Economic Stimulus at the Expense of Routine-Task Jobs

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Much of the investment tax policy emphasizes job creation:

Our bill aimed to help small businesses invest, grow, and create jobs by providing needed tax relief and certainty. ... In light of the positive effects these provisions would have on small businesses, on jobs, and on our economy, I urge my colleagues to support the tax relief package.

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Effect of such policies on labor outcomes is not well explored.

Ohrn (2016); Gaggl and Wright (2016); Zwick and Mahon (2017).

Routine-task labor: Workers performing procedural and rule-based tasks.

- $\bullet \ \, \mathsf{Tax} \; \mathsf{preparers} \, \to \, \mathsf{Tax} \; \mathsf{preparation} \; \mathsf{software} \; \,$
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- Middle-skill

Literature: Routine-task jobs decline while other jobs thrive.

Autor, Levy, and Murnane (2003); Autor, Katz, and Kearney (2006); Goos and Manning (2007); Autor and Dorn (2013); Jaimovich and Siu (2014); Hershbein and Kahn (2018); Zhang (2018); Ma, Ouimet and Simintzi (2018); He and Maire (2018); Lagaras (2018); etc.

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This paper: Did pro-growth tax policy on investment accelerate the divergence between routine-task jobs and other jobs?

This paper

We study the effect of Section 179, a major tax incentive for investment in equipment and software.

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- Explore variations in state adoption of the incentive (treatment vs control)
- Identify firms that are eligible for this incentive (use ineligible firms for placebo tests)
- Examine firms' equipment/technology investment (to convey the investment channel)
- Study the effects on employment, routine, skilled, and non-routine unskilled jobs separately

Preview of results

When states expand incentive for equipment investment, eligible firms:

- purchase more equipment/computers,
- make little change in total employment,
- increase skilled employees quickly,
- reduce routine-task employees with a delay.

How does Section 179 work? — An example

A firm is considering a \$250,000 investment in computers:

Year	0	1	2	3	4	5	Total
State without Section 179							
Deductions (000s)	50	80	48	28.8	28.8	14.5	250
State tax benefit ($ au = 6.08\%$)	3.1	4.9	2.9	1.8	1.8	0.9	15.2
PV of tax benefit $(r = 10\%)$	12.95						
State with Section 179							
Deductions (000s)	250	0	0	0	0	0	250
State tax benefit ($\tau = 6.08\%$)	15.2	0	0	0	0	0	15.2
PV of tax benefit ($r=10\%$)	15.2						

Differences in PV of tax benefits = \$2,272

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250

15.2

15.2

n

2

1

3

5

Total

250

15.2

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State tax benefit ($\tau = 6.08\%$)

PV of tax benefit (r = 10%)

Deductions (000s)

Vear

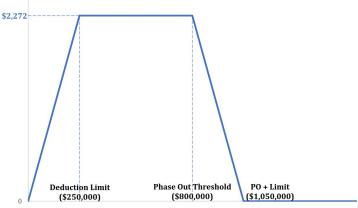
- Potential amplification channels:
 - Financial constraints: Differences in first year funding need = \$12,160
 - Fixed adjustment costs: Investment may rise sharply when policy induces a firm across its adjustment threshold
 - Simplify book-keeping for federal and state taxes: 32.3% firms do not claim federal Section 179 (IRS)

Who benefits from Section 179?

Section 179 targets small businesses by introducing:

Deduction Limits and Phase-out Thresholds

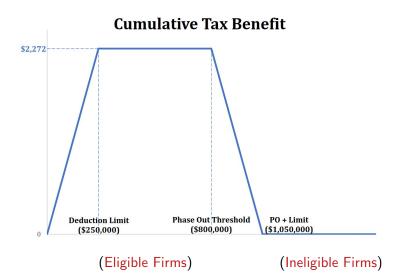
Cumulative Tax Benefit



Who benefits from Section 179?

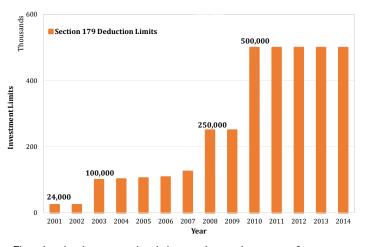
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Changes in federal Section 179 deduction limits

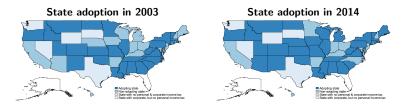
Deduction Limit of Federal Section 179 Increases over 2001-2014



Firms in adopting states also deduct equipment investment from state taxes

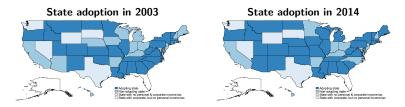
State Section 179 limits

State adoption of Section 179 is quite stable



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- Key Variable: Changes in state Section 179 deduction limits
- Cross-sectional variation: (mainly) states' adoption decisions in 2003
- Time-series variation: (mainly) changes in federal deduction limits

A simple model

The firm uses four factors of production: L_S , L_R , L_{NU} , K

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

- K substitutes for L_R
- K complements L_S
- K does not interact with L_{NU}
- Section 179 incentive: Reduce the effective price of K
- Predictions: K goes up, L_S goes up, L_R goes down, L_{NU} is not affected

- Computer investment of establishments:
 - Computer Intelligence Technology Database (CiTDB)
 - Number of computers and servers for establishments
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- 1.2 million establishments, surveyed once every three years; 62% of total employment

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- Characteristics of occupations:
 Dictionary of Occupational Titles (DOT) & O*Net
- Hand-collected data on State 179 limits from CCH state tax handbook, supplemented by state websites, ...

Routine-Task Occupations are defined based on Zhang (2018):

Each occupation's intensity in three dimensions of tasks:

$$T_o = [T_o^{Routine}, T_o^{Abstract}, T_o^{Manual}]$$

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Assign a routine-task intensity score (RTI) to each occupation:

$$\mathit{RTI}_o = \ln(\mathit{T}_o^{\mathit{Routine}}) - \ln(\mathit{T}_o^{\mathit{Abstract}}) - \ln(\mathit{T}_o^{\mathit{Manual}})$$

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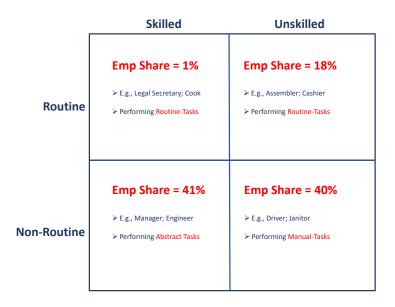
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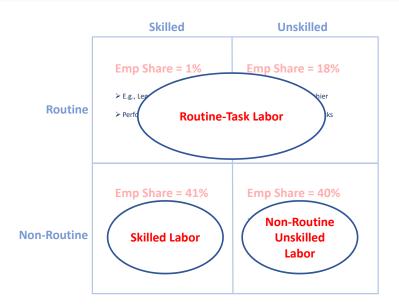
Skilled Occupations are occupations requiring:

- A college degree (e.g., chemist), or
- 2-Years of related work experience (e.g., electrician)

Classification of occupations



Classification of occupations



Empirical design

 ${\sf Natural\ Experiments} + {\sf First-Difference} + {\sf Matching\ Estimation} :$



Empirical design

Natural Experiments + First-Difference + Matching Estimation:

	Eligible Firms	Ineligible Firms
Treated States	Strong Response	No Response
Control States	No Response	No Response

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$$\begin{split} \Delta Y_{f,s,t} &= b_1 \Delta \textit{Limit}_{s,t} + b_2 \textit{Eligible}_{f,t} + b_3 \Delta \textit{Limit}_{s,t} \times \textit{Eligible}_{f,t} \\ &+ b_4 \Delta X_{s,t} + b_5 \Delta Y_{f,s,t-1} + \textit{FE}_{\textit{EmpBin} \times \textit{Ind} \times \textit{Year}} + \epsilon_{f,s,t+1} \\ &b_3 > 0 \end{split}$$

FE_{EmpBin×Ind×Year}: matching establishments based on a full interaction of 8 employment bins: (1, 4), (5, 9), (10, 14), (15, 24), (25, 49), (50, 99), (100, 199), and above 200, NAICS 4-digit, and year.

Result 1: Technology Investment

	Computer Investments (1)	Δ IT Intensity (2)
Δ Limit _t × Eligible _t	6.70** (2.88)	13.72*** (4.09)
$\Delta \text{Limit179}_t$	0.50 (3.52)	-5.80 (3.63)
Observations Adjusted R ²	353,912 0.21	342,420 0.21

Additional Results: Purchase and Lease of Various Types of Capital

Result 2a: Total employment

Adjusted R^2

Δ Emp [t, t+3]

	(1)	(2)	(3)	(4)
$\Delta Limit_t \times Eligible_t$	-1.57 (3.15)			-5.67 (3.62)
$\Delta Limit_{t+1} imes Eligible_{t+1}$		1.35 (4.00)		-5.32 (4.41)
$\Delta Limit_{t+2} \times Eligible_{t+2}$			3.64 (3.98)	4.00 (3.85)
$\Delta Limit_t$	2.66 (3.16)			5.63* (3.11)
$\Delta Limit_{t+1}$		-0.07 (4.48)		5.90 (4.72)
$\Delta Limit_{t+2}$			-2.14 (3.14)	-2.91 (3.03)
Observations	329,943	329,943	329,943	329,943

0.09

0.10

0.11

80.0

Result 2b: Routine-task employment

ΔEmp^R [t, t+3]

	(1)	(2)	(3)	(4)
Δ Limit _t × Eligible _t	- 21.16*** (7.33)			- 24.38*** (8.30)
$\Delta Limit_{t+1} imes Eligible_{t+1}$		-2.75 (9.58)		-9.43 (10.48)
$\Delta Limit_{t+2} \times Eligible_{t+2}$			-3.61 (9.94)	0.56 (10.45)
$\Delta Limit_t$	4.21 (9.11)			5.83 (9.49)
$\Delta Limit_{t+1}$		-4.22 (8.92)		0.03 (9.23)
$\Delta Limit_{t+2}$			-3.15 (7.49)	-4.10 (8.20)
Observations Adjusted <i>R</i> ²	269,784 0.23	269,784 0.23	269,784 0.23	269,784 0.23

Result 2c: Skilled employment

ΔEmp^{S} [t, t+3]

	(1)	(2)	(3)	(4)
Δ Limit _t × Eligible _t	12.99** (6.07)			8.54 (6.57)
$\Delta Limit_{t+1} imes Eligible_{t+1}$		18.16*** (6.47)		13.45* (6.75)
$\Delta Limit_{t+2} imes Eligible_{t+2}$			15.99** (7.31)	13.84* (7.28)
$\Delta Limit_t$	-4.59 (6.80)			$-1.34 \ (7.07)$
$\Delta Limit_{t+1}$		$-11.55^{*} \ (6.41)$		$-6.30 \\ (6.50)$
$\Delta Limit_{t+2}$			-7.23 (6.42)	$-6.94 \\ (6.85)$
Observations Adjusted R^2	302,873 0.20	302,873 0.20	302,873 0.20	302,873 0.20

Result 2d: Nonroutine-task unskilled employment

ΔEmp^{NU} [t, t+3]

	(1)	(2)	(3)	(4)
$\Delta Limit_t \times Eligible_t$	-1.83 (6.31)			-4.81 (5.68)
$\Delta Limit_{t+1} imes Eligible_{t+1}$		-2.61 (6.75)		-8.35 (6.90)
$\Delta Limit_{t+2} \times Eligible_{t+2}$			3.15 (8.30)	3.35 (7.99)
$\Delta Limit_t$	11.21* (5.63)			13.07** (5.36)
$\Delta Limit_{t+1}$		8.74 (6.04)		14.60** (6.12)
$\Delta Limit_{t+2}$			1.57 (8.63)	-1.20 (8.09)
Observations Adjusted <i>R</i> ²	304,617 0.20	304,617 0.20	304,617 0.20	304,617 0.20

Result 3: Wage bills

 $\Delta \text{Limit}_{t+1} \times \text{Eligible}_{t+1}$

 $\Delta \text{Limit}_{t+2} \times \text{Eligible}_{t+2}$

 $\Delta Limit_t$

 $\Delta Limit_{t+1}$

 $\Delta Limit_{t+2}$

Observations

Adjusted R2

Wage Bill (WB) = $Emp \times Wage Rate$

-5.95

(10.89)

3.05

(9.73)

5.66

(9.57)

-540

-6.59

269,784

(7.79)

0.23

(9.45)

9.89

(6.62)

(6.35)

3.52

(6.67)

(6.56)

(5.98)

-244

-11.31*

302,873

0.19

18.55***

 $\frac{\Delta WB_{t,t+3}^{NU}}{(4)}$ -6.18 (6.02) -6.71

(7.55)

7.91

(7.93)

15.24**

(5.76)

13.27*

(6.62)

-5.54

304,617

(8.23)

0.20

	$\Delta WB^{Tot}_{t,t+3}$	$\Delta WB^R_{t,t+3}$	$\Delta WB^{\mathcal{S}}_{t,t+3}$
	(1)	(2)	(3)
$\Delta Limit_t \times Eligible_t$	-7.83** (3.68)	-25.47*** (8.38)	4.17 (6.37)

-1.96

(4.98)

9.40**

9.20**

(3.67)

2.98

(4.89)

-7.66**

(2.94)

329,943

0.11

(3.68)

Additional robustness checks

- Examining different types of capital investment.
- Examining sensitivity to state individual income tax rate.
- Examining sensitivity to state corporate income tax rate. (ink)
- Examining alternative definitions of routine-task labor.
- Controlling for state fixed effects.

Conclusion

Investment tax incentives yield heterogeneous labor outcomes

- Increase skilled labor, but reduce routine-task labor
- Increase happens sooner, whereas reduction happens later

Fresh micro-evidence supporting both routine-biased/ skill-biased tech. changes

Changes in state Section 179 limits

	Cha	anges in State	Changes in State Section 179 Limit (\$thousands)							
Lagged Changes in	(1)	(2)	(3)	(4)	(5)					
Δ State Hiring Credits	-2.57 (5.31)				-1.33 (5.35)					
Δ State Bonus Adoption	13.10*** (3.43)				12.54*** (3.34)					
∆ State Budget Surplus		1.76 (1.29)			1.55 (1.32)					
Δ State GSP		1.02 (0.82)			1.10 (0.83)					
Δ State Credit Score		-3.37 (5.26)			-3.38 (5.48)					
Δ State Unemployment			2.50 (7.44)		1.99 (7.18)					
Δ State RShare			3.50 (2.78)		4.07 (2.64)					
Δ State Pers. Inc. Tax Rate				-7.72 (7.81)	-7.56 (7.72)					
Δ State Corp. Inc. Tax Rate				6.29 (4.89)	5.81 (4.76)					
Δ State Democratic Dummy				1.80 (3.58)	2.52 (3.51)					
Observations Adjusted <i>R</i> ²	624 0.28	624 0.28	624 0.28	624 0.28	624 0.28					

Robustness: Changes in wage bills

	$\Delta Wage^R_{t,t+3}$		$\Delta \ Wage^{\mathit{NR}}_{t,t+3}$		$\Delta RShare_{t,t+3}^{Wage}$		$\Delta \ Wage_{t,t+3}$	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Δ Limit _t	-20.35*** (6.69)	3.25 (10.43)	8.27*** (2.76)	5.59 (5.07)	-2.47*** (0.88)	-1.00 (1.24)	2.12 (2.17)	1.44 (4.84)
Eligible _t		$-0.02 \ (1.00)$		-3.14*** (1.01)		$-0.06 \ (0.14)$		-5.76** (0.97)
$\Delta Limit_t \times Eligible_t$		$^{- \bf 28.87^{**}}_{ (\bf 11.31)}$		3.00 (5.92)		$^{-1.72}_{\ (1.52)}$		0.67 (5.40)
$\Delta Limit_{t+1}$	-14.20** (6.22)	8.07 (7.83)	7.73*** (2.17)	12.78*** (4.37)	-2.70*** (0.88)	$-0.63 \ (1.33)$	3.25* (1.90)	11.65** (3.54)
$Eligible_{t+1}$		8.98*** (1.42)		13.68*** (0.85)		0.12 (0.19)		15.77** (0.66)
$\Delta Limit_{t+1} \times Eligible_{t+1}$		-25.97*** (7.99)		-5.75 (4.72)		$^{-2.36^{\ast}}_{\ (1.33)}$		-9.58** (3.82)
$\Delta Limit_{t+2}$	1.00 (6.85)	-1.29 (8.33)	3.44 (2.29)	$-1.63 \ (5.32)$	-0.22 (0.75)	1.57 (1.20)	2.69 (2.59)	1.49 (4.83)
$Eligible_{t+1}$		-22.28*** (1.14)		-29.21*** (0.85)		$-0.01 \ (0.21)$		-30.09** (0.90)
$\Delta Limit_{t+2} \times Eligible_{t+2}$		2.45 (10.58)		5.82 (5.83)		$-2.05 \ (1.50)$		1.39 (4.69)
Observations Adjusted R ²	329,300 0.22	329,300 0.22	398,048 0.11	398,048 0.12	399,732 0.18	399,732 0.18	399,732 0.09	399,732 0.10

Robustness: Controlling for state fixed effects

			Panel A: Inves	tment Regression	ıs					
Computer Investments Δ IT Intensity										
ΔLimit _ε		4.18 (2.54)		$^{-0.97}_{(3.37)}$		3.01 (2.94)		$^{-6.68^{\circ}}_{\ (3.76)}$		
Eligible,			$-0.49 \ (0.38)$					$^{-0.79^{**}}_{\;(0.34)}$		
$\Delta Limit_{t} \times Eligible_{t}$				$ 7.26^{**} \atop (2.88) $				13.71*** (4.21)		
		P	anel B: Emplo	yment Regressior	ıs					
	ΔEn	ΔEm	1P _{t,t+} 3							
ΔLimit _t	-12.02* (6.36)	10.88 (9.36)	6.04 (3.73)	4.46 (6.67)	-1.40 (1.11)	0.04 (1.77)	1.18 (2.73)	$^{-0.57}_{(4.74)}$		
Eligible,		$^{-0.64}_{(1.13)}$		$^{-1.05}_{\ (0.78)}$		$^{-0.19}_{\ (0.20)}$		$^{-2.93^{***}}_{\ (0.65)}$		
$\Delta Limit_r \times Eligible_r$		$^{-27.39^{**}}_{\ (10.73)}$		$^{1.78}_{(6.36)}$		$^{-1.63}_{\ (1.99)}$		(4.95)		
\Limit _{t+1}	$-8.58 \\ (8.90)$	12.58 (10.87)	5.30 (3.87)	8.85° (4.80)	$-1.78 \ (1.28)$	0.40 (1.73)	1.59 (2.67)	8.61** (3.51)		
$Eligible_{t+1}$		10.95*** (1.34)		17.93*** (1.18)		0.22 (0.21)		22.47*** (1.04)		
$\Delta Limit_{t+1} \times Eligible_{t+1}$		$^{-24.06^{***}}_{\ \ (8.64)}$		$\begin{array}{c} -3.94 \\ (4.61) \end{array}$		$-2.41 \ (1.57)$		$^{-7.68}_{\ (6.74)}$		
\Limit _{r+2}	1.96 (7.99)	0.12 (9.86)	1.47 (2.73)	-3.15 (5.37)	0.40 (1.04)	2.02 (1.53)	1.23 (2.27)	0.94 (4.45)		
$Eligible_{t+2}$		-19.21*** (1.24)		-24.90*** (0.65)		0.18 (0.23)		-24.08*** (0.78)		
$\Delta Limit_{t+2} \times Eligible_{t+2}$		2.25 (10.86)		5.24 (6.07)		-1.80 (1.85)		0.49 (4.39)		

Robustness: Conditional on state income tax rate

		Panel /	A: Investment R	egressions				
		Computer Ir	ivestments			Δ ΙΤ	Intensity	
$\Delta Limit_t imes au_t^j$	(0.88** 0.41)	0.0	09 61)	0	53 44)		-0.90* (0.46)
Eligible,			-0.4 (0.5					$^{-0.75^{**}}_{(0.34)}$
$\Delta Limit_{r} imes au_{r}^i imes Eligible_{r}$			1. (0.	11** 48)				$\substack{2.02^{***} \\ (0.63)}$
		Panel	B: Employmen	t Regressions				
	ΔEm	$p_{t,t+3}^R$	Δ Emp	$p_{t,t+3}^{NR}$	Δ RSha	re _{t,t+} 3	ΔΕ	$mp_{t,t+3}$
$\Delta Limit_t imes au_t^j$	$^{-2.29^{**}}_{(1.13)}$	$0.30 \\ (1.17)$	1.39*** (0.43)	0.34 (0.85)	$^{-0.31}_{\ (0.19)}$	$^{-0.04}_{\ (0.21)}$	0.39 (0.27)	-0.32 (0.72)
Eligible:		$^{-0.67}_{\ (1.04)}$		$\substack{-3.70^{***}\\(0.98)}$		$^{-0.10}_{\ (0.17)}$		$^{-7.68^{***}}_{(0.93)}$
$\Delta Limit_{r} \times \tau_{r}^{i} \times Eligible_{r}$		$^{-3.25^{**}}_{(1.53)}$		$^{1.22}_{(0.84)}$		$^{-0.33}_{\ (0.29)}$		$_{(0.73)}^{0.80}$
$\Delta Limit_{t+1} \times \tau^i_{t+1}$	$-1.55 \\ (1.08)$	1.40 (1.41)	0.78** (0.38)	1.34* (0.69)	-0.34° (0.17)	$-0.12 \\ (0.26)$	0.19 (0.31)	1.15** (0.47)
$Eligible_{\mathfrak{c}+1}$		9.57*** (1.40)		14.99*** (0.88)		0.04 (0.21)		17.84*** (0.68)
$\Delta Limit_{t+1} \times \tau_{t+1}^i \times Eligible_{t+1}$		-3.44*** (1.23)		$-0.65 \ (0.69)$		$^{-0.25}_{\ (0.21)}$		$^{-1.10^{**}}_{(0.50)}$
$\Delta Limit_{t+2} \times \tau^{i}_{t+2}$	0.14 (0.92)	$0.99 \ (1.15)$	0.26 (0.29)	0.57 (0.71)	$-0.03 \\ (0.13)$	0.27 (0.23)	0.14 (0.31)	1.03° (0.57)
$Eligible_{t+2}$		-22.12*** (1.08)		$^{-30.64^{***}}_{(0.83)}$		0.05 (0.23)		$-31.75^{***} \ (0.90)$
$\Delta Limit_{t+2} \times \tau_{t+2}^i \times Eligible_{t+2}$		$\!$		$\!$		$^{-0.34}_{\ (0.27)}$		$^{-0.97^{\circ}}_{\ (0.53)}$

Robustness: Conditional on state corporate tax rate

Daniel A. Incompany Democratica

		Panel A	A: Investment Re	gressions				
		Computer In	vestments			ΔIT In	tensity	
$\Delta Limit_t \times \tau_t^c$	(0	0.51* 0.29)	-0.10 (0.39	9)	0.19 (0.32)	$-1.11^{**} \ (0.42)$ $-0.76^{**} \ (0.34)$	
Eligible _t			-0.48 (0.38					
$\Delta Limit_t \times \tau_t^c \times Eligible_t$			0.8 (0.46					1.85*** 0.50)
		Pane	l B: Employmen	t Regressions				
	ΔEm	$p_{t,t+3}^R$	Δ Emp	NR t,t+3	Δ RShare _{t,t+3}		$\Delta \; Emp_{t,t+3}$	
$\Delta Limit_t imes au_t^c$	-2.05** (0.78)	1.50 (1.27)	0.69* (0.35)	0.18 (0.72)	-0.24* (0.13)	0.05 (0.18)	-0.08 (0.24)	-0.18 (0.66)
Eligible,		$^{-0.43}_{\ (1.01)}$		$\substack{-3.65^{***}\\(0.97)}$		$^{-0.09}_{\ (0.17)}$		$^{-7.61^{**}}_{\;(0.92)}$
$\Delta Limit_{t} \times \tau_{t}^{c} \times Eligible_{t}$		$^{-4.32^{***}}_{(1.39)}$		$\underset{(0.84)}{0.58}$		$^{-0.34}_{\ (0.22)}$		$(0.09 \\ (0.77)$
$\Delta Limit_{r+1} imes { au^{c}_{r+1}}$	-1.28* (0.72)	1.60 (1.06)	0.82*** (0.30)	1.20** (0.58)	-0.29** (0.12)	$-0.12 \\ (0.20)$	0.26 (0.21)	1.00** (0.42)
$Eligible_{\mathfrak{r}+1}$		9.65*** (1.41)		14.97*** (0.87)		0.04 (0.21)		17.82** (0.68)
$\Delta Limit_{t+1} imes au_{t+1}^c imes Eligible_{t+1}$		-3.37*** (1.17)		$-0.43 \\ (0.61)$		$-0.20 \ (0.23)$		$^{-0.85^{\circ}}_{\ (0.42)}$
$\Delta Limit_{t+2} \times {{\tau}^{c}_{t+2}}$	0.38 (0.72)	0.79 (1.07)	0.49* (0.27)	0.08 (0.58)	$-0.01 \\ (0.11)$	0.32 (0.19)	0.40 (0.28)	0.57 (0.50)
$Eligible_{t+2}$		$-22.19*** \ (1.12)$		$-30.76*** \\ (0.83)$		$0.07 \\ (0.24)$		-31.85** (0.90)
$\Delta Limit_{t+2} \times \tau^c_{t+2} \times Eligible_{t+2}$		-0.50		0.47		-0.37		-0.19

(0.67)

(0.24)

(0.48)

(1.23)

Robustness: Small business investment and changes in state Section 179 limit — Extensive Margin

<u>NFIB Data:</u> whether a small business purchased or leased equipment, furniture, building improve., land, vehicles.

Regression specification:

$$\mathit{Inv.Dummy}_{f,s,t} = b_1 \Delta \mathit{Limit}_{s,t} + b_2 \Delta \mathit{X}_{s,t} + \mathit{FE}_{\mathit{EmpBin} \times \mathit{Ind} \times \mathit{Year} \times \mathit{PassThrough}} + \varepsilon_{f,s,t}$$

	Equipment		Furn	iture	Buildin	Building Imp. Land			Vehicle	
	Purch	Lease	Purch	Lease	Purch	Lease	Purch	Lease	Purch	Lease
ΔLimit_t	9.36*** (3.19)	-1.15 (1.07)	-0.10 (2.08)	-0.15 (0.30)	4.30 (2.83)	-0.37 (0.37)	2.07 (1.52)	0.33 (0.59)	5.05 (3.17)	-0.40 (0.96)
Observations Adjusted R^2	90,529 0.07	90,529 0.01	90,529 0.04	90,529 0.01	90,529 0.03	90,529 0.00	90,529 0.03	90,529 0.01	90,529 0.10	90,529 0.03



Robustness: Small business investment and changes in state Section 179 limit — Extensive Margin

<u>NFIB Data:</u> whether a small business purchased or leased equipment, furniture, building improve., land, vehicles.

Regression specification:

$$\mathit{Inv.Dummy}_{f,s,t} = b_1 \Delta \mathit{Limit}_{s,t} + b_2 \Delta \mathit{X}_{s,t} + \mathit{FE}_{\mathit{EmpBin} \times \mathit{Ind} \times \mathit{Year} \times \mathit{PassThrough}} + \varepsilon_{f,s,t}$$

	Equipment		Furn	iture	Buildin	Building Imp. Land			Vehicle	
	Purch	Lease	Purch	Lease	Purch	Lease	Purch	Lease	Purch	Lease
ΔLimit_t	9.36*** (3.19)	-1.15 (1.07)	-0.10 (2.08)	-0.15 (0.30)	4.30 (2.83)	-0.37 (0.37)	2.07 (1.52)	0.33 (0.59)	5.05 (3.17)	-0.40 (0.96)
Observations Adjusted R^2	90,529 0.07	90,529 0.01	90,529 0.04	90,529 0.01	90,529 0.03	90,529 0.00	90,529 0.03	90,529 0.01	90,529 0.10	90,529 0.03

