Internet Appendix for

"Economic Stimulus at the Expense of Routine-Task Jobs"

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Section I of this Internet Appendix presents a simple model that supports the conceptual framework of the main text. Section II provides additional information on data and measures. Section III presents additional robustness results.

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I. A Simple Model

We present a simple two-period model to derive the effect of investment tax incentives on a firm's investment and labor decisions.

Firms use four factors of production. Three of these factors are labor inputs: routine labor, skilled labor, and nonroutine unskilled labor (L_R , L_S , and L_{NU} , respectively). The last factor is equipment capital (K). Routine labor (e.g., assembly line workers) and capital (e.g., robotic arms) perform routine tasks, whereas skilled labor (e.g., managers) perform abstract tasks that complement routine tasks in the production process. Autor, Levy, and Murnane (2003) emphasize that nonroutine unskilled labor (e.g., janitors) perform manual tasks that have limited opportunity to complement or substitute for capital. Following their lead, we assume that nonroutine unskilled labor does not interact with capital. Firms produce output with these inputs using the following technology:¹

$$Y = L_S^{\alpha} \left(L_R^{\mu} + K^{\mu} \right)^{\frac{\beta}{\mu}} + m L_{NU}^{\alpha+\beta},$$

where $\mu, \beta, \alpha \in (0, 1)$, and $\alpha + \beta < 1$. The last inequality captures decreasing returns to scale, meaning that a proportional increase in productive inputs leads output to increase by a smaller proportion.

The routine-task inputs are aggregated using a constant elasticity of substitution (CES) aggregator, given by $(L_R^{\mu} + K^{\mu})^{\frac{1}{\mu}}$. The elasticity of substitution between routine labor and capital is given by $\frac{1}{1-\mu}$ and, by assumption, is greater than one. The elasticity of substitution between skilled labor and aggregated routine task inputs is one. Firms are competitive and take as given the prices of all inputs (wages w_R , w_S , and w_{NU} and the purchase price of capital P).

Capital is a long-term asset, and depreciates at the rate δ . The tax code allows firms to deduct the cost of new investment from taxable income over time; however, the depreciation tax schedule is decoupled from the economic depreciation rate. Specifically, firms are allowed to deduct fraction η of new investment in the period in which the investment is made, and the remaining $(1 - \eta)$ in the next period. Variation in η captures the tax policy in this paper.

There are two periods. Firms begin period 1 with an existing capital stock K_1 ; they hire labor, produce, make investments for the next period, and pay taxes. The resulting cash flow of the firm

¹Autor and Dorn (2013) specify the technology for goods production as $L_S^{\alpha} (L_R^{\mu} + K^{\mu})^{\frac{\beta}{\mu}}$ and for service production as $mL_{NU}^{\alpha+\beta}$. We assume that the production of goods and service is additive in the aggregate.

in period 1 is given by

$$D_1 = (1 - \tau) (Y_1 - w_{R,1} L_{R,1} - w_{S,1} L_{S,1} - w_{NU,1} L_{NU,1}) - (1 - \tau \eta) PI,$$

where τ is the firm's marginal tax rate, I is the firm's investment for next period, and $\tau \eta PI$ is the depreciation tax shield. The next period's capital K_2 is determined by the capital accumulation rule

$$K_2 = (1 - \delta) K_1 + I.$$

In period 2, the firm produces and takes the remaining depreciation tax shield. For simplicity, we assume that the liquidation value of capital at the end of period 2 is zero.² The period 2 cash flow is given by

$$D_2 = (1 - \tau) (Y_2 - w_{R,2}L_{R,2} - w_{S,2}L_{S,2} - w_{NU,2}L_{NU,2}) + \tau (1 - \eta) PI.$$

The firm makes labor and investment decisions $(L_{R,1}, L_{S,1}, L_{NU,1}, I, L_{R,2}, L_{S,2}, L_{NU,2})$ to maximize firm value V, which is the sum of period 1 cash flow and the present value of the Period 2 cash flow

$$\max_{\{L_{R,1},L_{S,1},L_{NU,1},I,L_{R,2},L_{S,2},L_{NU,2}\}} V = D_1 + \frac{D_2}{r},$$

where r is the rate the firm uses to discount future cash flows. The first order conditions with respect to L_R, L_S, L_{NU} , and I give the optimality conditions

$$w_R = \beta L_S^{\alpha} L_R^{\mu-1} \left(L_R^{\mu} + K^{\mu} \right)^{\frac{\beta}{\mu} - 1}$$
 (IA1)

$$w_S = \alpha L_S^{\alpha - 1} \left(L_R^{\mu} + K^{\mu} \right)^{\frac{\beta}{\mu}} \tag{IA2}$$

$$w_{NU} = (\alpha + \beta) L_{NU}^{\alpha + \beta - 1}$$
 (IA3)

$$(1 - \tau \eta) Pr = (1 - \tau) \beta L_S^{\alpha} K^{\mu - 1} (L_R^{\mu} + K^{\mu})^{\frac{\beta}{\mu} - 1} + \tau (1 - \eta) P.$$
 (IA4)

Equations (IA1) to (IA3) show that the routine, skilled, and nonroutine unskilled wage rates are the marginal product of routine, skilled, and nonroutine unskilled labor, respectively. Equation (IA4) equates the first period's marginal cost of investing, $(1 - \tau \eta) P$, to the marginal benefit.

We are interested in understanding the implications of depreciation tax policy, captured by η

²While we assume that the liquidation value of capital at the end of period 2 is zero, none of the results depends on this liquidation value or the economic depreciation rate δ .

in this simple economy, for firms' investment and labor decisions. Higher η implies that a larger fraction of investment cost is deducted from taxable income in the period in which the investment is made. We therefore solve for $\frac{dI}{d\eta}$, $\frac{dL_{R,2}}{d\eta}$, $\frac{dL_{S,2}}{d\eta}$, and $\frac{dL_{NU,2}}{d\eta}$ to understand how η affects firms' investment and labor choices.³

PROPOSITION IA1: Given $\frac{\beta}{\mu} < (1 - \alpha)$, faster depreciation tax policy (i.e., higher η) leads to higher investment I and skilled employment L_S , and to lower routine employment L_R . Depreciation tax policy does not affect nonroutine unskilled employment L_{NU} .

Expressions for $\frac{dI_1}{d\eta}$, $\frac{dL_{S,2}}{d\eta}$, and $\frac{dL_{NU,2}}{d\eta}$ are derived from the first order conditions given in equations (IA1) to (IA4). While the model always generates positive responses of capital and skilled labor to investment tax incentives $(\frac{dI_1}{d\eta} > 0 \text{ and } \frac{dL_{S,2}}{d\eta} > 0)$, the response of routine labor to the incentives $(\frac{dL_R}{d\eta})$ depends critically on an assumption about the parameter values, $\frac{\beta}{\mu} < (1 - \alpha)$. This expression implies a relationship between the returns to scale $(\alpha + \beta)$ and the elasticity of substitution between capital and routine-task labor (μ) . We find that investment tax incentives lead to lower routine-task labor if either the returns to scale is relatively low or the elasticity of substitution is sufficiently high.

The interpretation of this condition is related to the dominance between the scale (income) effect and the substitution effect: the incentives that result in a lower effective price of capital lead to the substitution of routine labor for capital (the substitution effect) and also to an expansion of the scale of operations by increasing its inputs (the scale effect). The substitution effect dominates when the economy has sufficiently low returns to scale (which dampens the scale effect) or when capital and routine labor are strong substitutes (which strengthens the substitution effect). Last, tax incentives do not affect nonroutine unskilled employment ($\frac{dL_{NU,2}}{d\eta} = 0$) by construction.

The effect of η is conditional on firms' cost of capital. Because firms discount future deduction tax benefits at the rate of r (cost of capital), the higher the cost of capital, the more appealing the investment tax incentive is. If the cost of capital is zero (r=1), incentives do not affect investment or labor choices.

To keep the model simple, we refrain from including labor and capital adjustment frictions, such as adjustment costs or time to build. Adding such frictions and more time periods would generate additional implications for the timing of effects on labor that we found in the data. For example, if the installation of new capital requires multiple periods, the effects on labor could be

³Note that $L_{S,1}$ and $L_{R,1}$ are determined only by K_1 , which is given.

delayed and could also vary across types of labor.

Proof of Proposition IA1 In the following analysis, we suppress the second period index for notational simplicity unless otherwise indicated.

It is trivial to show that $\frac{dL_{NU}}{d\eta} = 0$. Equation (IA3) is the only first-order condition that is relevant for L_{NU} . Since L_{NU} does not interact with K, η has no effect on dL_{NU} .

We derive the remaining expressions in three steps. We first examine the relation between K and L_R and the relation between L_S and L_R . We then calculate $\frac{dL_R}{d\eta}$, which measures the sensitivity of a firm's routine employment to η . Last, we obtain the sign of $\frac{dK}{d\eta}$ and $\frac{dL_S}{d\eta}$.

Step 1: From equations (IA1) and (IA2), we have

$$K = \left[\psi_1 L_R^{\frac{-\mu(1-\alpha)(1-\mu)}{\mu-\alpha\mu-\beta}} - L_R^{\mu} \right]^{\frac{1}{\mu}}$$
 (IA5)

and

$$L_S = \psi_2 L_R^{\frac{-(1-\mu)\beta}{\mu-\alpha\mu-\beta}},\tag{IA6}$$

where

$$\psi_1 = \left[\left(\frac{\beta}{w_R} \right)^{1-\alpha} \left(\frac{\alpha}{w_S} \right)^{\alpha} \right]^{\frac{\mu}{\mu - \alpha\mu - \beta}}$$

and

$$\psi_2 = \left[\left(\frac{\beta}{w_R} \right)^{\beta} \left(\frac{\alpha}{w_S} \right)^{\mu - \beta} \right]^{\frac{\mu}{\mu - \alpha\mu - \beta}}.$$

Taking the derivative of K and L_S with respect to L_R ,

$$\frac{dK}{dL_R} = -K^{1-\mu} \left[\psi_1 \frac{(1-\alpha)(1-\mu)}{\mu - \alpha\mu - \beta} L_R^{\frac{-\mu(1-\alpha)(1-\mu)}{\mu - \alpha\mu - \beta} - 1} + L_R^{\mu-1} \right]$$

and

$$\frac{dL_S}{dL_R} = -\frac{(1-\mu)\beta}{\mu - \alpha\mu - \beta} \psi_2 L_R^{\frac{-(1-\mu)\beta}{\mu - \alpha\mu - \beta} - 1}.$$

Given that $\psi_1 > 0$, $\psi_2 > 0$, and $\frac{\beta}{\mu} < 1 - \alpha$, we have

$$\frac{dK}{dL_R} < 0$$
 and $\frac{dL_S}{dL_R} < 0$.

Step 2: Plugging K from equation (IA5) and L_S from equation (IA6) into the first-order

condition for I (equation (IA4)), we have

$$(1 - \tau \eta) Pr = (1 - \tau) w_R \left[\psi_1 L_R^{\frac{-\mu(1 - \alpha - \beta)}{\mu - \alpha \mu - \beta}} - 1 \right]^{\frac{\mu - 1}{\mu}} + \tau (1 - \eta) P.$$
 (IA7)

Implicitly differentiating equation (IA7) with respect to η yields

$$\tau P(1-r) = (1-\tau) w_R \begin{bmatrix} \frac{\mu-1}{\mu} \left(\psi_1 L_R^{\frac{-\mu(1-\alpha-\beta)}{\mu-\alpha\mu-\beta}} - 1 \right)^{-\frac{1}{\mu}} \\ \times \frac{-\mu(1-\alpha-\beta)}{\mu-\alpha\mu-\beta} \psi_1 L_R^{\frac{-\mu(1-\alpha-\beta)}{\mu-\alpha\mu-\beta}} - 1 \end{bmatrix} \frac{dL_R}{d\eta}.$$
 (IA8)

To understand the sign of $\frac{dL_R}{d\eta}$, we must understand the signs of the multiplicative components of equation (IA8). Since r>1 (the discount rate), the left-hand side is negative. On the right-hand side, $(1-\tau)w_R>0$, $\left(\psi_1L_R^{\frac{-\mu(1-\alpha-\beta)}{\mu-\alpha\mu-\beta}}-1\right)^{-\frac{1}{\mu}}=\frac{L_R}{K}>0$, $\psi_1>0$, $L_R^{\frac{-\mu(1-\alpha-\beta)}{\mu-\alpha\mu-\beta}-1}>0$, and $\mu-\alpha\mu-\beta>0$. Two terms are negative: $\frac{\mu-1}{\mu}<0$ and $-\mu(1-\alpha-\beta)<0$. The equation will be satisfied if and only if $\frac{dL_R}{d\eta}<0$.

Step 3: From $\frac{dL_R}{d\eta}$, $\frac{dK}{dL_R}$, and $\frac{dL_S}{dL_R}$, we have

$$\frac{dK}{d\eta} = \frac{dK}{dL_R} \frac{dL_R}{d\eta} > 0 \tag{IA9}$$

and

$$\frac{dL_S}{d\eta} = \frac{dL_S}{dL_R} \frac{dL_R}{d\eta} > 0. (IA10)$$

II. Additional Information on Data and Measurement

State-level data. We use various state-level controls in our empirical tests. The number of state job creation hiring credit programs is based on the data collected by Neumark and Grijalva (2013) and provided in their Appendix Table 1. The data end in 2012. We extend the last year's credit counts to 2013 and 2014 in our tests. The state unemployment rate is provided by the Bureau of Labor Statistics (BLS). State (real) GDP growth is downloaded from the Bureau of Economic Analysis (BEA) website. The state budget balance is compiled from State Government Finances, U.S. Census Bureau. Budget surplus is measured as the difference between "general revenue" and "general expenditure." The results of the gubernatorial elections are collected from

the Congressional Quarterly Voting and Elections Collection. State corporate income tax rates are taken from the Tax Foundation.⁴ State individual income tax rates are obtained from the NBER database of marginal state income tax rates.⁵

Computer investment data. Our primary investment measure is derived from the Computer Intelligence Technology Database (CiTDB), which is a privately sourced database owned by Infogroup (previously owned by Harte-Hanks) that provides detailed information on information technology (IT) spending at the establishment level. The database provides counts of many types of IT-related equipment, such as personal computers, servers, storage, printers, network LAN equipment, telecommunication platforms, and various types of software. The number of personal computers and servers are consistently surveyed over our sample period. Following the earlier literature (Brynjolfsson and Hitt (2003), Tambe, Hitt, and Brynjolfsson (2012), Bloom, Sadun, and Van Reenen (2012), and Bloom, Garicano, Sadun, and Van Reenen (2014)), we group personal computers and servers as computers and obtain the number of computers each establishment in each year.

Small business investment data. We use an additional database of small businesses, the Small Business Economic Trends survey, compiled by the National Federation of Independent Business (NFIB), which is a survey of roughly 900 NFIB member businesses each month. The survey asks whether the member firms invested in the past six months, along with the type of investment (equipment, vehicles, buildings, land, building improvements, and whether the property is purchased or leased). The data also provide information on the firms' location, employment, industry affiliation, and business entity type (C-corporationoration, S-corporation, sole proprietorship, or partnership). A drawback of this data set is that it does not provide a firm identifier, so we cannot control for firms' investment behavior in the previous year.

Occupational employment data. We construct measures related to employment from the microdata at the establishment–occupation level provided by the Occupational Employment Statistics (OES) program of the BLS. This data set covers surveys that track employment by occupations in approximately 200,000 establishments every six months over three-year cycles. These data

 $^{^4}$ See https://taxfoundation.org/state-corporate-income-tax-rates.

⁵Two states, New Hampshire and Tennessee, tax only interest and dividend income components of individual income. These rates are taken from the Tax Foundation.

represent, on average, 62% of the non-farm employment in the U.S. The data use the OES taxonomy and occupational classification with 828 detailed occupation definitions before 1999, and the Standard Occupational Classification (SOC) with 896 detailed occupation definitions after 1999. Besides occupational information, the microdata also list the counties in which the establishments are located and their industry affiliation. Each establishment is surveyed every three years to reduce the survey burden and improve response rates to the survey.

Measuring routine-task labor. We classify routine-task occupations based on a methodology described in Zhang (2019), who improves a commonly used procedure in the labor economics literature (see Autor, Levy, and Murnane (2003) and Autor and Dorn (2013)). We start with the Revised Fourth [1991] Edition of the U.S. Department of Labor's Dictionary of Occupational Titles (DOT) to obtain skill information for occupations classified at a very detailed level. For each DOT occupation, we select the occupation's required skill level in performing five categories of tasks: abstract analytic, abstract interactive, routine cognitive, routine manual, and nonroutine manual tasks. We rescale these skill levels so that they fall between 1 and 10. We then take the average of the routine cognitive and routine manual skill levels as the skill level required by the occupation for performing routine tasks. Similarly, we obtain the skill level required by each occupation for performing abstract tasks. We then aggregate the DOT occupations to the OES occupation level. The task skill measures for the OES occupations are the average of the skill measures for the corresponding DOT occupations following a weighting approach proposed by Autor, Levy, and Murnane (2003) using the April 1971 Current Population Survey (CPS) data. We then assign a routine-task intensity (RTI) score to each occupation following Autor and Dorn (2013), we sort occupations based on their RTI scores each year, and we create a time-varying classification of routine-task for occupations, as described in Section III.B of the main text.

III. Additional Robustness Results

Tables IA.I to IA.XXI provide additional robustness results.

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Table IA.I Share of Eligible Firms in Selected Industries

This table lists 15 NAICS four-digit industries with the highest, median, and lowest share of eligible firms in our sample in Panels A, B, and C, respectively. We compute the percentage of eligible firms (eligibility rate) in each industry in each year from 2003 and 2014 and report the time-series average of the rate for each industry. We also report the weight of each industry in our sample in two ways: percent of total establishments (establishment share) and percent of total employment (employment share) accounted for by each industry. We require the industry's establishment share to be above 0.01% of the total sample to be reported in this table.

NAICS	Title	Eligibility rate(%)	Est. share(%)	Emp. share(%)
			. ,	• ()
7225	Restaurants and Other Eating Places	100.00	1.34	0.55
2389	Other Specialty Trade Contractors	100.00	0.84	0.32
8122	Death Care Services	100.00	0.28	0.04
4531	Florists	100.00	0.14	0.02
7213	Rooming and Boarding Houses	100.00	0.04	0.00
3161	Leather and Hide Tanning and Finishing	100.00	0.01	0.00
2382	Building Equipment Contractors	99.98	2.00	1.16
2383	Building Finishing Contractors	99.95	1.24	0.54
2381	Foundation, Structure, and Building Exterior Contractors	99.93	1.17	0.55
7224	Drinking Places (Alcoholic Beverages)	99.86	0.18	0.04
4453	Beer, Wine, and Liquor Stores	99.85	0.25	0.03
6242	Community Food and Housing, and Emergency and Other Relief Services	99.77	0.42	0.13
6212	Offices of Dentists	99.63	0.70	0.08
8114	Personal and Household Goods Repair and Maintenance	99.58	0.25	0.03
	Panel B: Industries with Share of Eligible Fi	rms Around 50%		
3259	Other Chemical Product and Preparation Manufacturing	51.60	0.15	0.11
4521	Department Stores	51.55	1.04	2.14
4921	Couriers and Express Delivery Services	50.97	0.49	1.35
4529	Other General Merchandise Stores	50.82	0.65	1.63
7132	Gambling Industries	50.23	0.09	0.32
1151	Support Activities for Crop Production	50.19	0.32	0.55
4851	Urban Transit Systems	50.13	0.03	0.06
3131	Fiber, Yarn, and Thread Mills	50.10	0.04	0.10
2111	Oil and Gas Extraction	49.88	0.13	0.09
3117	Seafood Product Preparation and Packaging	49.80	0.03	0.03
5221	Depository Credit Intermediation	49.44	1.52	1.28
3362	Motor Vehicle Body and Trailer Manufacturing	49.08	0.13	0.18
3364	Aerospace Product and Parts Manufacturing	48.53	0.17	1.19
3342	Communications Equipment Manufacturing	47.47	0.08	0.10
4841	General Freight Trucking	47.43	0.52	0.77
-	Panel C: Industries with Lowest Share of	Eligible Firms		
5321	Automotive Equipment Rental and Leasing	22.18	0.23	0.09
4832	Inland Water Transportation	21.94	0.02	0.01
2122	Metal Ore Mining	19.66	0.02	0.09
4862	Pipeline Transportation of Natural Gas	17.47	0.02	0.01
5173	Telecommunications Resellers	16.67	0.08	0.17
4811	Scheduled Air Transportation	15.78	0.17	1.68
2212	Natural Gas Distribution	13.45	0.11	0.23
3221	Pulp, Paper, and Paperboard Mills	13.39	0.06	0.23
2121	Coal Mining	13.22	0.04	0.10
3241	Petroleum and Coal Products Manufacturing	12.72	0.09	0.11
6221	General Medical and Surgical Hospitals	11.39	1.18	12.83
3361	Motor Vehicle Manufacturing	10.38	0.04	0.83
2211	Electric Power Generation, Transmission and Distribution	5.10	0.47	0.72

Table IA.II Robustness to Fixed Definition of Routine-Task Labor

This table estimates the effects of changes in state Section 179 deduction limits on employment metrics by running the regressions in equations (2) and (4) using an alternative definition of routine-task labor. In this test, occupations are categorized based on their routineness in 2003, and their classification is held fixed rather than allowed to vary over time. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t. $Lagged\ Dep.Var$.represents the lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. *, ** and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

	Pan	el A: Employn	nent Regressio	ns	Pa	nel B: Wage E	Bill Regressions	3
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)
$\overline{\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}}$	-5.67* (3.12)	-26.60*** (8.16)	8.31 (6.52)	-5.55 (5.80)	-7.83** (3.68)	-27.36*** (8.28)	4.00 (6.32)	-6.97 (6.13)
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-5.32 (4.41)	-10.80 (10.66)	13.44* (6.76)	-8.47 (6.96)	-1.96 (4.98)	-7.02 (11.13)	9.88 (6.62)	-6.81 (7.61)
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	4.00 (3.85)	0.29 (10.37)	13.98* (7.26)	3.57 (8.08)	9.40** (3.68)	2.73 (9.66)	18.59*** (6.33)	8.02 (8.04)
$\Delta \mathrm{Limit}_{s,t}$	5.63* (3.11)	8.28 (9.25)	-1.21 (7.03)	13.87** (5.28)	9.20** (3.67)	7.86 (9.32)	3.59 (6.62)	16.03*** (5.69)
$\Delta \text{Limit}_{s,t+1}$	5.90 (4.72)	0.38 (9.41)	-6.35 (6.50)	14.95** (5.99)	2.98 (4.89)	-5.24 (9.70)	-2.45 (6.57)	13.58** (6.48)
$\Delta \text{Limit}_{s,t+2}$	-2.91 (3.03)	-3.66 (8.01)	-7.14 (6.80)	-1.04 (8.10)	-7.66** (2.94)	-6.14 (7.63)	-11.41^* (5.94)	-5.29 (8.25)
Lagged Dep.Var.	-0.15^{***} (0.01)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40^{***} (0.01)	-0.18*** (0.00)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40*** (0.01)
Observations Adjusted R^2	329,943 0.11	269,784 0.23	302,873 0.20	304,617 0.20	329,943 0.11	269,784 0.23	302,873 0.19	304,617 0.20

Table IA.III Robustness to Perturbations of the Eligibility Measure (Increasing the Cutoff Threshold for Eligible Investment by 10%)

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) using alternative eligibility criteria. In this test, the cutoff threshold for expected investment is increased 10% compared to the baseline definition (see definition of eligibility in Section II.B. The dependent variables are annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t. $Lagged\ Dep.\ Var.$ represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

	Panel A: Computer Investmen	
	Computer Investments (1)	Δ IT Intensity (2)
$\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}$	6.03* (3.07)	11.69*** (3.91)
$\Delta \mathrm{Limit}_{s,t}$	1.05 (3.67)	-4.21 (3.59)
Lagged Dep.Var.	-0.13*** (0.00)	-0.17*** (0.00)
Observations Adjusted R^2	353,912 0.21	342,420 0.21
	Danal D. Emplayment Damagiana	Danal C. Wana Dill Dannagiana

	Pan	el B: Employn	nent Regressio	ns	Pa	nel C: Wage E	Bill Regressions	S
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)
$\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}$	-3.89 (3.00)	-23.30*** (7.30)	9.10 (6.54)	-4.47 (5.88)	-6.00* (3.56)	-24.39*** (7.58)	5.15 (6.65)	-5.78 (5.97)
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-8.46^* (4.21)	-9.12 (11.18)	13.11* (6.98)	-10.34 (6.72)	-4.84 (4.76)	-6.26 (11.77)	10.23 (6.78)	-9.65 (7.33)
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	3.11 (3.72)	1.99 (9.97)	11.21 (6.98)	4.55 (8.15)	8.25** (3.61)	3.87 (9.40)	15.61** (6.18)	8.79 (7.89)
$\Delta \mathrm{Limit}_{s,t}$	4.00 (2.81)	4.67 (8.51)	-1.74 (7.10)	12.73** (5.38)	7.51** (3.42)	4.49 (8.73)	2.72 (6.98)	14.83*** (5.42)
$\Delta \text{Limit}_{s,t+1}$	8.81** (4.36)	-0.19 (9.15)	-5.74 (7.01)	16.44*** (5.89)	5.68 (4.56)	-5.06 (9.55)	-2.51 (7.06)	15.95** (6.38)
$\Delta \text{Limit}_{s,t+2}$	-2.12 (3.00)	-5.37 (8.05)	-4.56 (6.29)	-2.28 (8.23)	-6.59** (2.96)	-7.30 (7.81)	-8.60 (5.67)	-6.30 (8.17)
Lagged Dep.Var.	-0.15^{***} (0.01)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40^{***} (0.01)	-0.18*** (0.00)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40*** (0.01)
Observations Adjusted R^2	329,943 0.11	269,784 0.23	302,873 0.20	304,617 0.20	329,943 0.11	269,784 0.23	302,873 0.20	304,617 0.20

Table IA.IV Robustness to Perturbations of the Eligibility Measure (Increasing the Cutoff Threshold for Eligible Investment by 5%)

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) using alternative eligibility criteria. In this test, the cutoff threshold for expected investment is increased 5% compared to the baseline definition (see definition of eligibility in Section II.B. The dependent variables are annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t. $Lagged\ Dep.\ Var$. represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. * , ** , and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

Panel A: Computer Investment					
	Computer Investments (1)	Δ IT Intensity (2)			
$\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}$	6.70** (2.81)	12.36*** (3.98)			
$\Delta \text{Limit}_{s,t}$	0.55 (3.48)	-4.75 (3.64)			
Lagged Dep.Var.	-0.13*** (0.00)	$-0.17^{***} $ (0.00)			
Observations Adjusted R^2	353,912 0.21	342,420 0.21			

	Pan	el B: Employn	nent Regressio	ns	Pa	nel C: Wage I	Bill Regressions	5
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)
$\overline{\Delta_{\text{Limit}_{s,t}} \times \text{Eligible}_{j,t}}$	-4.70 (3.20)	-24.41*** (8.30)	8.71 (6.73)	-4.03 (5.68)	-6.64* (3.78)	-25.57*** (8.35)	4.56 (6.80)	-5.10 (6.04)
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-6.11 (4.27)	-10.48 (10.82)	14.85** (7.06)	-7.87 (7.14)	-2.25 (4.82)	-6.97 (11.39)	11.78* (6.74)	-6.67 (7.82)
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	3.69 (3.86)	1.00 (10.55)	13.19* (7.07)	2.51 (8.37)	9.20** (3.81)	3.43 (9.87)	17.77*** (6.31)	7.08 (8.14)
$\Delta \mathrm{Limit}_{s,t}$	4.75 (3.08)	5.73 (9.10)	-1.43 (7.18)	12.38** (5.22)	8.12** (3.72)	5.62 (9.19)	3.21 (7.02)	14.27** (5.59)
$\Delta \text{Limit}_{s,t+1}$	6.62 (4.49)	0.91 (9.30)	-7.43 (6.85)	14.19** (6.26)	3.27 (4.67)	-4.54 (9.61)	-4.02 (6.80)	13.25* (6.76)
$\Delta \text{Limit}_{s,t+2}$	-2.55 (3.04)	-4.42 (8.48)	-6.27 (6.43)	-0.40 (8.40)	-7.39** (3.03)	-6.85 (8.21)	-10.50^* (5.69)	-4.73 (8.36)
Lagged Dep.Var.	-0.15^{***} (0.01)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40^{***} (0.01)	-0.18*** (0.00)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40*** (0.01)
Observations Adjusted R^2	329,943 0.11	269,784 0.23	302,873 0.20	304,617 0.20	329,943 0.11	269,784 0.23	302,873 0.20	304,617 0.20

Table IA.V Robustness to Perturbations of the Eligibility Measure (Decreasing the Cutoff Threshold for Eligible Investment by 5%)

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) using alternative eligibility criteria. In this test, the cutoff threshold for expected investment is decreased 5% compared to the baseline definition (see definition of eligibility in Section II.B. The dependent variables are annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t. $Lagged\ Dep.\ Var$. represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. * , ** , and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

Panel A: Computer Investment					
	Computer Investments (1)	Δ IT Intensity (2)			
$\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}$	5.95* (3.20)	13.08*** (4.02)			
$\Delta \text{Limit}_{s,t}$	1.88 (3.55)	-5.51 (3.44)			
Lagged Dep.Var.	-0.13*** (0.00)	$-0.17^{***} (0.00)$			
Observations Adjusted R^2	353,912 0.21	342,420 0.21			

	Pan	el B: Employn	nent Regressio	ns	Pa	nel C: Wage I	Bill Regressions	s
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)
$\overline{\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}}$	-4.97 (3.14)	-21.77*** (7.98)	7.00 (6.49)	-3.20 (5.95)	-7.01* (3.69)	-23.38*** (8.10)	2.95 (6.19)	-4.26 (6.11)
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-3.31 (4.49)	-6.85 (10.83)	14.23** (6.76)	-6.69 (6.87)	-0.17 (5.05)	-3.02 (11.27)	10.95 (6.74)	-5.17 (7.34)
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	4.03 (3.92)	3.12 (10.60)	12.89* (7.51)	1.97 (8.24)	9.61** (3.88)	5.70 (9.94)	17.22** (6.46)	6.81 (8.51)
$\Delta \mathrm{Limit}_{s,t}$	4.92 (3.22)	3.57 (9.30)	-0.11 (6.84)	11.57** (5.72)	8.42** (3.71)	3.86 (9.29)	4.49 (6.18)	13.47** (5.80)
$\Delta \text{Limit}_{s,t+1}$	4.11 (4.77)	-2.18 (9.43)	-7.08 (6.72)	13.16** (6.09)	1.37 (4.98)	-7.93 (9.65)	-3.44 (6.84)	11.93* (6.45)
$\Delta \text{Limit}_{s,t+2}$	-2.82 (2.99)	-6.23 (8.17)	-6.08 (7.14)	0.16 (8.36)	-7.77** (2.91)	-8.82 (7.72)	-10.12 (6.14)	-4.46 (8.73)
Lagged Dep.Var.	-0.15^{***} (0.01)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40^{***} (0.01)	-0.18*** (0.00)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40*** (0.01)
Observations Adjusted R^2	329,943 0.11	269,784 0.23	302,873 0.20	304,617 0.20	329,943 0.11	269,784 0.23	302,873 0.19	304,617 0.20

Table IA.VI Robustness to Perturbations of the Eligibility Measure (Decreasing the Cutoff Threshold for Eligible Investment by 10%)

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) using alternative eligibility criteria. In this test, the cutoff threshold for expected investment is decreased 10% compared to the baseline definition (see definition of eligibility in Section II.B. The dependent variables are annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t. $Lagged\ Dep.\ Var$. represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. * , ** , and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

Panel A: Computer Investment						
Computer Investments (1)	Δ IT Intensity (2)					
3.68 (3.15)	13.53*** (4.00)					
$\frac{2.54}{(3.48)}$	-5.94 (3.56)					
-0.13*** (0.00)	-0.17^{***} (0.00)					
353,912 0.21	342,420 0.21					
	Computer Investments (1) 3.68 (3.15) 2.54 (3.48) -0.13*** (0.00) 353,912					

	Pan	el B: Employn	nent Regressio	ns	Pa	nel C: Wage I	Bill Regressions	5
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)
$\overline{\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}}$	-4.00 (3.36)	-19.21** (8.15)	5.62 (6.80)	-0.89 (6.08)	-6.32 (3.92)	-21.24** (8.35)	1.83 (6.73)	-1.15 (6.34)
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-1.75 (4.59)	-6.69 (11.71)	15.62** (6.83)	-4.67 (6.72)	0.87 (5.12)	-3.08 (12.20)	11.70* (6.88)	-3.01 (7.10)
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	5.94 (3.97)	3.51 (10.45)	17.03** (7.77)	2.46 (8.43)	11.05*** (3.88)	6.04 (9.78)	21.02*** (6.87)	6.66 (8.62)
$\Delta \mathrm{Limit}_{s,t}$	4.07 (3.46)	1.43 (9.18)	1.07 (7.22)	9.53 (6.03)	7.82* (3.96)	2.10 (9.31)	5.45 (6.79)	10.73* (5.95)
$\Delta \text{Limit}_{s,t+1}$	2.83 (4.77)	-2.18 (10.01)	-8.27 (6.65)	11.49* (6.01)	0.55 (4.93)	-7.75 (10.20)	-4.06 (6.95)	10.12 (6.31)
$\Delta \text{Limit}_{s,t+2}$	-4.61 (3.02)	-6.60 (8.12)	-9.91 (7.37)	-0.31 (8.64)	-9.16*** (2.76)	-9.16 (7.64)	-13.66** (6.46)	-4.37 (8.90)
Lagged Dep.Var.	-0.15^{***} (0.01)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40^{***} (0.01)	-0.18*** (0.00)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40*** (0.01)
Observations Adjusted R^2	329,943 0.11	269,784 0.23	302,873 0.20	304,617 0.20	329,943 0.11	269,784 0.23	302,873 0.19	304,617 0.20

Table IA.VII Robustness to Excluding Switching States

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) on a subsample that excludes observations from state—years in which the state switched its adoption of the federal Section 179 laws. The dependent variables are annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t (see definition of eligibility in Section II.B. $Lagged\ Dep.\ Var$. represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. * , ** , and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

Panel A: Computer Investment

		Com	puter Investmen (1)	ts			Δ IT Intensity (2)	7		
$\overline{\Delta_{\text{Limit}_{s,t} \times \text{Eligible}_{j,t}}}$			6.54* (3.49)				17.99** (6.99)			
$\Delta \mathrm{Limit}_{s,t}$			3.52 (5.33)				-7.70 (7.26)			
Lagged Dep.Var.			-0.13*** (0.00)				$-0.17^{***} (0.00)$			
Observations Adjusted R^2			$331,248 \\ 0.21$				$320,614 \\ 0.21$			
	Pan	el B: Employn	nent Regressio	ns	Pa	nel C: Wage I	R S NU (6) (7) (8)			
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)					
Δ Limit _{s,t} × Eligible _{j,t}	-9.51* (4.80)	-36.02*** (10.13)	-2.93 (6.87)	-0.19 (7.50)	-10.60* (5.33)	-35.02*** (10.54)	-6.19 (7.22)	-3.36 (7.36)		
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-5.53 (6.61)	-9.11 (11.00)	5.90 (9.35)	-7.90 (9.07)	-2.95 (7.40)	-5.86 (11.59)	$4.40 \\ (9.74)$	-7.73 (9.89)		
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	7.59 (5.04)	5.33 (12.90)	24.11*** (8.12)	-7.43 (10.01)	12.03** (5.21)	4.21 (12.60)	26.41*** (8.02)	-3.36 (9.42)		
$\Delta \mathrm{Limit}_{s,t}$	7.72 (5.46)	26.01** (9.99)	4.44 (7.14)	$6.00 \\ (8.41)$	10.71* (6.12)	25.35** (10.47)	8.70 (7.24)	10.52 (8.65)		
$\Delta \text{Limit}_{s,t+1}$	8.20 (6.77)	5.00 (11.07)	-0.68 (8.84)	22.37** (8.70)	4.92 (7.06)	-1.04 (11.56)	1.13 (9.09)	22.29** (9.20)		
$\Delta \text{Limit}_{s,t+2}$	-4.72 (4.39)	-13.11 (10.46)	-9.35 (9.07)	12.00 (9.31)	-8.55^* (4.79)	-12.54 (10.66)	-11.17 (9.04)	8.02 (9.10)		
Lagged Dep.Var.	-0.15*** (0.01)	-0.45^{***} (0.00)	-0.40*** (0.01)	-0.40^{***} (0.01)	-0.18*** (0.00)	-0.45*** (0.00)	-0.40^{***} (0.01)	-0.40*** (0.01)		
Observations Adjusted R^2	273,624 0.11	223,103 0.23	250,556 0.21	252,073 0.20	273,624 0.11	223,103 0.23	250,556 0.20	252,073 0.21		

 ${\bf Table~IA.VIII} \\ {\bf Robustness~to~Excluding~Establishments~with~Fewer~than~Five~Employees}$

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) on a subsample that excludes establishments with fewer than five employees. The dependent variables are the annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t (see definition of eligibility in Section II.B. $Lagged\ Dep.\ Var.$ represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as $(1,\ 4)$, $(5,\ 9)$, $(10,\ 14)$, $(15,\ 24)$, $(25,\ 49)$, $(50,\ 99)$, $(100,\ 199)$, and 200 or more. Standard errors are clustered at the state level and reported in parentheses. *, **, and **** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

		Pa	nel A: Investn	nent Regressio	ns				
		Com	puter Investmen (1)	ts			Δ IT Intensity (2)	7	
$\overline{\Delta_{\text{Limit}_{s,t} \times \text{Eligible}_{j,t}}}$			5.63* (2.99)				12.91*** (4.13)		
$\Delta \mathrm{Limit}_{s,t}$			0.54 (3.53)				-5.85 (3.66)		
Lagged Dep.Var.			-0.13*** (0.00)				$-0.17^{***} (0.00)$		
Observations Adjusted R^2			347,319 0.21				336,335 0.20		
	Pan	el B: Employn	nent Regressio	ns	Panel C: Wage Bill Regressions				
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)	
Δ Limit _{s,t} × Eligible _{j,t}	-5.46* (3.02)	-23.82*** (8.05)	9.15 (6.48)	-6.22 (5.64)	-7.31* (3.66)	-24.68*** (8.14)	4.90 (6.28)	-7.49 (5.96)	
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-5.74 (4.41)	-9.01 (10.33)	13.32* (6.75)	-8.77 (6.99)	-2.24 (4.96)	-5.48 (10.75)	9.63 (6.60)	-6.89 (7.66)	
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	3.51 (3.89)	0.24 (10.26)	13.24* (7.46)	3.96 (8.24)	9.06** (3.73)	2.83 (9.54)	18.14*** (6.53)	$8.25 \\ (8.17)$	
$\Delta \mathrm{Limit}_{s,t}$	5.67* (3.14)	6.12 (9.39)	-0.74 (7.06)	13.17** (5.43)	9.24** (3.70)	5.96 (9.41)	4.06 (6.66)	15.51** (5.82)	
$\Delta \text{Limit}_{s,t+1}$	5.81 (4.62)	0.08 (9.08)	$ \begin{array}{r} -6.21 \\ (6.37) \end{array} $	14.43** (6.02)	2.89 (4.80)	-5.29 (9.25)	$ \begin{array}{r} -2.40 \\ (6.42) \end{array} $	13.04* (6.52)	
$\Delta \text{Limit}_{s,t+2}$	-2.54 (3.04)	-2.95 (8.10)	-7.46 (6.76)	-1.38 (8.12)	-7.27** (2.91)	-5.54 (7.66)	-11.73^* (5.92)	-5.72 (8.28)	
Lagged Dep.Var.	-0.14*** (0.01)	-0.44*** (0.00)	-0.39*** (0.01)	-0.39*** (0.01)	-0.17*** (0.00)	-0.45*** (0.00)	-0.38*** (0.01)	-0.39*** (0.01)	
Observations Adjusted R^2	310,988 0.11	259,984 0.22	290,036 0.19	291,037 0.20	310,988 0.10	259,984 0.23	290,036 0.18	291,037 0.20	

Table IA.IX Main Results with Establishment Fixed Effects

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by adding establishment fixed effects to the regressions in equations (2) and (4). The dependent variables are the annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t (see definition of eligibility in Section II.B. $Lagged\ Dep.\ Var.$ represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

		Pa	nel A: Investm	nent Regression	ns				
		Co		Δ IT Intensity (2)					
$\overline{\Delta \text{Limit179}_t \times \text{Eligible}_{j,t}}$			8.48** (3.45)				11.74** (5.56)		
$\Delta \text{Limit} 179_t$			-1.83 (3.43)		-4.61 (4.08)				
Lagged Dep.Var.				-0.25^{**} , (0.00)	k				
Observations Adjusted R^2				$273,\!804 \\ 0.16$					
	Pan	el B: Employr	nent Regressio	ns	Pa	anel C: Wage I	Bill Regression	s	
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)	
$\overline{\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}}$	-5.77 (4.17)	-34.19** (14.16)	11.24 (12.58)	-13.27 (10.68)	-3.93 (4.41)	-33.04** (14.20)	8.94 (11.14)	-11.62 (10.63)	
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-8.37 (6.30)	-19.77 (12.80)	19.00* (10.04)	-9.22 (9.53)	-5.21 (6.23)	-16.03 (12.68)	13.43* (9.88)	-11.18 (7.07)	
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	-2.86 (5.23)	15.27 (13.80)	16.34* (9.62)	10.30 (9.11)	1.94 (5.67)	18.62 (13.57)	10.69 (9.15)	15.26 (8.95)	
$\Delta \mathrm{Limit}_{s,t}$	10.62*** (3.86)	27.39* (14.70)	3.18 (12.05)	24.11** (10.47)	7.66* (3.99)	23.80 (14.79)	4.27 (9.87)	21.22** (9.98)	
$\Delta \text{Limit}_{s,t+1}$	7.94 (6.41)	7.28 (10.55)	-21.03** (10.09)	15.41** (7.52)	$ \begin{array}{c} 1.22 \\ (6.44) \end{array} $	2.29 (11.08)	-18.85^* (9.51)	15.67* (7.97)	
$\Delta \text{Limit}_{s,t+2}$	4.11 (4.61)	-8.80 (10.43)	-7.27 (9.11)	-1.13 (12.31)	-4.45 (5.58)	-11.89 (11.01)	-15.19 (9.14)	-8.22 (12.40)	
Lagged Dep.Var.	-0.23*** (0.00)	-0.59*** (0.00)	-0.57^{***} (0.01)	-0.55*** (0.01)	-0.35*** (0.00)	-0.60*** (0.00)	-0.57^{***} (0.01)	-0.56*** (0.01)	
Observations Adjusted R^2	186,196 0.36	149,382 0.18	170,219 0.20	170,816 0.20	186,196 0.31	149,382 0.18	170,219 0.20	170,816 0.20	

Table IA.X Main Results with State-Year Fixed Effects

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by adding state fixed effects to the regressions in equations (2) and (4) with state—year fixed effects. The dependent variables are the annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t (see definition of eligibility in Section II.B. $Lagged\ Dep.Var$. represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. The standalone variable $\Delta Limit_{s,t}$ drops out of the regression due to state—year fixed effects. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

		Pa	nel A: Investm	nent Regressio	ns					
		Com			Δ IT Intensity (2)					
$\overline{\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}}$			7.05** (2.82)				12.20*** (4.51)			
Lagged Dep.Var.		-0.13^{***} (0.00) (0.00)								
Observations Adjusted R^2			353,912 0.21		342,420 0.21					
	Pan	el B: Employn	nent Regressio	ns	Panel C: Wage Bill Regressions					
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)		
$\overline{\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}}$	-6.18* (3.38)	-22.65*** (8.44)	3.95 (6.94)	-1.24 (5.62)	-8.09* (4.05)	-23.91*** (8.65)	0.75 (7.09)	-3.16 (5.93)		
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-5.46 (4.48)	-8.18 (10.80)	12.58* (6.56)	-8.11 (7.25)	-2.62 (5.07)	-5.51 (11.34)	8.83 (6.47)	-6.90 (7.82)		
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	$3.60 \\ (4.20)$	-0.34 (9.82)	13.81** (6.81)	0.87 (7.76)	8.47** (4.05)	1.66 (9.20)	17.39*** (6.13)	5.13 (7.53)		
Lagged Dep.Var.	-0.15^{***} (0.01)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40^{***} (0.01)	-0.18*** (0.00)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40^{***} (0.01)		
Observations Adjusted R^2	329,943 0.11	269,784 0.23	302,873 0.21	304,617 0.20	329,943 0.11	269,784 0.23	302,873 0.20	304,617 0.20		

Table IA.XI

Main Results Controlling for the Interaction of Section 179 Eligibility and State Bonus Adoption Dummy

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) while also controlling for the interaction between Section 179 eligibility of the firm and the state bonus depreciation adoption dummy. The dependent variables are annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable Eligible_{i,t} is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t (see definition of eligibility in Section II.B. The variable $BonusDummy_t$ is a dummy variable that equals one if the state adopts the federal bonus depreciation tax incentive in year t. Lagged Dep. Var. represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

Panel A: Investment Regressions

		Com	puter Investmen (1)	nts		Δ IT Intensity (2)		
${\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}}$			7.12** (3.05)				15.23*** (4.20)	
Δ Bonus Dummy $_t$ × Eligible $_{j,t}$			-0.24 (0.60)			-0.87 (1.02)		
$\Delta \mathrm{Limit}_{s,t}$			$0.22 \\ (3.50)$				-6.80* (3.52)	
Lagged Dep.Var.			-0.13*** (0.00)				-0.17^{***} (0.00)	
Observations Adjusted R^2				342,420 0.21				
	Pane	el B: Employn	nent Regressi	ons	Pai	nel C: Wage I	Bill Regression	ns
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)
${\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}}$	-5.52^* (3.15)	-25.81^{***} (8.68)	10.06 (6.47)	-4.23 (5.89)	-7.47^{**} (3.70)	-26.13^{***} (8.74)	5.35 (6.31)	-5.55 (6.24)
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	$ \begin{array}{c} -6.07 \\ (4.36) \end{array} $	-11.09 (10.73)	15.22** (6.62)	-10.22 (6.94)	-2.79 (4.84)	-7.50 (11.06)	11.09* (6.49)	-8.72 (7.58)
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	3.47 (3.89)	-0.54 (10.25)	14.60** (6.83)	1.86 (8.57)	8.68** (3.69)	1.61 (9.54)	19.11*** (5.89)	6.23 (8.43)
Δ Bonus Dummy $_t$ × Eligible $_{j,t}$	0.12 (0.99)	$ \begin{array}{c} 2.91 \\ (2.07) \end{array} $	-2.61 (1.80)	0.19 (1.32)	0.00 (1.06)	$ \begin{array}{c} 2.15 \\ (2.18) \end{array} $	-2.05 (1.74)	$0.30 \\ (1.41)$
Δ Bonus Dummy $_{t+1}$ × Eligible $_{j,t+1}$	0.31 (0.82)	$\frac{1.16}{(2.08)}$	-1.78 (1.64)	0.53 (2.13)	0.14 (0.83)	0.39 (2.03)	-1.18 (1.55)	$0.47 \\ (1.92)$
Δ Bonus Dummy $_{t+2}$ × Eligible $_{j,t+2}$	$0.75 \\ (0.81)$	1.09 (2.21)	-0.66 (2.16)	2.12 (1.41)	$1.04 \\ (0.97)$	$1.70 \\ (2.20)$	-0.45 (2.03)	2.38* (1.36)
$\Delta \mathrm{Limit}_{s,t}$	5.48* (3.14)	6.97 (9.35)	-2.57 (7.12)	12.56** (5.50)	8.89** (3.67)	6.18 (9.43)	$2.55 \\ (6.72)$	14.68** (5.88)
$\Delta \mathrm{Limit}_{s,t+1}$	$6.50 \\ (4.68)$	$ \begin{array}{c} 1.27 \\ (9.33) \end{array} $	-7.68 (6.50)	16.07** (6.13)	$3.64 \\ (4.78)$	-4.25 (9.53)	-3.37 (6.57)	14.84** (6.65)
$\Delta \text{Limit}_{s,t+2}$	-2.48 (3.05)	-3.22 (8.00)	-7.52 (6.82)	$0.00 \\ (8.57)$	-7.07^{**} (2.93)	-5.42 (7.62)	-11.74^* (5.95)	-4.19 (8.66)
Lagged Dep.Var.	-0.15^{***} (0.01)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40^{***} (0.01)	-0.18*** (0.00)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40^{***} (0.01)
Observations Adjusted R^2	329,943 0.11	269,784 0.23	302,873 0.20	304,617 0.20	329,943 0.11	269,784 0.23	302,873 0.19	304,617 0.20

Table IA.XII

Main Results Controlling for the Interaction of Section 179 Eligibility and State GDP Growth

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) while also controlling for the interaction between Section 179 eligibility of the firm and the change in the Gross State Product (GSP). The dependent variables are annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{i,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t (see definition of eligibility in Section II.B. The variable ΔGSP_t is the percent change in the GSP in year t. Lagged Dep. Var. represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. * , ** , and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

Panel A: Investment Regressions

		Con	nputer Investmen (1)	Computer Investments (1)							
$\overline{\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}}$			6.83** (2.86)				13.56*** (4.20)				
$\Delta \ \mathrm{GSP}_t \ \times \ \mathrm{Eligible}_{j,t}$			0.03 (0.06)			-0.04 (0.07)					
$\Delta \mathrm{Limit}_{s,t}$			$0.39 \\ (3.49)$			-5.66 (3.66)					
Lagged Dep.Var.			-0.13*** (0.00)				-0.17^{***} (0.00)				
Observations Adjusted R^2			353,912 0.21				342,420 0.21				
	Pan	el B: Employn	ent Regression	ns	Pa	anel C: Wage I	Bill Regressions	<u> </u>			
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)			
$\overline{\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}}$	-5.56* (3.10)	-24.39*** (8.33)	8.66 (6.64)	-4.72 (5.68)	-7.77** (3.64)	-25.48*** (8.43)	4.28 (6.44)	-6.18 (5.99)			
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-5.24 (4.44)	-9.39 (10.40)	13.62* (6.82)	-8.32 (6.81)	-1.68 (5.01)	-5.78 (10.79)	10.21 (6.73)	-6.50 (7.49)			
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	3.83 (3.79)	0.52 (10.40)	13.51* (7.08)	3.09 (8.07)	9.11** (3.52)	2.92 (9.59)	18.14*** (6.08)	7.61 (8.01)			
$\Delta \ \mathrm{GSP}_t \ \times \ \mathrm{Eligible}_{j,t}$	-0.01 (0.08)	-0.01 (0.23)	-0.08 (0.23)	-0.11 (0.16)	-0.04 (0.09)	-0.02 (0.24)	-0.09 (0.26)	-0.12 (0.16)			
$\Delta \ \mathrm{GSP}_{t+1} \times \mathrm{Eligible}_{j,t+1}$	0.23** (0.09)	$0.03 \\ (0.18)$	0.31* (0.18)	0.19 (0.17)	0.29** (0.12)	0.11 (0.19)	0.39* (0.20)	0.17 (0.20)			
$\Delta \ \mathrm{GSP}_{t+2} \times \mathrm{Eligible}_{j,t+2}$	$0.00 \\ (0.11)$	$0.02 \\ (0.31)$	0.01 (0.16)	-0.11 (0.16)	$0.15 \\ (0.10)$	0.12 (0.33)	$0.12 \\ (0.16)$	$0.04 \\ (0.15)$			
$\Delta \mathrm{Limit}_{s,t}$	5.58* (3.09)	5.84 (9.50)	-1.37 (7.07)	13.04** (5.32)	9.21** (3.64)	5.69 (9.62)	3.51 (6.67)	15.28** (5.74)			
$\Delta \text{Limit}_{s,t+1}$	5.85 (4.76)	-0.00 (9.22)	$ \begin{array}{c} -6.41 \\ (6.65) \end{array} $	14.59** (6.01)	$2.78 \\ (4.97)$	-5.52 (9.46)	-2.66 (6.76)	13.12* (6.53)			
$\Delta \text{Limit}_{s,t+2}$	-2.81 (3.01)	-4.07 (8.22)	$ \begin{array}{c} -6.73 \\ (6.71) \end{array} $	-1.02 (8.13)	-7.48** (2.89)	-6.50 (7.75)	-11.04^* (5.82)	-5.32 (8.29)			
Lagged Dep.Var.	-0.15***	-0.45***	-0.40***	-0.40***	-0.18***	-0.45***	-0.40***	-0.40***			

304,617

(0.00)

329,943

(0.00)

269,784

(0.01)

302.873

(0.01)

304,617

(0.01)

302,873

(0.01)

329,943

Observations

(0.00)

269,784

Table IA.XIII Main Results Excluding Multi-Establishment Eligible Firms

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) on a subsample that excludes multi-unit eligible firms. The dependent variables are annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t (see definition of eligibility in Section II.B. $Lagged\ Dep.\ Var.$ represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. * , ** , and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

		Pa	nel A: Investn	nent Regression	ns						
		Con	Δ IT Intensity (2)								
$\overline{\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}}$			7.63** (3.48)				14.77*** (4.67)				
$\Delta \mathrm{Limit}_{s,t}$				-5.93^* (3.51)							
Lagged Dep.Var.		-0.13^{***} (0.00) -0.17^{***} (0.00)									
Observations Adjusted \mathbb{R}^2			$273,\!217 \\ 0.16$			$264,341 \\ 0.16$					
	Pan	el B: Employn	nent Regressio	ns	Pa	anel C: Wage I	Bill Regression	s			
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)			
Δ Limit _{s,t} × Eligible _{j,t}	-6.77^* (3.57)	-19.57** (8.90)	8.73 (5.65)	-7.13 (6.79)	-8.76** (3.55)	-21.43** (8.83)	3.83 (5.34)	-8.46 (7.36)			
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-0.51 (4.51)	-4.19 (11.47)	17.87** (7.67)	-5.87 (7.82)	2.96 (5.32)	-0.50 (11.90)	14.49* (7.56)	-3.77 (8.27)			
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	6.44 (4.01)	-0.18 (10.78)	13.38* (7.41)	6.86 (8.16)	11.95*** (4.01)	3.12 (10.25)	18.26*** (6.59)	11.05 (8.13)			
$\Delta \mathrm{Limit}_{s,t}$	6.15* (3.46)	0.67 (9.30)	-1.87 (5.56)	13.60** (5.66)	10.30*** (3.34)	1.31 (9.48)	4.67 (4.69)	15.83** (6.15)			
$\Delta \text{Limit}_{s,t+1}$	$ \begin{array}{c} 2.36 \\ (4.69) \end{array} $	$ \begin{array}{c} -6.92 \\ (8.95) \end{array} $	-8.98 (6.26)	12.66* (6.44)	-0.08 (4.94)	-12.69 (8.99)	-4.54 (6.44)	11.10 (6.89)			
$\Delta \text{Limit}_{s,t+2}$	-4.74* (2.81)	-4.50 (8.04)	-7.40 (6.34)	-3.00 (8.46)	-9.75*** (2.84)	-7.47 (7.76)	-12.31** (5.58)	-7.46 (8.60)			
Lagged Dep.Var.	-0.15^{***} (0.01)	-0.45^{***} (0.00)	-0.41^{***} (0.01)	-0.40*** (0.01)	-0.17*** (0.00)	-0.45*** (0.00)	-0.40^{***} (0.01)	-0.41^{***} (0.01)			
Observations Adjusted R^2	279,763 0.10	230,504 0.23	255,728 0.21	258,326 0.21	279,763 0.10	230,504 0.23	255,728 0.20	258,326 0.21			

Table IA.XIV Main Results for IT-Intensive Industries

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) on a subsample of firms from IT-intensive industries. Industry IT intensity is calculated from the IT intensity of occupations, produced by Gallipoli and Makridis (2018). We use the publicly available industry OES data to compute each industry's IT intensity by averaging each industry's occupational IT intensity, weighted by the occupation's employment share in the industry. We classify the top 50% of industries as IT-intensive. The dependent variables are annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{i,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t (see definition of eligibility in Section II.B. Lagged Dep. Var. represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

		Pa	nel A: Investr	ment Regression	ons					
		Con	nputer Investme							
$\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}$			10.08** (4.45)	18.12*** (5.83)						
$\Delta \mathrm{Limit}_{s,t}$			-3.18 (4.89)	-8.77^* (4.96)						
Lagged Dep.Var.	-0.12^{***} (0.00) (0.00)									
Observations Adjusted R^2			203,939 0.23			197,289 0.24				
	Pa	nel B: Employn	nent Regressio	Panel C: Wage Bill Regressions						
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)		
$\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}$	-2.08 (4.04)	-28.43** (11.02)	9.39 (6.32)	4.34 (7.48)	-5.28 (4.64)	-30.95*** (10.94)	4.43 (6.51)	4.19		
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-0.89 (4.93)	-2.19 (11.29)	19.64** (8.58)	-12.10 (9.46)	2.71 (5.36)	1.28 (11.74)	18.33** (7.65)	-10.97 (9.75)		
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	1.06	10.90	9.39	-5.75	7.86	13.21	16.02**	-0.44		

(9.25)

7.97

(5.83)

18.92**

(7.70)

12.65 (7.71)

(0.01)

-0.41***

(7.69)

-1.76

(6.34)

-14.34*

(7.23)

-4.54

(8.26)

(0.01)

-0.37***

(5.04)

3.50

(3.66)

2.73

(5.40)

-0.10

(3.92)

(0.01)

163,842

-0.12***

 $\Delta \text{Limit}_{s,t}$

 $\Delta \text{Limit}_{s,t+1}$

 $\Delta \text{Limit}_{s,t+2}$

Observations

Adjusted R²

Lagged Dep.Var.

(12.12)

10.78

(10.24)

-9.66

(11.16)

-14.48

(9.16)

(0.00)

135,725

-0.44***

(11.78)

12.51

(10.22)

-16.23

(11.36)

-17.00*

(9.26)

-0.45**

(0.00)

(7.09)

3.84

(6.36)

 -12.27^*

-10.68

(6.79)

(7.50)

-0.36**

(0.01)

(8.23)

10.06

(6.69)

17.63**

(8.22)

6.72 (6.99)

(0.01)

147.558

0.41***

(4.86)

8.50*

(4.55)

-1.32

(5.58)

-6.37

(3.83)

(0.01)

-0.16**

Table IA.XV Main Results for Non-IT-Intensive Industries

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) on a subsample of firms from non-IT-intensive industries. Industry IT intensity is calculated from the IT intensity of occupations, produced by Gallipoli and Makridis (2018). We use the publicly available industry OES data to compute each industry's IT intensity by averaging each industry's occupational IT intensity, weighted by the occupation's employment share in the industry. We classify the bottom 50% of the industries as non-IT-intensive. The dependent variables are annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable Eligible_{i,t} is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t (see definition of eligibility in Section II.B. Lagged Dep. Var. represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

	Panel A: Investment Regression	
	Computer Investments (1)	Δ IT Intensity (2)
$\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}$	0.73 (6.87)	6.27 (9.36)
$\Delta \mathrm{Limit}_{s,t}$	6.82 (6.34)	-0.57 (8.30)
Lagged Dep.Var.	-0.14*** (0.00)	-0.17*** (0.00)
Observations Adjusted R^2	149,973 0.17	145,131 0.17
	Panel R. Employment Regressions	Panel C: Wage Bill Regressions

	Pan	Panel B: Employment Regressions				Panel C: Wage Bill Regressions				
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)		
$\overline{\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}}$	-10.52^{**} (4.72)	-17.92 (13.16)	7.46 (14.92)	-14.81 (9.41)	-10.74^* (5.58)	-16.29 (13.12)	4.08 (13.87)	-17.27^* (9.35)		
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-12.15^* (7.12)	-24.02 (14.57)	4.22 (12.74)	-3.02 (11.69)	-9.52 (7.18)	-21.35 (14.58)	-3.52 (11.94)	-0.66 (12.18)		
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	9.95 (5.95)	-18.21 (14.14)	22.14** (9.76)	24.87 (21.44)	13.16** (4.96)	-15.25 (13.01)	23.70** (9.60)	27.37 (20.59)		
$\Delta \mathrm{Limit}_{s,t}$	9.20* (4.76)	-1.45 (13.54)	-0.41 (16.17)	19.73** (8.97)	10.53* (5.72)	-4.80 (13.45)	3.30 (15.56)	21.99** (8.89)		
$\Delta \text{Limit}_{s,t+1}$	11.71* (6.73)	16.95 (11.20)	5.35 (12.40)	8.72 (10.55)	10.37 (6.31)	13.48 (11.33)	12.86 (11.56)	7.01 (10.65)		
$\Delta \text{Limit}_{s,t+2}$	-8.79^* (5.23)	14.57 (13.28)	-13.28 (9.11)	-26.79 (21.33)	-11.20** (4.73)	11.84 (12.62)	-14.67 (9.25)	-28.43 (20.59)		
Lagged Dep.Var.	-0.18*** (0.01)	-0.45^{***} (0.00)	-0.43^{***} (0.01)	-0.38*** (0.01)	-0.20^{***} (0.01)	-0.46^{***} (0.00)	-0.42^{***} (0.01)	-0.38*** (0.01)		
Observations Adjusted R^2	166,101 0.12	134,059 0.24	146,902 0.22	157,059 0.20	166,101 0.12	134,059 0.24	146,902 0.22	157,059 0.20		

Table IA.XVI Main Results for Service-Providing Industries

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) on a subsample of firms from service-providing industries. Classification of service-providing industries is adapted from the BLS. The dependent variables are annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t (see definition of eligibility in Section II.B. $Lagged\ Dep.\ Var.$ represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. * , ** , and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

		Pa	nel A: Investm	nent Regression	ns					
		Cor	nputer Investme		Δ IT Intensity (2)					
$\overline{\Delta_{\text{Limit}_{s,t}} \times \text{Eligible}_{j,t}}$			7.94** (3.45)			15.18*** (4.22)				
$\Delta \mathrm{Limit}_{s,t}$			-0.57 (4.19)			-7.72^{**} (3.65)				
Lagged Dep.Var.		$ \begin{array}{ccc} -0.13^{***} & & -0.17 \\ (0.00) & & (0.00) \end{array} $								
Observations Adjusted R^2			$330,500 \\ 0.21$			$319,640 \\ 0.21$				
	Pan	el B: Employn	nent Regressio	ns	Panel C: Wage Bill Regressions					
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)		
Δ Limit _{s,t} × Eligible _{j,t}	-4.91 (4.06)	-26.87*** (9.56)	4.84 (9.15)	0.11 (6.69)	-7.62 (5.17)	-27.08*** (9.61)	0.88 (8.70)	-1.26 (7.20)		
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-7.28 (5.38)	-8.16 (13.38)	13.42 (8.33)	-14.73^* (7.98)	-4.04 (6.16)	-3.45 (13.71)	10.60 (8.59)	-14.10 (8.98)		
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	6.16 (4.21)	7.69 (9.31)	15.45* (8.10)	12.66 (10.86)	11.49** (4.30)	10.75 (8.69)	19.64*** (7.14)	17.93 (10.87)		
$\Delta \mathrm{Limit}_{s,t}$	5.82 (3.99)	7.97 (10.78)	1.55 (9.56)	10.83* (6.31)	9.41* (5.13)	6.92 (10.75)	5.68 (9.08)	13.22* (6.93)		
$\Delta \text{Limit}_{s,t+1}$	5.72 (5.19)	-0.26 (10.54)	-7.65 (7.86)	16.14** (7.41)	$ \begin{array}{c} 2.81 \\ (5.75) \end{array} $	-7.02 (10.91)	-5.19 (8.24)	15.49* (8.30)		
$\Delta \text{Limit}_{s,t+2}$	-5.55 (3.66)	-10.31 (7.43)	-7.78 (8.28)	-10.64 (11.09)	-10.48^{**} (3.97)	-13.21* (6.88)	-12.42^* (7.32)	-15.60 (11.19)		
Lagged Dep.Var.	-0.15*** (0.01)	-0.45*** (0.00)	-0.41^{***} (0.01)	-0.40*** (0.01)	-0.19*** (0.01)	-0.46*** (0.00)	-0.40*** (0.01)	-0.41**		
Observations Adjusted R^2	252,367 0.09	202,174 0.24	228,636 0.21	230,605 0.20	252,367 0.10	202,174 0.24	228,636 0.20	230,605 0.21		

Table IA.XVII Main Results for Goods-Producing Industries

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) on a subsample of firms from goods-producing industries. Classification of goods-producing industries is adapted from the BLS. The dependent variables are annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t (see definition of eligibility in Section II.B. $Lagged\ Dep.\ Var.$ represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. * , ** , and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

		Pa	nel A: Investm	ent Regression	ns					
		Con	nputer Investme: (1)		Δ IT Intensity (2)					
$\overline{\Delta_{\text{Limit}_{\mathcal{S},t}} \times \text{Eligible}_{j,t}}$			-4.61 (13.24)			19.25 (15.68)				
$\Delta \mathrm{Limit}_{s,t}$			5.52 (5.76)			3.59 (10.79)				
Lagged Dep.Var.		-0.11^{***} (0.01) -0.17^{*} (0.01)								
Observations Adjusted R^2			23,412 0.10			22,780 0.10				
	Pan	el B: Employn	nent Regressio	ns	Panel C: Wage Bill Regressions					
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)		
Δ Limit _{s,t} × Eligible _{j,t}	-9.28 (5.86)	-15.04 (17.41)	15.51 (9.59)	-16.64 (10.74)	-10.31* (5.38)	-18.42 (17.03)	10.62 (8.30)	-18.44^* (10.70)		
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-0.34 (6.96)	-18.01 (15.91)	15.58 (11.36)	12.52 (10.19)	4.16 (7.71)	-14.12 (16.29)	12.62 (11.04)	17.62* (10.08)		
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	-0.22 (7.28)	-8.89 (16.54)	7.91 (12.66)	-15.08 (12.48)	7.38 (6.89)	-6.81 (15.18)	16.96 (11.87)	-10.88 (12.50)		
$\Delta \mathrm{Limit}_{s,t}$	5.13 (5.10)	-1.78 (13.86)	-4.61 (9.35)	12.98 (8.22)	9.82* (4.95)	-0.17 (13.89)	1.99 (7.80)	14.54* (8.57)		
$\Delta \text{Limit}_{s,t+1}$	$8.61 \\ (7.24)$	3.67 (15.31)	-2.91 (10.21)	10.41 (8.61)	5.02 (7.33)	-1.80 (15.26)	2.58 (10.15)	6.83 (8.61)		
$\Delta \text{Limit}_{s,t+2}$	2.91 (5.19)	$1.74 \\ (12.95)$	-3.59 (9.14)	17.82* (9.55)	-2.84 (4.43)	-0.71 (12.28)	-9.31 (8.43)	13.52 (9.21)		
Lagged Dep.Var.	-0.14*** (0.01)	-0.43*** (0.01)	-0.38*** (0.01)	-0.38*** (0.01)	-0.15*** (0.01)	-0.43*** (0.01)	-0.37*** (0.01)	-0.38*** (0.01)		
Observations Adjusted R^2	80,029 0.14	69,724 0.20	76,601 0.19	76,433 0.20	80,029 0.13	69,724 0.21	76,601 0.18	76,433 0.20		

Table IA.XVIII

Main Results Controlling for the Interaction of Section 179 Eligibility and State Bonus Rate

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) while also controlling for the interaction between Section 179 eligibility of the firm and the state bonus depreciation rate. The dependent variables are annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t (see definition of eligibility in Section II.B. The variable $BonusRate_t$ is the state bonus depreciation rate in year t. Lagged Dep. Var. represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies, and contemporaneous changes in state political, economic, and other policy characteristics. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

Panel A: Investment Regressions								
	Computer Investments (1)	Δ IT Intensity (2)						
$\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}$	5.37* (3.16)	12.47*** (4.39)						
Δ BonusRate $_t$ × Eligible $_{j,t}$	1.47 (1.47)	1.38 (1.92)						
$\Delta \mathrm{Limit}_{s,t}$	1.38 (3.54)	-4.97 (3.75)						
Lagged Dep.Var.	-0.13*** (0.00)	-0.17*** (0.00)						
Observations Adjusted R^2	353,912 0.21	342,420 0.21						

,									
	Pan	el B: Employn	nent Regression	ons	Panel C: Wage Bill Regressions				
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)	
Δ Limit _{s,t} × Eligible _{j,t}	-6.44* (3.33)	-20.84** (8.24)	10.31* (5.94)	-7.80 (6.47)	-8.52** (3.84)	-21.88** (8.27)	5.86 (5.73)	-9.66 (6.75)	
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-5.98 (4.39)	-8.22 (10.54)	14.78** (7.31)	-10.62 (7.11)	-2.88 (4.95)	-5.10 (10.69)	10.89 (7.17)	-9.34 (7.66)	
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	4.21 (3.86)	0.87 (10.85)	13.82** (6.84)	2.73 (8.42)	9.30** (3.72)	3.14 (10.05)	18.23*** (5.98)	7.11 (8.33)	
Δ BonusRate $_t$ × Eligible $_{j,t}$	$0.46 \\ (1.76)$	-6.83 (4.38)	-2.30 (4.54)	5.37** (2.55)	$0.76 \\ (1.75)$	-6.79 (4.27)	-1.75 (4.45)	6.43*** (2.30)	
Δ BonusRate _{t+1} × Eligible _{j,t+1}	1.29 (1.11)	-1.95 (2.99)	-2.37 (3.26)	3.61* (1.93)	1.56 (1.22)	-1.43 (2.86)	-1.97 (3.09)	4.14** (1.76)	
Δ BonusRate _{t+2} × Eligible _{j,t+2}	-0.15 (1.06)	-0.31 (2.95)	-0.16 (2.61)	1.12 (1.84)	0.33 (1.17)	0.11 (2.99)	0.34 (2.55)	1.39 (1.96)	
$\Delta \mathrm{Limit}_{s,t}$	5.64* (3.15)	4.49 (9.55)	-1.65 (7.02)	13.86** (5.54)	9.20** (3.66)	4.23 (9.61)	3.24 (6.57)	16.19*** (5.92)	
$\Delta \text{Limit}_{s,t+1}$	6.30 (4.75)	-0.28 (9.41)	-6.93 (6.53)	15.43** (6.29)	3.41 (4.90)	-5.59 (9.57)	-3.01 (6.59)	14.19** (6.76)	
$\Delta \mathrm{Limit}_{s,t+2}$	-3.03 (3.01)	-4.54 (8.59)	-6.97 (6.80)	-0.67 (8.39)	-7.60** (2.90)	-6.91 (8.12)	-11.15^* (5.94)	-4.89 (8.51)	
Lagged Dep.Var.	-0.15*** (0.01)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40^{***} (0.01)	-0.18*** (0.00)	-0.45^{***} (0.00)	-0.40^{***} (0.01)	-0.40^{***} (0.01)	
Observations Adjusted R^2	329,943 0.11	269,784 0.23	302,873 0.20	304,617 0.20	329,943 0.11	269,784 0.23	302,873 0.19	304,617 0.20	

Table IA.XIX Main Results Excluding State Controls

This table estimates the effects of changes in state Section 179 deduction limits on computer investment and employment metrics by running the regressions in equations (2) and (4) without the state-level controls. The dependent variables are annual investment and the three-year growth rate of the employment metrics in each establishment. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t (see definition of eligibility in Section II.B. $Lagged\ Dep.\ Var.$ represents lagged annual investment and the lagged three-year growth rate of the employment metrics in each establishment. For brevity, we do not report the standalone eligibility dummies. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. * , ** , and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

Panel A: Computer Investment						
	Computer Investments (1)	Δ IT Intensity (2)				
$\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}$	6.87** (2.87)	13.59*** (4.12)				
$\Delta \mathrm{Limit}_{s,t}$	0.49 (3.00)	-6.02^* (3.34)				
Lagged Dep.Var.	-0.13*** (0.00)	$-0.17^{***} (0.00)$				
Observations Adjusted R^2	353,912 0.21	342,420 0.21				

	Pan	Panel B: Employment Regressions				Panel C: Wage Bill Regressions			
	Tot (1)	R (2)	S (3)	NU (4)	Tot (5)	R (6)	S (7)	NU (8)	
$\overline{\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}}$	-6.17** (3.05)	-22.91*** (8.05)	8.53 (6.48)	-5.48 (5.69)	-8.13** (3.71)	-23.71*** (8.17)	4.27 (6.37)	-6.73 (6.09)	
$\Delta \text{Limit}_{s,t+1} \times \text{Eligible}_{j,t+1}$	-5.93 (4.41)	-9.84 (10.21)	13.53* (6.86)	-9.31 (7.11)	-2.46 (5.07)	-6.27 (10.70)	10.08 (6.86)	-7.47 (7.98)	
$\Delta \text{Limit}_{s,t+2} \times \text{Eligible}_{j,t+2}$	4.56 (3.66)	0.13 (10.31)	14.95** (7.02)	3.66 (8.49)	10.43*** (3.66)	2.95 (9.55)	20.04*** (6.19)	8.76 (8.79)	
$\Delta \mathrm{Limit}_{s,t}$	5.41* (3.19)	6.56 (9.17)	-3.35 (7.46)	12.20** (5.02)	8.02** (3.96)	6.04 (9.36)	$0.45 \\ (7.42)$	13.73** (5.65)	
$\Delta \text{Limit}_{s,t+1}$	5.46 (4.93)	1.51 (9.11)	-9.07 (7.27)	13.55** (6.40)	2.89 (5.83)	-3.97 (9.58)	-4.65 (8.23)	12.36 (7.67)	
$\Delta \text{Limit}_{s,t+2}$	-3.08 (2.96)	-4.09 (7.36)	-7.83 (6.52)	-0.26 (8.74)	-7.63** (3.54)	$ \begin{array}{c} -6.91 \\ (6.92) \end{array} $	-11.72^* (6.06)	-4.85 (9.70)	
Lagged Dep.Var.	-0.15*** (0.01)	-0.45*** (0.00)	-0.40*** (0.01)	-0.40*** (0.01)	-0.18*** (0.00)	-0.45*** (0.00)	-0.39*** (0.01)	-0.40*** (0.01)	
Observations Adjusted R^2	329,943 0.11	269,784 0.23	302,873 0.21	304,617 0.20	329,943 0.11	269,784 0.23	302,873 0.20	304,617 0.21	

Table IA.XX
Response of Employment Growth to Changes in State Section 179 Deduction Limits
Using CiTDB Data

This table reports the effects of changes in state Section 179 deduction limits on establishments' total employment from the CiTDB data set using the regressions in equation (4). The dependent variable is the employment growth rate in each establishment from year t to t+1, t+2, and t+3. The variable $\Delta Limit_{s,t}$ is the change in the maximum Section 179 deduction that a firm may claim in a year from state taxes from t-1 to t, presented in millions of dollars. The variable $Eligible_{j,t}$ is a dummy variable that equals one if the firm is eligible for the federal Section 179 in year t (see definition of eligibility in Section II.B. Lagged Dep. Var. is the three-year growth rate of total employment in each establishment from year t-3 to t. For brevity, we do not report the following variables that are also included in the regression: the standalone eligibility dummies for each year from t to t+2, contemporaneous changes in state political, economic, and other policy characteristics for each year from t to t+2. All regressions include fixed effects that include a full interaction of eight employment bins, NAICS four-digit industry codes, and year. Employment bins are defined as (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and 200 or more. Standard errors are clustered at the state level and reported in parentheses. *, ** , and *** represent significance at the 10%, 5%, and 1% levels, respectively. The sample period is 2003 to 2014.

		CiTDB Sample		
	[t, t+1]	[t, t+2]	[t, t+3]	[t, t+3]
$\Delta \text{Limit}_{s,t} \times \text{Eligible}_{j,t}$	0.60 (1.33)	-1.78 (5.07)	-2.21 (2.46)	-1.57 (3.15)
$\Delta \text{Limit}_{s,t}$	0.13 (1.12)	7.80* (4.42)	4.32 (2.71)	2.66 (3.16)
Lagged Dep.Var.	-0.16^{***} (0.00)	-0.21^{***} (0.00)	-0.22^{***} (0.00)	-0.16^{***} (0.01)
Observations Adjusted R^2	309,666 0.12	205,531 0.08	188,570 0.07	329,943 0.08

Table IA.XXI Job-to-Job Transition Matrix From CPS Data

This table reports the transition probabilities of workers across different types of jobs. Panel A tabulates the probabilities of workers transitioning from a labor group at time t-1 into various groups in the current year, that is, origination probabilities. Panel B tabulates the probability of transitioning from various groups in the prior year into a labor group in year t, that is, destination probabilities. Panels C and D repeat Panels A and B for male workers between the ages of 35 and 55. The individual-level year-to-year job data come from the CPS ASEC data from 2003 to 2006. We choose 2003 as our initial sample year because CPS changed occupation codes in 2002. We only select individuals in states that adopted the federal Section 179 limit increase in 2003. We further require individuals to be surveyed in both the current year and the prior year. These procedures result in an average of 21,619 individuals each year from 2004 to 2006. We crosswalk the SOC occupation code used in our study to the Census occupation code using the concordance provided by the Census website. We then classify each Census occupation as routine-task, skilled, or nonroutine unskilled based on our classification of the SOC occupations. Each year we categorize whether an individual's employment status belongs to one of the following five categories: working in a Skilled occupation, working in a Routine occupation, working in a Nonroutine-Unskilled occupation, Unemployed but in the labor force, and Out of the Labor Force. The probabilities are computed each year and then averaged across years from 2004 to 2006.

Panal A. Probability	of Transitioning from	Vont t 1 Catogories	(Origination Probability)	
ганега: гторарицу	or transmoning from	rear t — r Gategories	CONTRINATION FRODADIIIV	

	=		_	_	, –	_
	$Skilled_t$	$Routine_t$	NR -UnSkill $_t$	Unemp._t	Out L.F. $_t$	
$\overline{\text{Skilled}_{t-1}}$	78.3	13.9	13.4	2.4	2.5	
$Routine_{t-1}$	4.9	49.8	8.4	2.2	1.7	
NR - $UnSkill_{t-1}$	12.7	22.8	68.9	3.8	4.1	
Unemp. $_{t-1}$	0.0	0.4	0.2	10.1	0.2	
Out L.F. $_{t-1}$	4.0	13.2	9.1	81.5	91.5	
$Total_{t-1}$	100	100	100	100	100	

Panel B: Probability of Transitioning into Year t Categories (Destination Probability)

	$Skilled_t$	$Routine_t$	$\mathrm{NR} ext{-}\mathrm{UnSkill}_t$	Unemp._t	Out L.F. $_t$	Total_t
$\overline{\text{Skilled}_{t-1}}$	77.1	4.5	13.0	0.0	5.5	100
$Routine_{t-1}$	14.9	48.6	24.9	0.1	11.7	100
NR -UnSkill $_{t-1}$	13.1	7.6	69.8	0.0	9.4	100
Unemp. $_{t-1}$	5.0	14.3	25.2	10.9	44.6	100
Out L.F. $_{t-1}$	1.8	1.9	4.0	0.3	92.0	100

Continued...

 ${\bf Table~IA.XXI} - Continued$

Panel C: Probability of	of Transitioning fr	rom Year t - 1	Categories (Male A	ged 35-55)

	v		O	O	(/
	$Skilled_t$	$Routine_t$	NR -UnSkill $_t$	Unemp._t	Out L.F. $_t$	
$\overline{\text{Skilled}_{t-1}}$	84.2	21.1	16.4	0.0	8.8	
$Routine_{t-1}$	3.6	51.6	5.5	0.0	3.4	
NR -UnSkill $_{t-1}$	11.1	24.9	75.7	0.0	12.1	
Unemp. $_{t-1}$	0.0	0.0	0.0	45.7	0.0	
Out L.F. $_{t-1}$	1.1	2.4	2.3	54.3	75.7	
$Total_{t-1}$	100	100	100	100	100	

Panel D: Probability of Transitioning into Year t Categories (Male Aged 35-55)

	$Skilled_t$	$Routine_t$	NR -UnSkill $_t$	Unemp._t	Out L.F. $_t$	Total_t
$\overline{\text{Skilled}_{t-1}}$	82.9	3.5	11.6	0.0	2.0	100
$Routine_{t-1}$	21.3	51.1	23.2	0.0	4.5	100
NR -UnSkill $_{t-1}$	15.4	5.8	75.0	0.0	3.8	100
Unemp. $_{t-1}$	0.0	0.0	0.0	100.0	0.0	100
Out L.F. $_{t-1}$	5.2	2.0	8.2	0.4	84.3	100