The Political Economy of Subsidy Giving

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Columbia GSB

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ASSA Annual Meeting

State and local subsidy-giving in the U.S.

State govts spend about $30B/year on incentives to attract firms and encourage expansions

- $\sim$ size of unemployment insurance (UI) program
- This is the primary place-based policy in the U.S.

One-third of the spending goes to handful of firms

- In 2014, states promised $7 billion to just 48 firms (promising $\sim$50,000 jobs)

State and local governments have a substantial amount of discretion

- Decide which firms get subsidies and how much, with little oversight

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- Decide which firms get subsidies and how much, with little oversight

Lack of transparency $\rightarrow$ subsidies may be allocated for political reasons

- Implications for distribution of resources within a state

New Jersey grants $1.25bn in public funds to firms that back Republicans

- Most top subsidies since 2012 went to firms that donate to GOP
- Chris Christie appointed close ally to 'bank for business' role
- Critics decry 'gross politicisation' of economic development
- The 30 top subsidies awarded by New Jersey since 2012

▲ Chris Christie appointed his close friend Michele Brown to head up the New Jersey economic development authority in October 2012. Photograph: Mel Evans/AP Photograph: Mel Evans/AP

Scott Walker to promote Foxconn deal with regional ads for each corner of Wisconsin

From the Cap Times election roundup: Coverage of the Wisconsin governor's race series

Jessie Opoien | The Capital Times | Jul 31, 2018

Scott Walker campaign ad

S tarting Tuesday, Gov. Scott Walker will be selling Foxconn to every corner of Wisconsin.

Stylized Fact: Govs spend more on subsidies when running for re-election

When Do States Increase Incentive Spending?

	Per capita incentives increase by 20 percent					
Governor can run as incumbent	0.05 (0.06)				−0.02 (0.06)	−0.02 (0.06)
Election year		0.11* (0.06)			−0.08 (0.10)	−0.07 (0.10)
GDP per capita ($1,000) in $t-1$			0.00 (0.01)			0.02* (0.01)
Percent of population employed in $t-1$				−0.05 (0.03)		−0.09** (0.04)
Governor can run as incumbent × election year					0.27** (0.11)	0.25** (0.11)
Observations	336	336	336	336	336	336
R^2	0.17	0.18	0.17	0.18	0.20	0.21

Slattery & Zidar (2020)

WTP 20% more than term-limited gov for average manuf. estab. in subsidy competition

This Paper: The Political Economy of Subsidy-Giving

1. **Does subsidy-winning affect election outcomes for incumbent politicians?**
   - Are subsidy-winning counties more likely to support the incumbent governor?
     ▶ Are there spillovers to same-party legislators?
   - Is the effect due to realized or anticipated job creation/economic growth?

This Paper: The Political Economy of Subsidy-Giving

1. Does subsidy-winning affect election outcomes for incumbent politicians?

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- Is the effect due to realized or anticipated job creation/economic growth?

2. How does the potential political benefits to subsidy-giving affect the allocation of economic development spending?

- Which types of firms get the most $? When in the election cycle? Where in the state?

Background and Data on Discretionary Subsidies

Subsidy Data

Company	Year	Winner	Runner-up	Subsidy ($M)	Jobs at Stake	Invest ($M)	N
Hyundai	2002	Montgomery, AL	Hardin, KY	234.6	2,000	1,000	4
Fidelity Investments	2006	Wake, NC	Duval, FL	88.2	2,000	100	6
Volkswagen	2008	Hamilton, TN	Limestone, AL	446.3	2,000	1,000	12
American Greetings	2011	Cuyahoga, OH	Cook, IL	146.1	1,700	10	3
Samsung	2015	Santa Clara, CA	Travis, TX	25.0	350	195	2

Also: industry, new vs. retained jobs, some info on sources of $

Sources: Subsidy Tracker + Site Selection , Articles on Subsidy Deals ,
Tax Expenditure Reports , and State Budget Documents

396 subsidies, average $160M, 1,500 jobs (2002-2017)

Subsidy Competition: Framework

In most cases, governors are not going out to recruit firms

- Firm has a site selection process, contacts states on shortlist
- Governor, locality, decide how much they are WTP, and bargain on incentive package
  - ▶ Can include $ from state and local government, tax rebates and cash/in-kind transfers
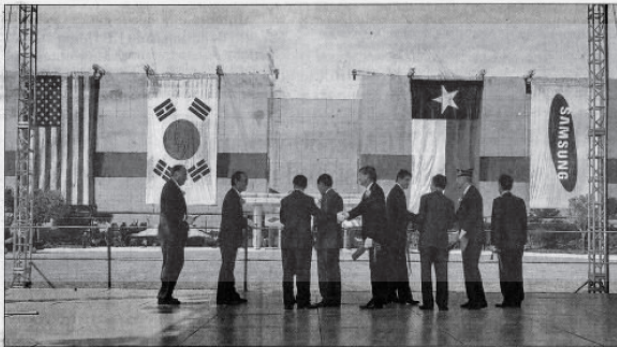   Example Deal

Local papers cover deal, possible jobs

- Even before the firm has made decision
- Governor often has press conference when finalized, and ribbon cutting when breaking ground

Big cheer for Samsung chip plant

Governor, singer and a bald eagle help dedicate new factory in Austin

By Kirk Ladendorf
AMERICAN-STATESMAN STAFF

Samsung Electronics Co. Ltd. employed the University of Texas Longhorn Band, UT cheerleaders, pop singer LeAnn Rimes and a bald eagle to help dedicate its newest chip factory — which will be the largest in Texas and one of the largest foreign investments ever in the United States.

The South Korean electronics giant has completed construction on the massive Fab 2 complex. Now comes the monthslong process of installing manufacturing equipment and getting the factory ready for commercial production of advanced flash memory chips before the end of this year.

The $3.5 billion factory becomes a critical part of Samsung's plans to stay on top of the market for NAND flash memory chips, which are crucial to the operation of portable music players, digital cameras and camcorders as well as cell phones.

On statesman.com: For more photos from the ribbon cutting, see this story online.

The new Samsung

Political Data

Election Results

- County level votes for Governor (David Leip Election Atlas, 2002-2018)
- District level votes for State Senate, House/Assembly (Klarner, 2018)

Approval Ratings

- U.S. Official Job Approval Ratings by State (through 2010)
- MorningConsult/Ballotpedia (2015-2019)

Campaign Contributions

- Database on Ideology, Money in Politics, and Elections (Bonica, 2016)

Political Advertisements

- Wisconsin Advertising Project (2002-2008)
- Wesleyan Media Project (2006-2016)

Subsidy-Giving and Voting

Does winning a subsidy affect voting behavior?

Sample: 122 incumbent governors run for re-election (2002-2018)

- 67 incumbent governors win subsidies in 149 unique counties

Strategy: Compare voting in treated counties with comparable counties in the same state.

For governor (g), county (c), state (s), election year (e)

$$\% \text{ vote}_{gcse} = \alpha + \beta \text{win}_{gcs[e-1,e]} + \gamma X_{gcse} + \eta_{se} + \epsilon_{gcse}$$

- Where $\text{win}_{gcs[e-1,e]} = 1$ if governor g won a subsidy deal for county c since last election ($e-1$)

Control groups: (1) all untreated counties, (2) most profitable counties for subsidized firm(s) **More** , (3) runner-up counties in same state **Descriptive Statistics**

Governor Vote Share Results

	All Counties		
Subsidy Deal Winner	0.44	0.87	0.89
	(0.44)	(0.46)	(0.44)
Unemployment (%)	-0.23	-0.30	-0.21
	(0.05)	(0.05)	(0.06)
% Vote in Previous Election	0.85	0.85	0.88
	(0.01)	(0.01)	(0.01)
% Black		0.03	0.05
		(0.01)	(0.01)
% Hispanic		0.00	0.00
		(0.01)	(0.01)
% Urban		-0.01	-0.01
		(0.00)	(0.00)
log(Population)		-0.13	-0.36
		(0.08)	(0.10)
log(Average Housing Price)			0.56
			(0.28)
log(Personal Income Per Capita)			1.37
			(0.58)
Observations	4,985	4,985	4,051
R-squared	0.89	0.89	0.90
State × Year FE	×	×	×

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0.89pp ⇑ in vote share

∼900 votes at the median

∼1,500 at the mean

Governor Vote Share Results

	All Counties			Top Profit Counties		
Subsidy Deal Winner	0.44	0.87	0.89	1.24	1.30	1.40
	(0.44)	(0.46)	(0.44)	(0.43)	(0.48)	(0.48)
Unemployment (%)	-0.23	-0.30	-0.21	0.23	0.12	0.26
	(0.05)	(0.05)	(0.06)	(0.11)	(0.12)	(0.13)
% Vote in Previous Election	0.85	0.85	0.88	0.94	0.94	0.96
	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
% Black		0.03	0.05		0.07	0.07
		(0.01)	(0.01)		(0.03)	(0.03)
% Hispanic		0.00	0.00		-0.01	-0.02
		(0.01)	(0.01)		(0.03)	(0.03)
% Urban		-0.01	-0.01		-0.01	-0.01
		(0.00)	(0.00)		(0.01)	(0.01)
log(Population)		-0.13	-0.36		-0.20	-0.13
		(0.08)	(0.10)		(0.19)	(0.20)
log(Average Housing Price)			0.56			-0.01
			(0.28)			(0.72)
log(Personal Income Per Capita)			1.37			1.16
			(0.58)			(1.09)
Observations	4,985	4,985	4,051	787	787	686
R-squared	0.89	0.89	0.90	0.92	0.92	0.92
State × Year FE	×	×	×	×	×	×

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		(0.01)	(0.01)		(0.03)	(0.03)
% Hispanic		0.00	0.00		-0.01	-0.02
		(0.01)	(0.01)		(0.03)	(0.03)
% Urban		-0.01	-0.01		-0.01	-0.01
		(0.00)	(0.00)		(0.01)	(0.01)
log(Population)		-0.13	-0.36		-0.20	-0.13
		(0.08)	(0.10)		(0.19)	(0.20)
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Observations	4,985	4,985	4,051	787	787	686
R-squared	0.89	0.89	0.90	0.92	0.92	0.92
State × Year FE	×	×	×	×	×	×

1.40pp ⇑ in vote share

~1,400 votes at the median

~2,300 at the mean

Governor Vote Share Results

	All Counties			Top Profit Counties			Control = Runner-ups		
Subsidy Deal Winner	0.44	0.87	0.89	1.24	1.30	1.40	2.16	2.29	2.29
	(0.44)	(0.46)	(0.44)	(0.43)	(0.48)	(0.48)	(0.65)	(0.66)	(0.65)
Unemployment (%)	-0.23	-0.30	-0.21	0.23	0.12	0.26	-0.10	-0.26	-0.25
	(0.05)	(0.05)	(0.06)	(0.11)	(0.12)	(0.13)	(0.22)	(0.26)	(0.28)
% Vote in Previous Election	0.85	0.85	0.88	0.94	0.94	0.96	0.92	0.92	0.93
	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)
% Black		0.03	0.05		0.07	0.07		0.01	0.00
		(0.01)	(0.01)		(0.03)	(0.03)		(0.04)	(0.04)
% Hispanic		0.00	0.00		-0.01	-0.02		0.02	0.03
		(0.01)	(0.01)		(0.03)	(0.03)		(0.05)	(0.05)
% Urban		-0.01	-0.01		-0.01	-0.01		-0.01	-0.00
		(0.00)	(0.00)		(0.01)	(0.01)		(0.01)	(0.01)
log(Population)		-0.13	-0.36		-0.20	-0.13		-0.56	-0.61
		(0.08)	(0.10)		(0.19)	(0.20)		(0.41)	(0.44)
log(Average Housing Price)			0.56			-0.01			-2.98
			(0.28)			(0.72)			(1.64)
log(Personal Income Per Capita)			1.37			1.16			4.34
			(0.58)			(1.09)			(2.29)
Observations	4,985	4,985	4,051	787	787	686	278	278	268
R-squared	0.89	0.89	0.90	0.92	0.92	0.92	0.92	0.92	0.93
State × Year FE	×	×	×	×	×	×	×	×	×

State Legislature Vote Share Results: Senate

Interested in subsidy-winning effect in legislature, but the vote share data is at the district level

- Analysis compares across legislators within the state, or within a county

	State × Year FE						County × Year FE		
District Subsidy Win	1.65	0.82	0.32	-0.21			-0.03	-2.39	
	(0.68)	(0.70)	(0.98)	(0.99)			(1.04)	(1.33)	
Same Party as Governor			0.79	0.71	0.27	0.26		0.32	-0.31
			(0.41)	(0.42)	(0.55)	(0.57)		(0.47)	(0.61)
District Subsidy Win × Same Party			2.20	1.71				3.66	
			(1.22)	(1.22)				(1.34)	
State Subsidy Win × Same Party					1.55	1.23			1.27
					(0.78)	(0.85)			(0.96)
Observations	4,522	4,317	4,522	4,317	4,522	3,843	5,034	5,034	4,388
R-squared	0.51	0.53	0.51	0.53	0.51	0.54	0.68	0.68	0.69
Additional Controls		×		×		×		×	

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Additional Controls		×		×		×			

Subsidy-winning effect only realized if state senator is in the same party as the governor

- State senators even get 'subsidy win' boost for subsidies outside district
  - ▶ Party Affiliation not as important in House/Assembly elections Results

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Incumbent Votes and Subsidy-Giving

Summary:

- Vote share for the incumbent governor increases by 0.9-2.3pp in winning **county**
    - ▶ This is small, the average incumbent governor wins **state** with 56% of the votes More
- Vote share for the incumbent state senator increases by 1.7-3.7pp in winning **district**, but only for state senators in the same party as the governor!

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Potential Mechanisms:

1. Subsidy creates jobs and improves local economic outcomes, generating incumbent votes
2. Voters anticipate jobs, subsidy signals governor is making effort to improve local outcomes

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Test: Hypothesis (1) suggests effect should be larger for subsidy-giving earlier in the term, while (2) suggests effect should be largest for most recent announcements of subsidy deals.

Vote Share Results by Date of Subsidy Deal
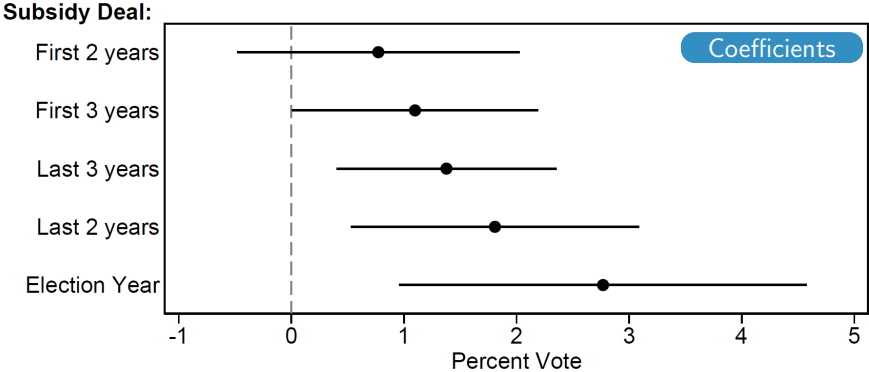
Subsidy in start of term has less than 1/3 of the effect of a subsidy in the election year

Vote Share Results by Date of Subsidy Deal
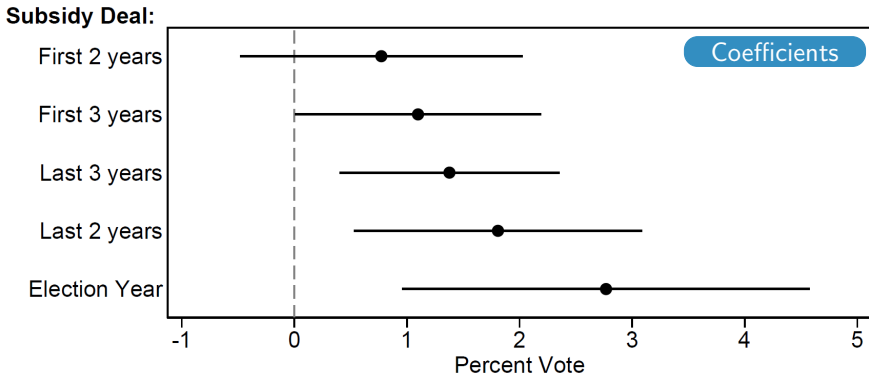
Subsidy in start of term has less than $1/3$ of the effect of a subsidy in the election year

- Salience of deal and anticipated economic effect more important than realized outcomes
- Consistent with recent work on ARRA infrastructure spending (Huet-Vaughn 2019) and finding that subsidies do not spur local economic growth (Slattery and Zidar 2020)

Salience: Local News Coverage and Advertising

Montgomery Advertiser

SPECIAL REPORT: Hyundai unveils facility details

Wedne

Officials foresee deal's benefits

By Kelli M. Dugan
Montgomery Advertiser

After the applause faded and the crowd began to dissipate, Gov. Don Siegelman and Hyundai Motor Co. President Don Jin Kim braced for the hard questions surrounding the $1 billion plant near Hope Hull.

Journalists from across the state convened for a brief question and answer session following Tuesday's ceremonial groundbreaking for a 2-million-square-foot automotive manufacturing plant — the Korean automaker's first in this country.

From workforce development and the role robotics will play in the facility to determining factors that led to Montgomery being the final choice for the coveted site, Siegelman and Kim fielded questions that have been circulating since the first mention that Hyundai could locate in Alabama.

Before the first question was fired, Siegelman called the partnership "a marriage of two strong willed people determined to make

Governor

Mayor

Congressman
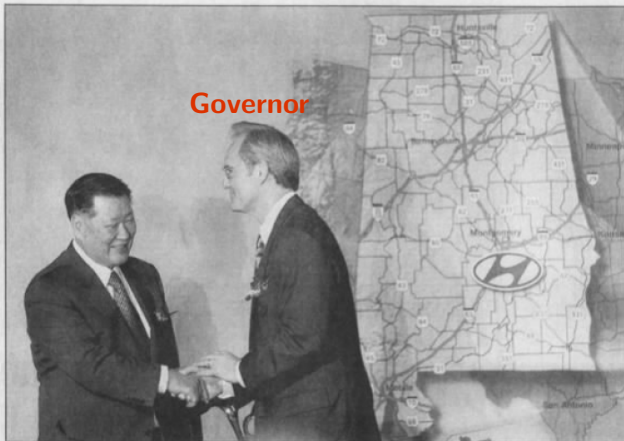
Mickey Welsh Advertiser

Hyundai Motor Co. Chairman Mong Koo Chung, left, and Gov. Don Seigelman, right, greet each other Tuesday during the groundbreaking ceremony for the Hyundai plant near Montgomery. Siegelman called the deal between Alabama and Hyundai 'a marriage between two strong-willed people determined to make the best, highest quality automobile in the world'.

Montgomery Mayor Bobby Bright, left, chats with U.S. Rep. Earl Hilliard, right, during Tuesday's groundbreaking ceremony near Montgomery.

13 / 16

Salience: Local News Coverage and Advertising

Advertising Data: "Siegelman New Jobs" (2002)

[Announcer]: Even during the hardest of economic times, Don Siegelman has worked

to bring thousands of new jobs to Alabama with Honda, Mercedes,

Toyota, and now Hyundai. Alabama has become one of the world's leading car producers.

Other companies have come too like

Bell Microproducts and NaviStar. In fact Don Siegelman has helped

bring more than 68,000 new jobs to Alabama.

subsidy data

advertising

Summary: Does subsidy winning affect election outcomes?

Small positive effect on vote share for incumbent governors in subsidy-winning counties

Similarly, small positive effect for state legislators in subsidy-winning districts

- State senate election effect specific to state senators in same party of governor
- Same-party effect spills over to non-subsidy winning districts

Effect largest when subsidy-deal announced in an election year

- Suggesting mechanism is the salience of the deal rather than realized outcomes that generate incumbent votes
- Plentiful anecdotal data on news coverage of subsidy deals and political ads touting job creation from attracting specific firms

How do political concerns affect the distribution
of subsidy dollars across firms, time, space?

Subsidy-Giving and Politics: An Overview

1. Politics and Subsidy Size:

   Democrats pay more for democrat jobs.

2. Politics and Subsidy Timing:

   Governors are more likely to give subsidies when they have lower approval ratings, higher unemployment rates, and are running for re-election and can benefit from lax campaign finance regulations

3. Politics and Subsidy Location:

   There is little effect of politics on the location of subsidies within a state.

Conclusion: Politicization is limited, economic benefit is highly anticipated.

Subsidy-giving is the primary place based policy in the US

- Lack of transparency raises concerns that subsidies are allocated for political reasons
- Previous work finds governors spend more on subsidies when running for re-election

In the aggregate, little evidence for the explicit politicization of subsidy-giving

- Subsidy-giving more likely when governor has lower approval ratings (higher unemployment)
- No effect on where subsidized firms locate within a state
  - ▶ Consistent with anecdotal evidence on firms' site selection process
- No effect on firm's political affiliation (some preference for same party employees)

Conclusion: Politicization is limited, economic benefit is highly anticipated.

Re-election effect likely driven by governors putting more effort (Besley and Case 1995)

- Subsidy-giving is an immediate, salient job creation tool

Both politicians and voters *anticipate greater economic benefits* than are realized

Politicians put substantial weight on anticipated spillovers when determining WTP for a given firm (Slattery 2020), but local spillovers do not materialize (Slattery and Zidar 2020)

Voters are most affected by a subsidized firm arriving in their county when the subsidy deal is announced in the election year. The effect precedes the actual arrival of the firm, and dissipates with time, when the actual jobs and benefits should be realized.

Thank You

Questions? Comments? E-mail: cailin.slattery@columbia.edu

Assembling a list of deals

Subsidy Tracker Individual Entry

Company: Microchip

Parent Company:

Subsidy Source: state

Location: Oregon

City: Gresham

Project Description:

Semiconductor fabrication

Year: 2002

Subsidy Value: $13,100,000

Program Name: Strategic Investment Program

Awarding Agency: Business Oregon

Type of Subsidy: property tax abatement

Source of Data:

Direct from Business Oregon; not on web

Notes:

Year is year of approval; subsidy value is cumulative amount of abatement through 2010

ARCHIVE
Incentives Deal of the Month
from *Site Selection*'s exclusive New Plant database

December 2002	Oregon Incentives, Idle Plant Are 'Fab' for Microchip's Expansion Plans
November 2002	South Carolina's $17M in Incentives Lure 14-Employee Biotech Firm from North Carolina
October 2002	New South Carolina Incentives Spur BMW's $400M, 400-Job Expansion
September 2002	Kansas Incentives Keep Goodyear's 1,700-Worker Plant Online in Topeka
August 2002	$140M Project at Risk? Ford, Ohio at Odds over $83M Incentive Package
July 2002	Mississippi's $68M Incentive Package Fuels $500M, 1,300-Job Nissan Expansion
June 2002	Rhode Island Settles Land Spat, Clears Way for $100M Dow, Fidelity Expansions
May 2002	Hornets, Saints Get Multimillions, but Louisiana's New Incentives Have Far Broader Focus
April 2002	New York's $500M Incentive Package Aims to Retain Lower Manhattan Firms
February 2002	$17 Million in Incentives Help Maine Land 400-Worker Wal-Mart Distribution Center
January 2002	$150,000 Award Will Keep 40-Year-Old Neighborhood Grocery Open in Akron, Ohio

December, 2002
Incentives Deal of the Month
from *Site Selection*'s exclusive New Plant database

Oregon Incentives, Idle Plant Are 'Fab' for Microchip's Expansion Plans

by **JACK LYNE**, *Site Selection* Executive Editor of Interactive Publishing and **ADAM BRUNS**, *Site Selection* Managing Editor

GRESHAM, Ore. – Spurred by US$17.3 million in state incentives, Microchip Technology (www.microchip.com) has hired the first 60 of what may be as many as 688 employees at its newly acquired facility in Gresham, Ore. - a turnaround that one local official calls "a miracle."

At full capacity, the 826,500-sq.-ft. (76,782-sq.-m.) facility that Microchip purchased (pictured) will double the company's chip-production capacity.

Gresham had needed something like an economic miracle since late last year. That was when Fujitsu announced that is was shutting down its local flash-memory plant, laying off 670 employees. The 826,500-sq.-ft. (76,782-sq.-m.) facility - Fujitsu's first U.S. fab - had been sitting idle since early this year, edging dangerously close to white-elephant status. Razing had become a distinct possibility in the facility's future.

Enter Microchip Technology. The company, which makes microcontrollers embedded a wide array of commercial, industrial and consumer products, was no stranger to the Pacific Northwest. In 2000, Microchip bought an existing Matsushita fab in Puyallup, Wash., 155 miles (249 kilometers) north of Gresham. The Puyallup fab, which is also currently idle, was the clear

2 / 36

Electrolux Home Products, Inc. ("EHPI")

In addition to North Carolina, EHPI management considered two other potential locations: South Carolina and Tennessee. South Carolina offered several desirable locations in York and Lancaster Counties. South Carolina submitted a formal proposal that included significant up-front cash incentives and cash grants valued at approximately $54 million. EHPI recently established a large manufacturing facility in Memphis, Tennessee. That facility was located there after extensive analysis of the incentives offered in Tennessee, Alabama, and North Carolina. Tennessee was chosen in large part due to its superb incentive package.

Calendar Year 2013 Legislative Report 16

- Nexteer Automotive (Steering Solutions Services Corporation) - The former steering division of Delphi Corporation, which operates in **Saginaw** under the Nexteer brand name, is the only global Tier One automotive supplier focused on advanced steering and driveline systems technology. The company plans to invest $413 million to actively pursue diverse new business opportunities. The project will retain 8,711 total jobs, including 2,400 directly by the company. The MEDC estimates the increased economic activity created by the project will retain an additional 6,311 indirect jobs. Based on the MEDC's recommendation, the MEGA board today approved a state tax credit valued at $70.7 million over 10 years to encourage the company to expand in Michigan over competing sites in Europe and China. Buena Vista Charter Township is considering an abatement in support of the project. http://www.nexteer.com/

Back

Table 3.1
Fiscal Year Tax Credits
Returns Processed During Fiscal Year 2015

Code Section(s)	Credit	Year Enacted	Credit Claimed Against	Number of Returns	Amount
§§ 58.1-439.18 et seq.	Neighborhood Assistance Act Credit	1981 (effective July 1, 1981)	Individual, Corporate, Insurance and Bank	4,393	$14,512,830
§ 59.1-280	Enterprise Zone Business Tax Credit	1982 (effective July 1, 1982)	Individual, Corporate, Insurance and Bank	12	1,218,516
§§ 58.1-334 & 58.1-432	Conservation Tillage Equipment Credit	1985 (effective 1985)	Individual and Corporate	255	486,727
§ 58.1-435	Low-Income Housing Credit	1989 (effective 1990)	Individual, Corporate, Insurance and Bank	*	15,542
§§ 58.1-337 & 58.1-436	Advanced Technology Pesticide and Fertilizer Application Equipment Credit	1990 (effective 1990)	Individual and Corporate	99	156,193
§ 58.1-438.1	Tax Credit for Vehicle Emissions Testing Equipment and Clean-Fuel Vehicles and Certain Refueling Property	1993 (effective 1993)	Individual and Corporate	41	9,482
§ 58.1-439	Major Business Facility Job Tax Credit	1994 (effective 1995)	Individual, Corporate and Insurance	74	4,109,769
§ 58.1-439.2	Coalfield Employment Enhancement Credit (Refundable)	1995 (effective 1996)	Individual and Corporate	49	28,363,515
§ 58.1-439.1	Clean Fuel Vehicle and Advanced Cellulosic Biofuels Job Creation Tax Credit	1995 (effective 1996)	Individual and Corporate	191	307,062
§ 59.1-280.1	Enterprise Zone Real Property Investment Tax Credit (Refundable)	1995 (effective July 1, 1995)	Individual and Corporate	0	0
§ 58.1-339.2	Historic Rehabilitation Tax Credit	1996 (effective 1997)	Individual, Corporate, Insurance and Bank	1,038	97,998,279
§ 58.1-439.4	Day-Care Facility Investment Credit	1996 (effective 1997)	Individual and Corporate	0	0
§§ 58.1-339.3 & 58.1-439.5	Agricultural Best Management Practices Tax Credit	1996 (effective 1998)	Individual and Corporate	471	1,144,933
§ 58.1-439.6	Worker Retraining Tax Credit	1997 (effective 1999)	Individual, Corporate, Insurance and Bank	6	160,926
§ 58.1-439.7	Recyclable Materials Processing Equipment Credit	1998 (effective 1999)	Individual and Corporate	91	623,285
§ 58.1-332.1	Foreign Tax Credit	1998 (effective 1998)	Individual Only	1,689	507,562
§ 58.1-339.4	Qualified Equity and Subordinated Debt Investments Tax Credit	1998 (effective 1999)	Individual Only	241	2,096,539
§ 58.1-439.10	Waste Motor Oil Burning Equipment Credit	1998 (effective 1999)	Individual and Corporate	62	124,387
§ 58.1-439.9	Tax Credit for Certain Employers Hiring Recipients of Temporary Assistance to Needy Families (TANF)	1998 (effective 1999)	Individual and Corporate	0	0
§ 58.1-512	Land Preservation Tax Credit	1999 (effective 1999)	Individual and Corporate	3842	67,668,579
§ 58.1-339.6	Political Candidates Contribution Tax Credit	1999 (effective 2000)	Individual Only	17,357	604,377
§ 58.1-339.7	Livable Home Tax Credit	1999 (effective 2000)	Individual and Corporate	284	823,494
§ 58.1-433.1	Virginia Coal Employment and Production Incentive Tax Credit	1999 (effective 2001)	Corporate Only	7	8,909,576
§ 58.1-339.8	Low-Income Taxpayer Credit	2000 (effective 2000)	Individual Only	364,370	133,791,162
§§ 58.1-339.10 & 58.1-439.12	Riparian Forest Buffer Protection for Waterways Tax Credit	2000 (effective 2000)	Individual and Corporate	98	229,754
§ 58.1-339.9	Rent Reductions Tax Credit	2000 (effective 2000)	Individual and Corporate	0	0
§ 58.1-339.11	Long-term Care Insurance Tax Credit	2006 (effective 2006)	Individual Only	4,081	1,174,845
§ 58.1-439.12:02	Biodiesel and Green Diesel Fuels Producers Tax Credit	2008 (effective 2008)	Individual and Corporate	0	0
§ 58.1-439.12:05	Green Job Creation Tax Credit	2010 (effective 2010)	Individual and Corporate	*	752
§ 58.1-439.12:04	Tax Credit for Participating Landlords (Community of Opportunity)	2010 (effective 2010)	Individual and Corporate	20	42,041
§ 58.1-339.12	Farm Wineries and Vineyards Tax Credit	2011 (effective 2011)	Individual and Corporate	63	180,535
§ 58.1-439.12:03	Motion Picture Production Tax Credit (refundable)	2011 (effective 2011)	Individual and Corporate	4	7,176,474
§ 58.1-439.12:01	International Trade Facility Tax Credit	2011 (effective 2011)	Individual and Corporate	13	146,096
§ 58.1-439.12:08	Research and Development Expenses Tax Credit (Refundable)	2011 (effective 2011)	Individual and Corporate	317	4,210,012
§ 58.1-439.12:09	Barge and Rail Usage Tax Credit	2011 (effective 2011)	Individual, Corporate, Insurance and Bank	*	41,700
§ 58.1-439.12:10	Virginia Port Volume Increase Tax Credit	2011 (effective 2011)	Individual and Corporate	34	736,816
§ 58.1-439.12:07	Telework Expenses Tax Credit	2011 (effective 2012)	Individual and Corporate	10	112,843
§ 58.1-439.26	Education Improvement Scholarships Tax Credits	2012 (effective 2013)	Individual, Corporate, Insurance and Bank	347	1,613,525

LIS

STATE BUDGET

Budget Bill ▾ | Search | 🔍

2015 Session ▾

• Budget Bill

2014 - 2016 Biennium

HB1400
› Introduced
› Enrolled
› **Chapter 665**

SB800
› Introduced

Budget Amendments

Committee Reports

2015 Session

Budget Bill - HB1400 (Chapter 665)

Bill Order » Office of Commerce and Trade » Item 101

🖶 Item → | 🖶 Print | 📄 PDF | ✉ Email | Item Lookup | ex. 43, C-1, 3-3.01 | 🔍

Economic Development Incentive Payments

Item 101	First Year - FY2015	Second Year - FY2016
Economic Development Services (53400)	~~$52,160,436~~	~~$67,863,444~~
	$62,076,436	$79,363,444
Financial Assistance for Economic Development (53410)	~~$52,160,436~~	~~$67,863,444~~
	$62,076,436	$79,363,444
Fund Sources:		
General	~~$51,910,436~~	~~$67,613,444~~
	$61,826,436	$79,113,444
Dedicated Special Revenue	$250,000	$250,000

Authority: Discretionary Inclusion.

A.1. Out of the amounts in this Item, ~~$10,000,000~~ *$19,916,000* the first year and ~~$10,000,000~~ *$20,750,000* the second year from the general fund shall be deposited to the ~~Governor's~~ *Commonwealth's* Development Opportunity Fund, as established in § 2.2-115, Code of Virginia. Such funds shall be used at the discretion of the Governor, subject to prior consultation with the Chairmen of the House Appropriations and Senate Finance Committees, to attract economic development prospects to locate or expand in Virginia. If the Governor, pursuant to the provisions of § 2.2-115, E.1., Code of Virginia, determines that a project is of regional or statewide interest and elects to waive the requirement for a local matching contribution, such action shall be included in the report on expenditures from the ~~Governor's~~ *Commonwealth's* Development Opportunity Fund required by § 2.2-115, F., Code

Back

5 / 36

What's in a Subsidy Deal: VW and Tennessee (2008) Back

VW chooses Chattanooga for new assembly plant, promising 2,000 jobs and $1B investment

- TN grants VW a subsidy worth **$558 million**
  - ▶ Local property tax abatements over 30 years ($200M)
  - ▶ Enhanced state job and investment tax credits over 20 years ($200M)
  - ▶ Property given to VW ($81M), Worker training ($30M)
  - ▶ Highway and road construction ($43M) + Rail line upgrades ($3.5M)

Deal was negotiated by Gov. Phil Bresenden and Sen. Bob Corker, then approved by the TN General Assembly

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Site Selection Magazine reports:

> *A team of 25 people with Staubach worked on the project, helping VW consider an initial pool of more than 100 candidate sites, all located in the central or eastern U.S. because of time-zone proximity to Germany. ... VW said it short-listed 25 sites. "It was then a dozen or so we were in discussions with until the three finalists," says Lubar.*

How do I predict county-level profits?

This is borrowed from my paper on subsidy competition (Slattery 2020):

- The subsidy competition model implies that the winning location should give the firm the payoff it would receive in the runner-up:

$$\underbrace{\pi_{\text{winner}} + b_{\text{winner}}}_{\text{payoff in winning place}} \approx \underbrace{\pi_{\text{runner-up}} + v_{\text{runner-up}}}_{\text{payoff in runner-up place}}$$

- I parameterize the functions π (firm profits) and v (location WTP)

- I have data on winning subsidies, and winning and runner-up location characteristics

- I can estimate this equation to recover the parameters of firm profits
  - ▶ Parameterization allows for heterogeneity across industries and firm size

- I use those estimates to predict profits across counties

Back

Descriptive Statistics for County Vote Share Analysis

	All Counties			Winning			High-Profit			Runner-ups		
	Mean	Med.	SD	Mean	Med.	SD	Mean	Med.	SD	Mean	Med.	SD
log(Population)	10.26	10.15	1.48	12.49	12.68	1.37	11.23	11.34	1.61	12.49	12.54	1.39
Unemployment (%)	5.94	5.49	2.35	6.29	5.92	2.33	5.98	5.67	2.27	5.98	5.67	1.96
% Black	7.92	3.60	10.44	14.43	11.40	12.56	8.04	3.74	10.29	12.72	7.77	12.39
% Hispanic	8.18	3.61	11.79	10.08	5.20	12.20	7.78	4.99	8.82	9.49	5.37	9.23
% Urban	31.46	17.47	36.41	69.67	100.00	40.72	47.91	42.54	44.28	66.20	100.00	41.31
log(Average Housing Price)	4.78	4.73	0.52	5.08	4.98	0.53	5.27	5.24	0.53	5.15	5.05	0.58
log(Personal Income Per Capita)	10.40	10.39	0.29	10.62	10.58	0.30	10.57	10.55	0.32	10.66	10.60	0.30
% Turnout in Previous Election	32.58	31.76	9.63	30.17	29.25	8.34	31.50	30.89	8.62	28.66	28.20	7.24
% Vote in Previous Election	55.60	55.64	14.30	54.26	52.72	12.10	55.47	56.03	13.77	53.97	54.82	14.29

Back

State Legislature Vote Share Results: House/Assembly

	State × Year FE						County × Year FE		
District Subsidy Win	1.06	0.62	0.98	0.60			1.24	1.26	
	(0.35)	(0.36)	(0.49)	(0.50)			(0.59)	(0.67)	
Same Party as Governor			-0.72	-0.75	-0.74	-0.77		-1.13	-0.92
			(0.18)	(0.18)	(0.23)	(0.24)		(0.18)	(0.22)
District Subsidy Win × Same Party			0.16	0.07				-0.22	
			(0.62)	(0.62)				(0.61)	
State Subsidy Win × Same Party					0.07	-0.00			-0.57
					(0.34)	(0.36)			(0.37)
Observations	20,069	19,077	20,069	19,077	20,069	17,592	25,876	25,876	23,934
R-squared	0.76	0.77	0.76	0.77	0.76	0.77	0.85	0.85	0.85
Additional Controls		×		×		×			

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Same Party as Governor			-0.72	-0.75	-0.74	-0.77		-1.13	-0.92
			(0.18)	(0.18)	(0.23)	(0.24)		(0.18)	(0.22)
District Subsidy Win × Same Party			0.16	0.07				-0.22	
			(0.62)	(0.62)				(0.61)	
State Subsidy Win × Same Party					0.07	-0.00			-0.57
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R-squared	0.76	0.77	0.76	0.77	0.76	0.77	0.85	0.85	0.85
Additional Controls		×		×		×			

Unlike in the state senate, the subsidy-winning effect is independent of party for state legislators in the house/assembly

- Also, there is no spillover, or 'subsidy win' boost for subsidies outside the district

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District Subsidy Win	1.06	0.62	0.98	0.60			1.24	1.26	
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Additional Controls		×		×		×			

Unlike in the state senate, the subsidy-winning effect is independent of party for state legislators in the house/assembly

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State Level Election Results

Sample: 122 incumbent governors run for re-election (2002-2018)

Strategy: For governor (g), state (s), election year (e)

$$\% \text{ vote}_{gse} = \alpha + \beta \text{win}_{gs[e-1,e]} + \gamma X_{gse} + \eta_e + \epsilon_{gse}$$

- Where $\text{win}_{gs[e-1,e]} = 1$ if governor g won a subsidy deal since last election ($e-1$)
- X_{se}: unemployment, change in manuf. emp, % with BA, income tax, corporate tax, property tax, sales tax, % vote in previous election, # of campaign ads, # of competitors, total ad spending

Descriptive Analysis: Comparing across governors, so no way to control for other unobservables on governor "type."

Incumbent Elections: Descriptive Statistics

Incumbent	N	Vote Share (%)		Economic Vars (%)		Advertising	
		Last	Current	Unemp	Δ Manuf Emp	% Jobs	$ per Vote
Subsidy Deal Winner	65	54.1	56.2	6.05	-0.89	46.1	8.98
Runner-up	23	56.5	57.4	4.91	-1.48	34.9	6.94
Neither	34	54.3	55.8	4.33	2.57	28.7	4.53

- Subsidy deal winners have higher unemployment rates, focus on jobs in their ads, and are in more competitive races

- Runner-ups and subsidy winners are both experiencing a decline in manufacturing employment

- All 3 groups are similar on election results
    - ▶ Runner-ups doing a little better in last election
    - ▶ Only 23 "true" runner-up elections (many winning states also runner-ups in same term)

Results: State Level "Effect" of Winning a Subsidy Deal

	All Incumbent Elections			
Subsidy Deal Winner	3.62*	2.24	3.70*	5.09**
	(1.79)	(1.84)	(1.73)	(1.85)
State Unemployment (%)	-2.53**	-1.99*	-0.00	0.27
	(0.88)	(0.85)	(0.72)	(0.96)
Top Personal Income Tax Rate (%)		-0.48	-0.71**	-0.38
		(0.34)	(0.26)	(0.37)
log(# TV Ads in Race)			-2.90***	
			(0.48)	
# of Challengers in Race			-1.36***	
			(0.39)	
log($ Cost of TV Ads in Race)				-2.88***
				(0.49)
Observations	122	122	101	69
R-squared	0.24	0.40	0.65	0.70
Subsidy Deal Winner: Mean	0.53	0.53	0.53	0.52

Back

Results: State Level "Effect" of Winning a Subsidy Deal

	All Incumbent Elections			
Subsidy Deal Winner	3.62*	2.24	3.70*	5.09**
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		(0.34)	(0.26)	(0.37)
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			(0.39)	
log($ Cost of TV Ads in Race)				-2.88***
				(0.49)
Observations	122	122	101	69
R-squared	0.24	0.40	0.65	0.70
Subsidy Deal Winner: Mean	0.53	0.53	0.53	0.52

3.7pp ⇑ in vote share
~0.44 std. dev.
35% govs w/in margin

Back

						% of Mean	% of SD
Subsidy Deal Winner:							
First 2 years	0.77					1.34	5.34
	(0.64)						
First 3 years		1.10				1.89	7.75
		(0.56)					
Last 3 years			1.38			2.35	9.89
			(0.50)				
Last 2 years				1.81		3.06	12.94
				(0.65)			
Election Year					2.77	4.64	19.78
					(0.92)		
Any year					1.40	2.41	10.0
					(0.48)		
Observations	538	595	641	561	457	686	
R-squared	0.93	0.93	0.92	0.92	0.92	0.92	

Subsidy Deals from "Siegelman New Jobs" Ad (2002)

Name: Honda

Location: Talladega County, AL

Year: 2002

Runner-up(s): Chatham GA, Charleston SC, Duval FL

Jobs Promised: 2000

Investment: $450M

Description: Expansion of Automobile Manufacturing Plant

Subsidy size (& details if possible): $73.15 (see note, tax breaks adjusted to 10 years)

Other $ available from state: all included in total

Sources: (1) *Good Jobs First* Subsidy Tracker

(2) "Car Wars: Honda's $450M Alabama Expansion Will Create 2,000 New Jobs" *Site Selection* Jul 15, 2002

(3) "Honda doubling Alabama plant size; 2,000 jobs: State expected to give about $90 million in tax breaks, training." *The Atlanta Journal-Constitution* Jul 10, 2002. Accessed using LexisNexis.

Number of Competitors: unknown

Notes: Economic Impact Estimate: "The study, conducted by the Auburn University School of Business, reported that Honda's expansion would create 5,300 direct and indirect jobs. The automaker's 2,000 new employees will draw annual average wages of $49,000 a year, while indirect jobs will average $29,000 a year, the study estimated." – Source (2)

"the automaker's 2,000-employee, $425-million expansion is getting an $89.7-million incentive package that includes: $45.1 million from the state for employee training, and road, sewer and water improvements; $33.1 million from the state and local area for various tax breaks, which will be allocated over a 20-year period; and $11.5 million from the city of Talladega and Talladega County for site preparation, and sewer and water improvements." – Source (2)

"Georgia officials, who to date have failed to snag any of the six auto plants that have landed in the Southeast during the past decade, have said their continued strategy is to court auto parts suppliers. But after a string of losses, the state appears to be shifting strategy. … Savannah, Charleston, S.C., and Jacksonville are reportedly finalists for the site." – Source (3)

Name: Hyundai
Location: Montgomery County, AL
Year: 2002
Runner-up(s): Hardin KY
Jobs Promised: 2000
Investment: $1B
Description: Automobile Manufacturing Plant
Subsidy size (& details if possible): $234.6M ($118M from state, see note)
Other $ available from state: included in total
Sources: (1) *Good Jobs First* Subsidy Tracker
(2) "Hyundai's $1B Plant Alabama Bound After 11th-Hour Bargaining" *Site Selection* April 2002
(3) "Hyundai Receives $234.6 Million in Incentives from Alabama for Plant" *Lexington Herald-Leader* April 5, 2002
Number of Competitors: 4+
Notes: "The Montgomery location won out over a site near Glendale, Ky. Hyundai in late February dropped sites in Mississippi and Ohio from its location shortlist." – Source (2)
"the two states finished virtually even in the Hyundai incentives sweepstakes: Alabama on March 21 approved a $118.5 million incentive package. Kentucky's incentives came later, only gaining legislative approval on April 1, but they were slightly larger, totaling $123 million." – Source (2)
"The state and local governments chipped in $234.6 million, or about $117,300 for each of the 2,000 jobs to be created by Hyundai. The package also includes $18.2 million in private economic incentives, for a total of $252.8 million. The state government's portion is less than the incentives offered by Kentucky, said Carrie Kurlander, spokeswoman for Alabama Gov. Don Siegelman. On Saturday, Kentucky released details of a preliminary incentives package to try to lure Hyundai to Hardin County. The package was worth about $123 million, plus about $30 million for proposed improvements to Interstate 65. The state has since declined to release details of an enhanced package it assembled early Monday, before Hyundai announced it would build in Alabama. The largest allotment in the Alabama package, $76.7 million, is in credits for taxes on sales, property and corporate income. An additional $61.8 million will go to training, and $55 million will be used to improve the factory site in Hope Hull, Ala., which straddles the Montgomery city line." – Source (3)

Advertising on Subsidy Deals

Hypothesis: Subsidy deal is valuable as tool to signal that governor working hard to attract firms and create jobs for voters

- Electoral accountability may have a disciplining effect, but also can create incentive to pander to public opinion and disregard minority welfare (Maskin & Tirole 2004)

- Discretionary subsidies especially salient
  - ▶ May not be most cost-effective way to create jobs
  - ▶ Future effect on local economy is highly uncertain
  - ▶ BUT signals effort by governor, and guarantees concrete number of jobs with the firm

Advertising Data: Share of Ads Mentioning Jobs

Legend: subsidy winners (red dashed), no subsidy (black solid)
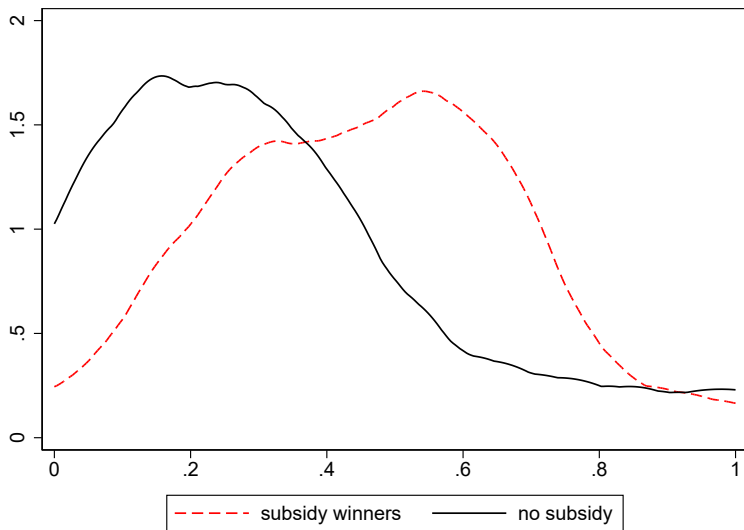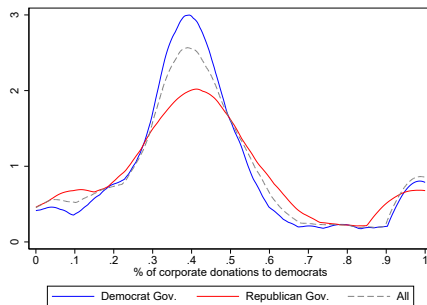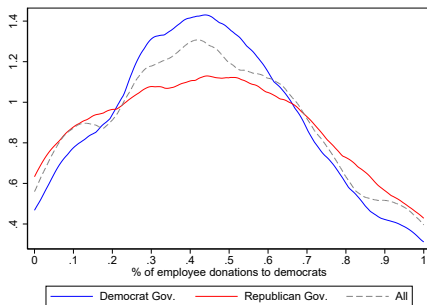
Measuring the political "affiliation" of firms

Match subsidized firms to campaign contribution data by company name

- Corporate and PAC contributions (if PAC has name of company)
- Individual contributions for individuals who list company as employer

Figure: Distribution of Political Affiliation (Democrat)

Example firms with high party affiliation

Democrat, by Employee Contrib		Democrat, by Corporate Contrib	
A123 Systems	MI	Adobe Systems	UT
ACTIVE Network	TX	Chiquita Brands	NC
Blue Sky Studios	CT	Chobani	ID
ImClone Systems	NJ	Electrolux	NC, TN
Monsanto	MO	Honda	AL, IN, NC
SolarCity	NY, UT	INC Research	NC
Switch	MI, NV	SpaceX	TX
Ulta	CA	Volvo	SC
Vadata	OH	Waste Not Technologies	KY

Republican, by Employee Contrib		Republican, by Corporate Contrib	
Cabela's	WV	ACTIVE Network	TX
Canon	NY, VA	Canon	NY, VA
Caterpillar	TX, NC, GA	Continental Tire	SC, MS
Continental Tire	SC, MS	Digi-Key Corporation	MN
Digi-Key Corporation	MN	Foxconn	WI
Goya Foods	NJ	Gartner Inc	CT
Hankook Tire	TN	Remington Arms	AL
Hertz	FL	USEC	OH
Nexteer Automotive	MI	Woodward	IL

Analysis: Is party affiliation correlated with subsidy size? \boxed{\text{Back}}

	Subsidy Size ($M)						
# Jobs Promised (1,000)	93.15	93.92	28.11	81.46	29.44	85.26	31.15
	(10.67)	(12.20)	(11.09)	(13.16)	(10.75)	(13.74)	(11.14)
Size of Investment Planned ($B)	17.17	16.32	68.35	15.26	58.74	14.98	64.53
	(2.59)	(2.81)	(8.30)	(2.93)	(7.67)	(3.01)	(8.16)
Manufacturing Firm	65.67	89.30	25.07	55.86	38.11	76.79	53.40
	(28.01)	(33.88)	(27.47)	(36.00)	(26.62)	(39.24)	(28.71)
Observations	397	314	284	289	264	264	237
R-squared	0.60	0.65	0.53	0.67	0.49	0.69	0.53
State FE	×	×		×		×	
Governor FE			×		×		×

	Subsidy Size ($M)						
# Jobs Promised (1,000)	93.15	93.92	28.11	81.46	29.44	85.26	31.15
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	(2.59)	(2.81)	(8.30)	(2.93)	(7.67)	(3.01)	(8.16)
Manufacturing Firm	65.67	89.30	25.07	55.86	38.11	76.79	53.40
	(28.01)	(33.88)	(27.47)	(36.00)	(26.62)	(39.24)	(28.71)
Democrat Governor		-151.44		-117.40		-216.16	
		(71.95)		(74.54)		(101.63)	
% Employee Contrib. to Dems		-28.15	-45.27			20.10	31.37
		(78.73)	(63.60)			(99.47)	(75.89)
% Corporate Contrib. to Dems				-124.40	-58.83	-126.23	-48.90
				(84.62)	(62.39)	(91.30)	(66.91)
Dem × % Employee Contrib. to Dems		232.47	139.23			207.31	90.04
		(123.20)	(99.41)			(150.79)	(112.11)
Dem × % Corporate Contrib. to Dems				195.89	77.97	184.86	60.38
				(129.65)	(95.28)	(144.13)	(105.67)
Observations	397	314	284	289	264	264	237
R-squared	0.60	0.65	0.53	0.67	0.49	0.69	0.53
State FE	×	×		×		×	
Governor FE			×		×		×

Analysis: Is party affiliation correlated with subsidy size?

	Subsidy Size ($M)		
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Manufacturing Firm	65.67	89.30	25.07
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Democrat Governor		-151.44	
		(71.95)	
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Dem × % Employee Contrib. to Dems		232.47	139.23
		(123.20)	(99.41)
Dem × % Corporate Contrib. to Dems			
Observations	397	314	284
R-squared	0.60	0.65	0.53
State FE	×	×	
Governor FE			×

Democrat affiliation ↑ 10pp
→ Dem subsidy ↑ $19M (11%)
Republican affiliation ↑ 10pp
→ Rep subsidy ↑ $3M (2%)

Controlling for Competition

In this analysis I use the residual from previous analysis, that controls for the competition for the runner-up location and the relative profitablility of the winning and runner-up place

- The residual is unexplained profits and valuation, from the winner or runner-up

- Pattern of larger $ for same-party employees persists, albeit a bit weaker

Democrat Governor	-53.46		9.25	
	(49.53)		(49.95)	
% Employee Contributions to Dems	-31.31	-44.56		
	(52.08)	(48.93)		
Dem × % Employee Contrib. to Dems	114.49	98.36		
	(84.57)	(79.82)		
% Corporate Contributions to Dems			-18.76	-40.40
			(55.39)	(50.59)
Dem × % Corporate Contrib. to Dems			-5.71	-13.52
			(86.72)	(78.70)
Observations	297	266	274	250
R-squared	0.31	0.19	0.31	0.22
State FE	×		×	
Governor FE		×		×

Approval Rating Data

U.S. Official Job Approval Rating data (pre-2011)   Specific Governors

- By governor and poll, aggregated to month so can do within governor analysis
  (have data on month of subsidy announcement for each firm)

- Raw data shows subsidy events are more common in lower positive approval or higher negative
  approval rating periods
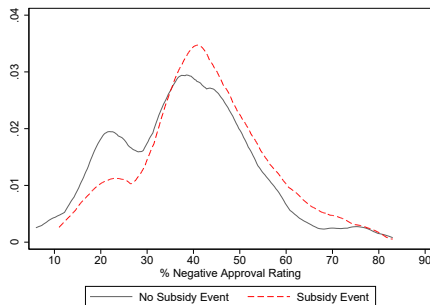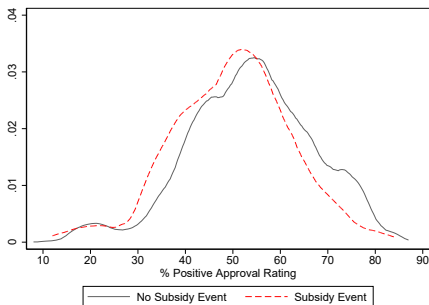
Analysis: Timing of Subsidy Deals

	Regression Results			% Δ Pr(Sub-Giving)		
	Dep. Var: Subsidy-Giving Dummy			↑ 1 SD	Spec 1.	Spec 2
Positive Approval Rating (%)	-0.0025	-0.0019	-0.0018	5.61	-10.8	-14.4
	(0.0012)	(0.0007)	(0.0007)			
Negative Approval Rating (%)	0.0019	0.0015	0.0013	5.82	8.5	11.8
	(0.0010)	(0.0005)	(0.0005)			
Net Approval Rating (%)	-0.0011	-0.0009	-0.0008	11.41	-9.7	-13.9
	(0.0006)	(0.0003)	(0.0003)			
Observations	1,226	2,120	2,120			
Dep. Var. Mean	0.130	0.074	0.074			
Governor FE	×	×	×			
Balanced Sample		×	×			
Month FE			×			

↑ negative approval by 5.8pp (1 SD), prob. of subsidy-giving increases by 11.8% (0.87pp)

Approval Ratings and Unemployment Rates

Back

Probability of Subsidy Giving `Back`

Strategy: Linear probability model

- Dependent variable equals 1 if there was any subsidy in state s and year t

- Regression includes for state, year FE, time-variant state characteristics

$\rightarrow$ 1% increase in unemployment rate associated with 15% increase in probability of subsidy giving

Unemployment Rate (%)	0.045	0.044	0.037
	(0.017)	(0.017)	(0.022)
Governor can run for re-election		0.044	0.073
		(0.036)	(0.038)
Observations	816	816	768
R-squared	0.33	0.33	0.34
Dep. Var. Mean	0.31	0.31	0.33
State, Year FE	$\times$	$\times$	$\times$
Additional Controls			$\times$

Subsidy Giving and Campaign Finance

The New York Times

Justices, 5-4, Reject Corporate Spending Limit

By ADAM LIPTAK
JAN. 21, 2010

WASHINGTON — Overruling two important precedents about the First Amendment rights of corporations, a bitterly divided Supreme Court on Thursday ruled that the government may not ban political spending by corporations in candidate elections.

- Forces 24 states to allow corps to make independent expenditures in state elections

- **Diff-in-diff**: Estimate the effect of the *opportunity* to receive more financial support from firms on state subsidy-giving behavior

  First Stage: Corporations spend more in elections post-Citizens

Subsidy Giving and Campaign Finance: Specification

Baseline: $y_{st} = \theta_0 + \theta_1 \text{Treat}_s \times \text{Post}_t + \theta_4 X_{st} + \eta_t + \gamma_s + \epsilon_{st}$

- y_{st}: a measure of incentive spending or subsidy-giving in state s at time t
- $\text{Treat}_s = 1$: States affected by ruling (previously banned corporate spending)
  - ▶ Control group: States that allowed *unlimited* spending pre-*Citizens*
- Post-ruling variable, Post_t, equals 1 if the year is greater than 2010
  - ▶ 2010 is omitted from the analysis

Subsidy Giving and Campaign Finance: Specification

Baseline: $y_{st} = \theta_0 + \theta_1 \text{Treat}_s \times \text{Post}_t + \theta_4 X_{st} + \eta_t + \gamma_s + \epsilon_{st}$

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- Post-ruling variable, Post_t, equals 1 if the year is greater than 2010
    - ▶ 2010 is omitted from the analysis

With interaction for career-concerned governors:

$$y_{st} = \theta_0 + \theta_1 \text{Treat}_s \times \text{Post}_t + \theta_2 \text{Can Run}_{st} + \theta_3 \text{Treat}_s \times \text{Post}_t \times \text{Can Run}_{st}$$
$$+ \theta_4 X_{st} + \eta_t + \gamma_s + \epsilon_{st}$$

- Can Run $_{st} = 1$: when state has governor eligible to run for re-election

Campaign Finance: Total Spending Results `Back`

	Per-Capita Spending ($)			
Treat × Post Citizens	-2.06	-0.63	-7.16	-10.16
	(5.28)	(5.75)	(7.80)	(8.42)
Governor Can Run for Re-election			-2.88	-5.00
			(4.29)	(4.73)
Treat × Post × Can Run			6.42	12.15
			(5.56)	(6.57)
R-squared	0.89	0.90	0.90	0.90
Observations	248	248	248	248
Additional Controls		×		×
State, Year FE	×	×	×	×

No effect of *Citizens* on per-capita incentive spending on average

- Effect specific to governors who can run for re-election

- If all governors in treated states were eligible to run for re-election in the post period, their per-capita spending would increase by $\sim$ \$3 (10% at the median)

Similar Pattern for Subsidy Giving Back

	# Subsidy Competitions			
Treat × Post Citizens	0.00	-0.11	-0.70	-0.84
	(0.40)	(0.45)	(0.52)	(0.62)
Governor Can Run for Re-election			-0.85	-0.81
			(0.28)	(0.32)
Treat × Post × Can Run			0.98	1.01
			(0.51)	(0.59)
R-squared	0.64	0.65	0.65	0.66

	# Subsidy Wins			
Treat × Post Citizens	-0.25	-0.19	-0.65	-0.62
	(0.26)	(0.29)	(0.30)	(0.37)
Governor Can Run for Re-election			-0.48	-0.53
			(0.21)	(0.22)
Treat × Post × Can Run			0.57	0.60
			(0.29)	(0.38)
R-squared	0.58	0.60	0.59	0.61
Observations	248	248	248	248
Additional Controls		×		×
State, Year FE	×	×	×	×

Location of Subsidy Giving: Economic and Demographic Variables

	Control: All Counties				Control: Top Profit Counties				Control: Top Industry Counties			
Unemployment Rate	0.001	0.001	-0.001	-0.000	0.028	0.027	0.017	0.018	-0.003	-0.003	0.004	0.003
	(0.001)	(0.001)	(0.001)	(0.001)	(0.015)	(0.015)	(0.018)	(0.018)	(0.010)	(0.010)	(0.013)	(0.013)
% Black	0.001	0.001	0.001	0.001	0.004	0.004	-0.001	-0.001	0.005	0.005	0.002	0.002
	(0.000)	(0.000)	(0.000)	(0.000)	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)
% Hispanic	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.004	0.004	0.004	0.004
	(0.000)	(0.000)	(0.000)	(0.000)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Share With College Degree	0.001	0.001	0.000	0.000	-0.012	-0.012	-0.011	-0.010	-0.010	-0.010	-0.002	-0.003
	(0.000)	(0.000)	(0.000)	(0.000)	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.006)	(0.006)
log(Industry Wage)	0.029	0.029	0.054	0.054	0.447	0.447	0.730	0.736	0.112	0.110	0.369	0.366
	(0.004)	(0.004)	(0.011)	(0.011)	(0.058)	(0.058)	(0.080)	(0.080)	(0.059)	(0.059)	(0.091)	(0.092)
log(Average Housing Price)	-0.005	-0.005	-0.005	-0.004	-0.287	-0.286	-0.582	-0.582	0.092	0.092	0.130	0.136
	(0.002)	(0.002)	(0.003)	(0.003)	(0.080)	(0.080)	(0.099)	(0.100)	(0.055)	(0.055)	(0.076)	(0.076)
log(Personal Income Per Capita)	0.027	0.027	0.004	0.004	0.119	0.114	0.072	0.065	0.338	0.337	0.155	0.178
	(0.008)	(0.008)	(0.009)	(0.009)	(0.105)	(0.107)	(0.129)	(0.129)	(0.108)	(0.109)	(0.155)	(0.158)
log(Population)	0.013	0.013	0.017	0.017	0.170	0.171	0.184	0.184	0.179	0.180	0.235	0.233
	(0.002)	(0.002)	(0.002)	(0.002)	(0.019)	(0.020)	(0.027)	(0.027)	(0.018)	(0.018)	(0.023)	(0.023)
Observations	17,494	17,494	10,327	10,327	848	848	492	492	848	848	492	492
R-squared	0.06	0.06	0.04	0.04	0.39	0.39	0.53	0.53	0.41	0.41	0.50	0.51
Manufacturing Sub-sample			×	×			×	×			×	×
Dep. Var Mean	.012				.250				.250			

Location of Subsidy Giving: Political Variables Back

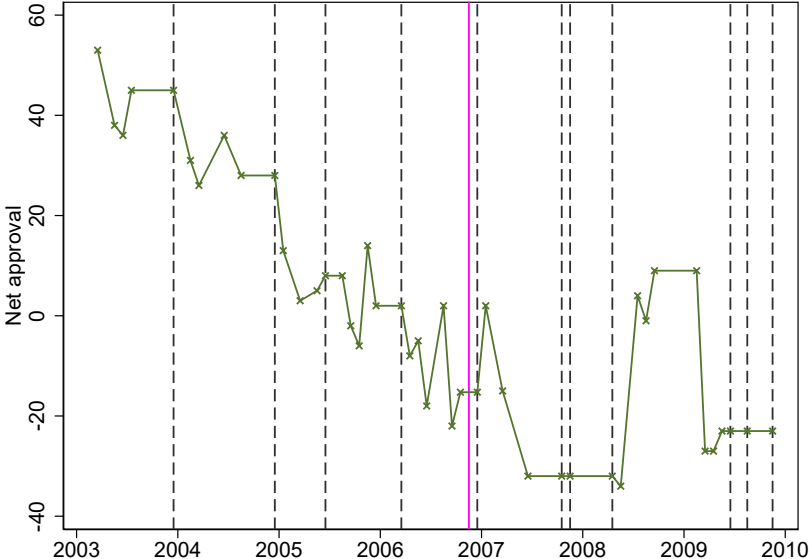|	Control: All Counties				Control: Top Profit Counties				Control: Top Industry Counties			
% Turnout in Last Election	0.000	-0.000	0.001	0.000	0.002	0.001	0.012	0.007	0.004	0.005	0.010	0.004
	(0.000)	(0.000)	(0.000)	(0.000)	(0.004)	(0.005)	(0.005)	(0.006)	(0.004)	(0.006)	(0.005)	(0.006)
× Can Run		0.000		0.001		0.001		0.009		-0.001		0.008
		(0.000)		(0.000)		(0.006)		(0.008)		(0.007)		(0.008)
Same Party Legislator	-0.001	-0.001	-0.001	-0.002	-0.013	-0.030	-0.049	-0.107	-0.017	-0.011	0.017	0.054
	(0.002)	(0.004)	(0.003)	(0.006)	(0.041)	(0.082)	(0.049)	(0.111)	(0.043)	(0.086)	(0.049)	(0.097)
× Can Run		0.000		0.002		0.023		0.079		-0.012		-0.057
		(0.005)		(0.007)		(0.093)		(0.125)		(0.096)		(0.108)
% Same Party Vote in Last Election	-0.000	-0.000	0.000	0.000	-0.000	-0.001	0.002	0.000	-0.003	-0.004	-0.005	-0.004
	(0.000)	(0.000)	(0.000)	(0.000)	(0.002)	(0.003)	(0.002)	(0.004)	(0.002)	(0.004)	(0.002)	(0.005)
× Can Run		0.000		-0.000		0.001		0.003		0.001		-0.002
		(0.000)		(0.000)		(0.004)		(0.004)		(0.005)		(0.005)
Observations	17,494	17,494	10,327	10,327	848	848	492	492	848	848	492	492
R-squared	0.06	0.06	0.04	0.04	0.39	0.39	0.53	0.53	0.41	0.41	0.50	0.51
Manufacturing Sub-sample			×	×			×	×			×	×
Dep. Var Mean	.012				.250				.250			

Distribution of Political Affiliation (Republican)
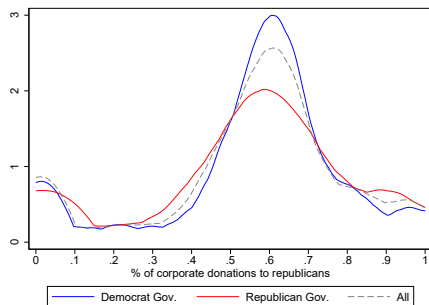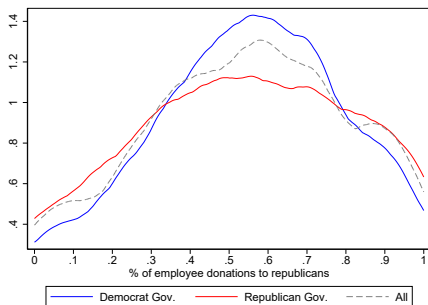
Mean Independent Expenditures: 2006, 2010, 2014
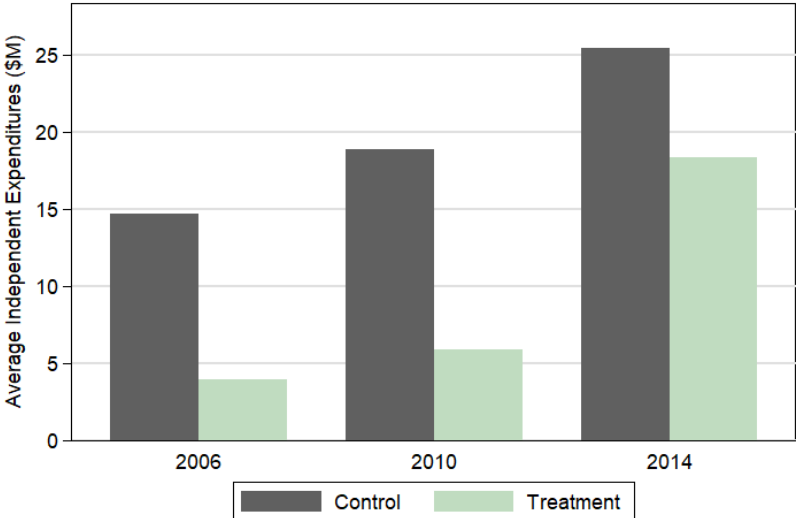
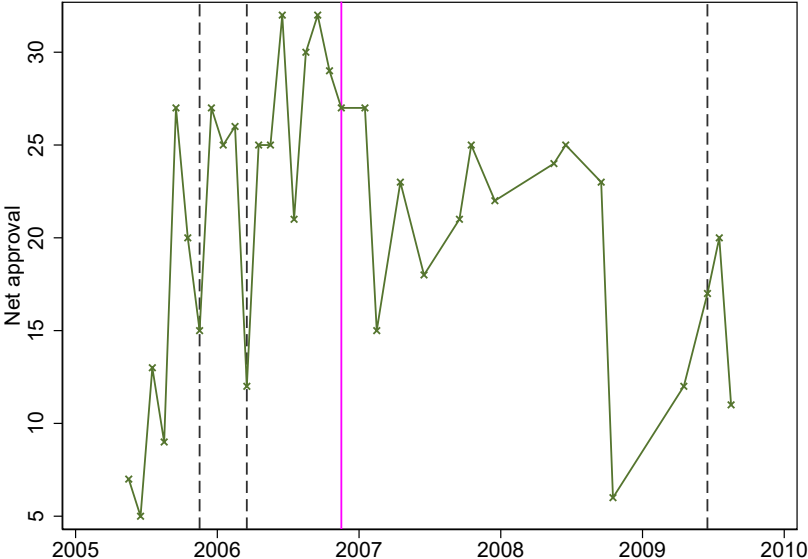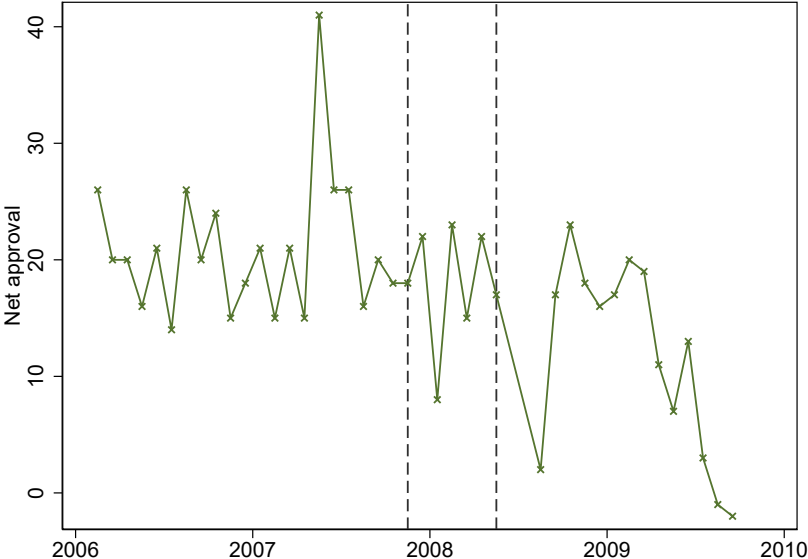Treatment States: AK, AZ, CO, IA, MA, MI, MN, NC, OH, OK, TN, TX ;
Control States: CA, ID, ME, MO, WA

Gov. Granholm, Michigan

Gov. Perdue, Georgia