summing the total amount of COGS (or compensation) reported across all included firms, divided by the total amount of expenses or total amount of revenue of all firms, within the treatment group or control group. The sample is restricted in the same way as in our regression analysis in terms of firm size and apportionment factors. Measures are also winsorized at the 0.001% margin for COGS and 0.1% margin for compensation (due to a smaller sample) to prevent skew from outliers. Note that because these are raw aggregates, there are no controls for firm composition or characteristics, and so interpretation should be limited to understanding of descriptive aggregated patterns.

Table E.4: Changes in Reporting as a Share of Total Expenses

	COGS	Non-COGS	Compensation	Non-Compensation
Texas x Post	1.14 (0.13)	-1.14 (0.13)	0.35 (0.64)	-0.45 (0.67)
Obs.	721,750	721,750	332,469	362,402
R-squared	0.88	0.88	0.80	0.79
Clusters (Firms)	110,950	110,950	59,061	61,809

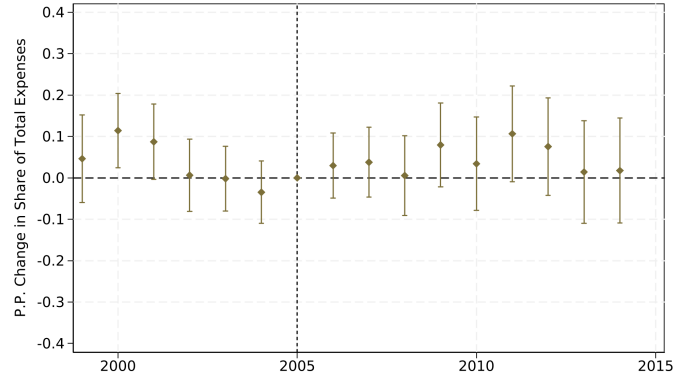
Notes: This table corresponds to Figure 1. It reports the estimated percentage point changes in the share of total expenses represented by COGS, non-COGS, compensation, and non-Compensation expenses for COGS margin firms and compensation margin firms in Texas vs. firms in control states. Point estimates are from the difference-in-differences specification given by Equation 6 with dependent variables defined as in Equation 8. Clustered standard errors in parentheses. We exclude year 2006, which only reflects anticipatory changes and thus biases down the estimate. The sample is limited to firms we define to be on the COGS and compensation margins as described in Section 4.2. We further limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

Figure E.15: Change in W-2 Wages and Employee Counts



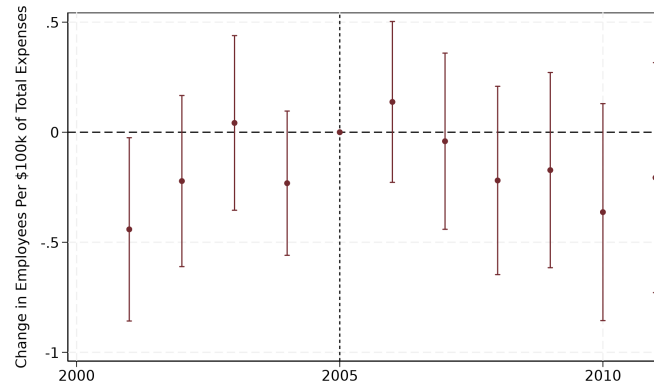
Notes: The left panel displays the estimated percentage point change in the share of total expenses represented by W-2 wages for COGS margin firms. The dependent variable is defined as in as in Equation 8. The right panel measures the change in employees per \$1m of total expenses, counted by issued W-2s. To prevent skew from outliers, the ratio is right-censored at 100 employees per \$1m of expenses. Point estimates and ninety-five percent confidence intervals are estimated using a difference-in-differences specification given by Equation 6. The sample is limited to firms we define to be on the COGS and compensation margins as described in Section 4.2. We further limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

Figure E.16: Changes in Officer Compensation as a Share of Total Expense



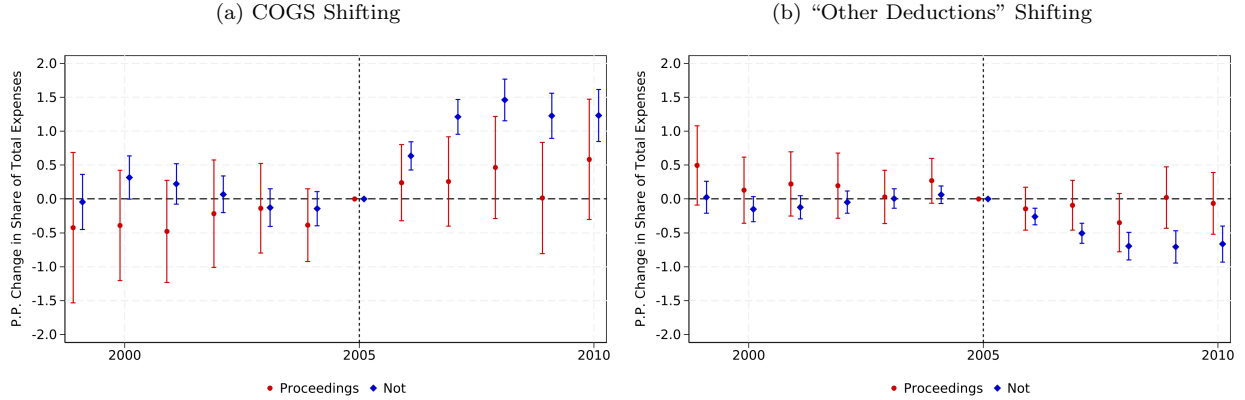
Notes: This figure displays the estimated percentage point changes in the share of total expenses represented by officer compensation among COGS margin firms. Point estimates and ninety-five percent confidence intervals are estimated using a difference-in-differences specification given by Equation 6 with dependent variables defined as in Equation 8. The sample is limited to firms we define to be on the COGS margin as described in Section 4.2. We further limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

Figure E.17: Change in Employees per \$1m Expenses



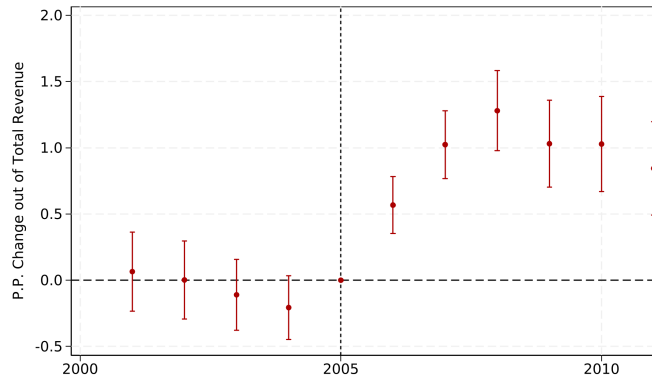
Notes: This figure displays the change in employees per \$1m of total expenses for compensation margin firms, counted by issued W-2s. To prevent skew from outliers, the ratio is capped at 100 employees per \$1m of expenses. Point estimates and ninety-five percent confidence intervals are estimated using a difference-in-differences specification given by Equation 6. The sample is limited to firms we define to be on the compensation margin as described in Section 4.2. We further limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

Figure E.18: Shifting Responses by Firms Under IRS Examination or in Litigation



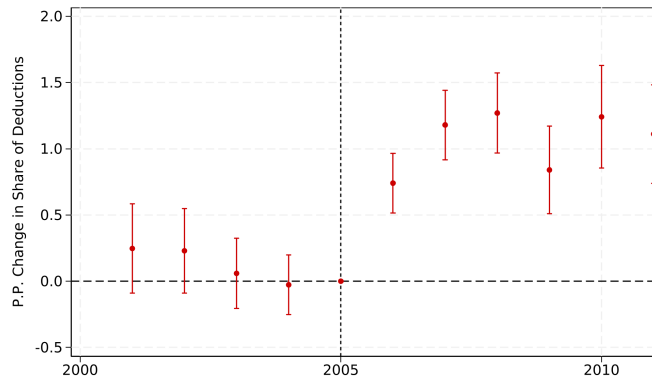
Notes: These figures display differences in the responses by firms under IRS examination or in litigation (red) versus those not (blue). Firms are categorized in the former if in 2005 they either received notice of an IRS examination or began litigation proceedings with the IRS. Firms are categorized in the latter if they existed in 2005 and neither of these occurred. The left panel reports the the COGS reclassification response, analogous to Figure 1. The right panel reports the “other deduction” reclassification response, analogous to Figure 2. Point estimates and ninety-five percent confidence intervals are estimated using a difference-in-differences specification given by Equation 6 with dependent variables defined as in Equation 8. The sample is limited to firms we define to be on the COGS margins as described in Section 4.2. We further limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

Figure E.19: Change in COGS, Extra Controls



Notes: This figure displays the estimated percentage point change in the share of total expenses represented by COGS for COGS margin firms, analogous to Figure 1, but with additional controls. Controls include quadratic, cubed, and quartic controls of the firm’s profit margin (profit as a percentage of total income), sales growth year over year, and sales-to-assets ratio. Point estimates and ninety-five percent confidence intervals are estimated using a difference-in-differences specification given by Equation 6. The sample is limited to firms we define to be on the COGS margin as described in Section 4.2. We further limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

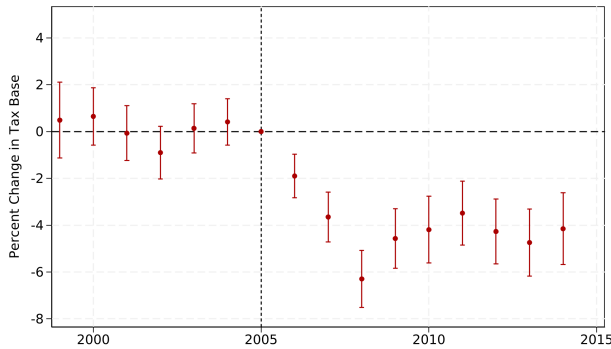
Figure E.20: Change in COGS, Balanced Panel



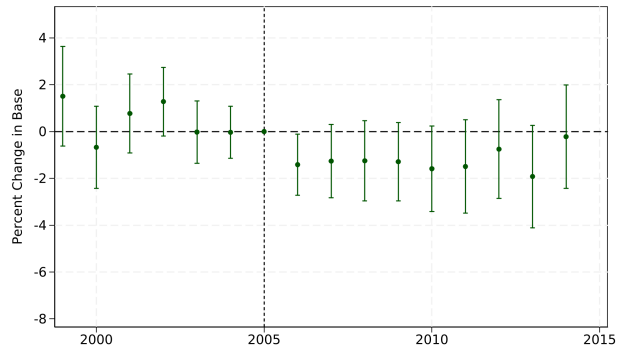
Notes: This figure displays the estimated percentage point change in the share of total expenses represented by COGS for COGS margin firms, analogous to Figure 1, but as a balanced panel. Treatment and control status is determined by the firm's status in 2005, and the firms are all present for the entire observation period. Point estimates and ninety-five percent confidence intervals are estimated using a difference-in-differences specification given by Equation 6. The sample is limited to firms we define to be on the COGS margin as described in Section 4.2. We further limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

Figure E.21: Percent Change in Corporate Tax Base, with Louisiana

(a) COGS Margin

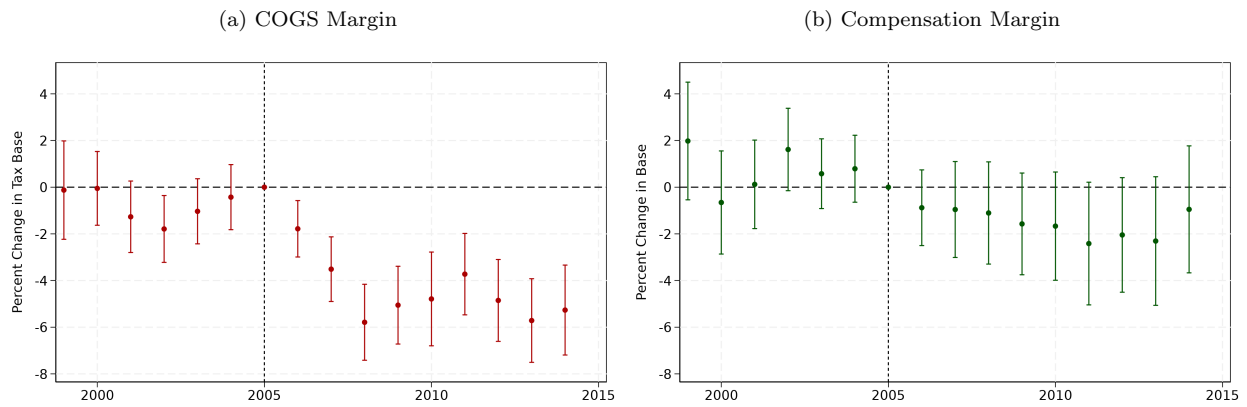


(b) Compensation Margin



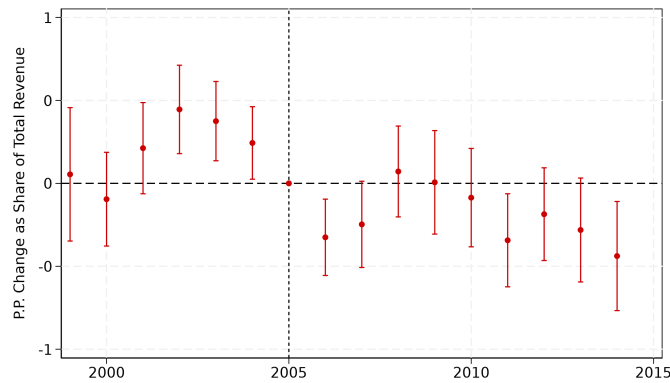
Notes: These figures display the estimated percent changes in the corporate tax base for COGS margin firms and compensation margin firms in Texas vs. firms in control states, analogous to Figure 5, but with the inclusion of Louisiana in the control states. Point estimates and ninety-five percent confidence intervals are estimated using a difference-in-differences specification given by Equation 6 with dependent variable defined by Equation 9. The sample is limited to firms we define to be on the COGS margin as described in Section 4.2. We further limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

Figure E.22: Percent Change in Corporate Tax Base, without New Mexico



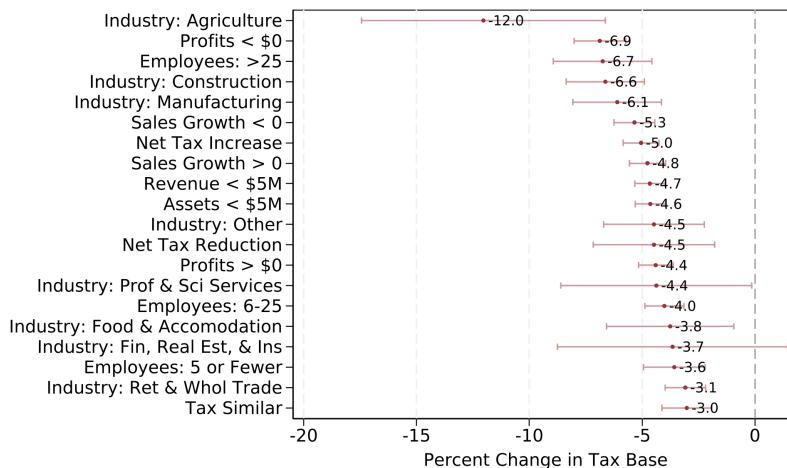
Notes: In this figure we drop New Mexico, which also has a gross-receipts style tax (but that did not change during the observation period and that does not exempt COGS or compensation) to show robustness to its exclusion. These figures display the estimated percent changes in the corporate tax base for COGS margin firms and compensation margin firms in Texas vs. firms in control states, analogous to Figure 5. Point estimates and ninety-five percent confidence intervals are estimated using a difference-in-differences specification given by Equation 6 with dependent variable defined by Equation 9. The sample is limited to firms we define to be on the COGS margin as described in Section 4.2. We further limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

Figure E.23: Change in Expense to Total Revenue Ratio, COGS Firms



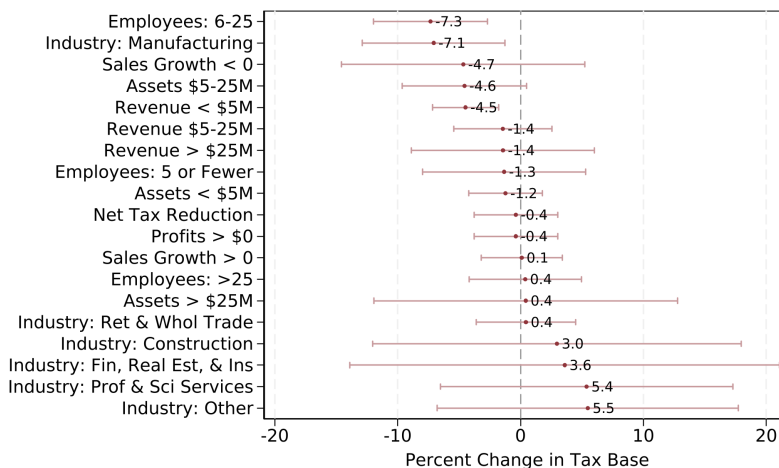
Notes: This figure displays the estimated percentage point change in the share of total expenses relative to total revenue by COGS margin firms, analogous to Figure 1. Point estimates and ninety-five percent confidence intervals are estimated using a difference-in-differences specification given by Equation 6. The sample is limited to firms we define to be on the COGS margin as described in Section 4.2. We further limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

Figure E.24: Percent Change in Tax Base for Small Firms, COGS Margin



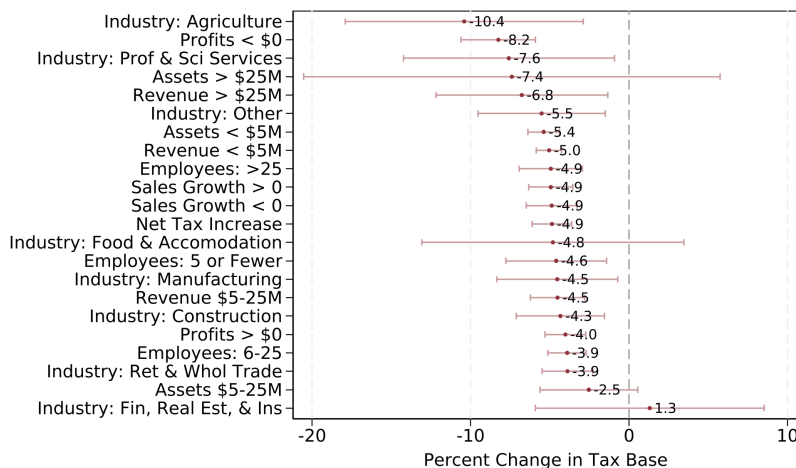
Notes: This figure displays the estimated percent change in the corporate tax base among small firms (less than \$5 million of revenue) on the COGS margin, broken down by various characteristics of the firm. Point estimates and ninety-five percent confidence intervals are estimated using a difference-in-differences specification given by Equation 7 with dependent variables defined as in Equation 9. The sample is limited to firms we define to be on the compensation margin as described in Section 4.2. We further limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

Figure E.25: Percent Change in Tax Base for Firms with Net Tax Reduction, COGS Margin



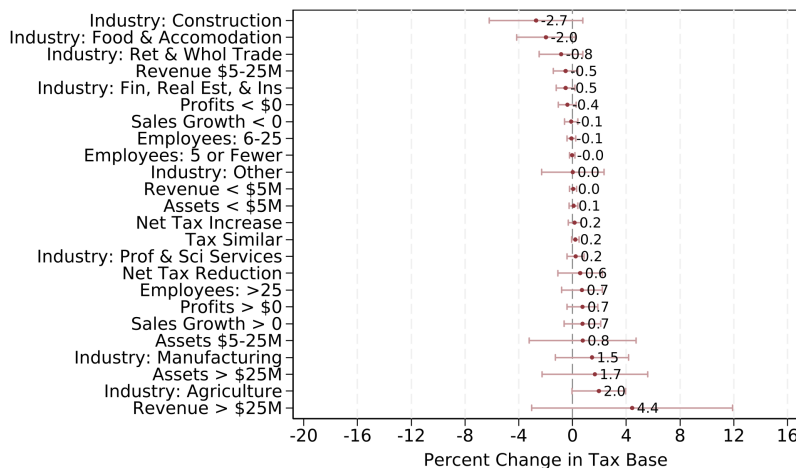
Notes: This figure displays the estimated percent change in the corporate tax base among firms experiencing a net tax reduction from the reform, on the COGS margin, broken down by various characteristics of the firm. Point estimates and ninety-five percent confidence intervals are estimated using a difference-in-differences specification given by Equation 7 with dependent variables defined as in Equation 9. The sample is limited to firms we define to be on the compensation margin as described in Section 4.2. We further limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

Figure E.26: Percent Change in Tax Base for Firms with Net Tax Increase, COGS Margin



Notes: This figure displays the estimated percent change in the corporate tax base among firms experiencing a net tax increase from the reform, on the COGS margin, broken down by various characteristics of the firm. Point estimates and ninety-five percent confidence intervals are estimated using a difference-in-differences specification given by Equation 7 with dependent variables defined as in Equation 9. The sample is limited to firms we define to be on the compensation margin as described in Section 4.2. We further limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.

Figure E.27: Percent Change in Tax Base for Compensation Margin, Heterogeneity Across Firms



Notes: This figure displays the estimated percent change in the corporate tax base among compensation margin firms, broken down by various characteristics of the firm. Point estimates and ninety-five percent confidence intervals are estimated using a difference-in-differences specification given by Equation 7 with dependent variables defined as in Equation 9. The sample is limited to firms we define to be on the compensation margin as described in Section 4.2. We further limit the population to Texas firms with at least 75% of W-2 wages paid in Texas, non-Texas firms with no more than 25% of wages paid in Texas, or firms with no W-2 matching. We exclude firms with more than \$100 million in total revenue (total income + COGS) in a given year. Estimates are weighted by total revenue.