Who Gets Protection from Protectionism? Evidence from the Buy American Act

Soohyun Cho
Bowdoin College

Kyuwon Lee
USC

Hye Young You
Princeton

Who Drives Protectionist Policies?

- For decades, tariff authority delegated to the president

Who Drives Protectionist Policies?

- For decades, tariff authority delegated to the president
  $\Rightarrow$ insulate from congressional protectionist pressures

Who Drives Protectionist Policies?

- For decades, tariff authority delegated to the president
  $\Rightarrow$ insulate from congressional protectionist pressures
- BUT today's protectionism ("industrial policy") largely initiated by the executive branch

Buy American Act (BAA) as Protectionist Policy

Buy American Act (BAA) as Protectionist Policy

BAA (April 2017): tighter restrictions on firms with foreign suppliers, particularly **Chinese** suppliers.

Buy American Act (BAA) as Protectionist Policy

BAA (April 2017): tighter restrictions on firms with foreign suppliers, particularly **Chinese** suppliers. But the implementation has been uneven.

Research Question

Q: Why are some firms insulated from protectionist enforcement, while others face stricter scrutiny?

Our Argument

BAA effects are more salient among firms without **legislators' protection**

Our Argument

BAA effects are more salient among firms without **legislators' protection**

- **Supply**-side of protection through geographic representation in Congress

Our Argument

BAA effects are more salient among firms without **legislators' protection**

- **Supply**-side of protection through geographic representation in Congress
    1. Legislators' assignment to important committees (e.g., appropriations, budget, ways and means)

Our Argument

BAA effects are more salient among firms without **legislators' protection**

- **Supply**-side of protection through geographic representation in Congress
  1. Legislators' assignment to important committees (e.g., appropriations, budget, ways and means)
  2. Legislators' local roots (birthplace) to their districts

Our Argument

BAA effects are more salient among firms without **legislators' protection**

- **Supply**-side of protection through geographic representation in Congress
  1. Legislators' assignment to important committees (e.g., appropriations, budget, ways and means)
  2. Legislators' local roots (birthplace) to their districts
  3. Legislators' co-partisanship with the president

Our Argument

BAA effects are more salient among firms without **legislators' protection**

- **Supply**-side of protection through geographic representation in Congress
  1. Legislators' assignment to important committees (e.g., appropriations, budget, ways and means)
  2. Legislators' local roots (birthplace) to their districts
  3. Legislators' co-partisanship with the president
- **Demand**-side of political favoritism: firms' lobbying, campaign contributions

Constructing Main Dataset

Main dataset: firm$\times$agency$\times$quarter pair during **2015 Q1 - 2019-Q4**

Constructing Main Dataset

Main dataset: firm$\times$agency$\times$quarter pair during **2015 Q1 - 2019-Q4**

1. Match firms in FactSet GVC data 2013-2016 (before BAA) with those in federal contract FY 2010-2023

Constructing Main Dataset

Main dataset: firm$\times$agency$\times$quarter pair during **2015 Q1 - 2019-Q4**

1. Match firms in FactSet GVC data 2013-2016 (before BAA) with those in federal contract FY 2010-2023
2. 2,053 unique for-profit firms
    - 9% (187 firms) with at least one Chinese supplier
    - 47% (1,017 firms) with at least one non-US, non-Chinese supplier

Constructing Main Dataset

Main dataset: firm$\times$agency$\times$quarter pair during **2015 Q1 - 2019-Q4**

1. Match firms in FactSet GVC data 2013-2016 (before BAA) with those in federal contract FY 2010-2023
2. 2,053 unique for-profit firms
    - 9% (187 firms) with at least one Chinese supplier
    - 47% (1,017 firms) with at least one non-US, non-Chinese supplier
3. 12,858 firm$\times$agency pairs with *at least* one contract during FY 2010-2023
    - unique 72 agencies

Empirical Strategy: DID

Using firm$\times$agency$\times$quarter-level data of 257,140 obs (=12,858 pairs $\times$ 20 quarters):

$$\log(Y_{it}) = \tau D_{it} + \alpha_i + \delta_t + \epsilon_{it} \tag{1}$$

Empirical Strategy: DID

Using firm$\times$agency$\times$quarter-level data of 257,140 obs (=12,858 pairs $\times$ 20 quarters):

$$\log(Y_{it}) = \tau D_{it} + \alpha_i + \delta_t + \epsilon_{it} \tag{1}$$

- i the firm$\times$agency pair, and t the quarter

Empirical Strategy: DID

Using firm$\times$agency$\times$quarter-level data of 257,140 obs (=12,858 pairs $\times$ 20 quarters):

$$\log(Y_{it}) = \tau D_{it} + \alpha_i + \delta_t + \epsilon_{it} \tag{1}$$

- i the firm$\times$agency pair, and t the quarter
- D_{it}: 1 for *selected* firm$\times$agency pairs from 2016 Q4 to 2019 Q4, 0 otherwise

Empirical Strategy: DID

Using firm×agency×quarter-level data of 257,140 obs (=12,858 pairs × 20 quarters):

$$\log(Y_{it}) = \tau D_{it} + \alpha_i + \delta_t + \epsilon_{it} \tag{1}$$

- i the firm×agency pair, and t the quarter
- D_{it}: 1 for *selected* firm×agency pairs from 2016 Q4 to 2019 Q4, 0 otherwise
- Construct D_{it} separately for
  1. firms with non-U.S., non-Chinese suppliers
  2. firms with Chinese suppliers

Empirical Strategy: DID

Using firm$\times$agency$\times$quarter-level data of 257,140 obs (=12,858 pairs $\times$ 20 quarters):

$$\log(Y_{it}) = \tau D_{it} + \alpha_i + \delta_t + \epsilon_{it} \tag{1}$$

- i the firm$\times$agency pair, and t the quarter
- D_{it}: 1 for *selected* firm$\times$agency pairs from 2016 Q4 to 2019 Q4, 0 otherwise
- Construct D_{it} separately for
  1. firms with non-U.S., non-Chinese suppliers
  2. firms with Chinese suppliers
- Y_{it}: total contract amounts

Empirical Strategy: DID

Using firm$\times$agency$\times$quarter-level data of 257,140 obs (=12,858 pairs $\times$ 20 quarters):

$$\log(Y_{it}) = \tau D_{it} + \alpha_i + \delta_t + \epsilon_{it} \tag{1}$$

- i the firm$\times$agency pair, and t the quarter
- D_{it}: 1 for *selected* firm$\times$agency pairs from 2016 Q4 to 2019 Q4, 0 otherwise
- Construct D_{it} separately for
  1. firms with non-U.S., non-Chinese suppliers
  2. firms with Chinese suppliers
- Y_{it}: total contract amounts
- τ: effect of BAA on *selected* firms

Constructing Control Groups and Estimation

- Appropriate control group firms:

Constructing Control Groups and Estimation

- Appropriate control group firms:

Constructing Control Groups and Estimation

- Appropriate control group firms:
    1. With *only* U.S. suppliers during 2013–2016

Constructing Control Groups and Estimation

- Appropriate control group firms:
  1. With *only* U.S. suppliers during 2013–2016
  2. Overlap with treated firms on top 3 contracted products/services

Constructing Control Groups and Estimation

- Appropriate control group firms:
  1. With *only* U.S. suppliers during 2013–2016
  2. Overlap with treated firms on top 3 contracted products/services
  3. For treated firms with specific legislators' characteristics, restrict control firms to those with same legislators' characteristics

Constructing Control Groups and Estimation

- Appropriate control group firms:
  1. With *only* U.S. suppliers during 2013–2016
  2. Overlap with treated firms on top 3 contracted products/services
  3. For treated firms with specific legislators' characteristics, restrict control firms to those with same legislators' characteristics

     ex) Firms with Chinese suppliers with Republican legislator districts vs with only US suppliers

Constructing Control Groups and Estimation

- Appropriate control group firms:
  1. With *only* U.S. suppliers during 2013–2016
  2. Overlap with treated firms on top 3 contracted products/services
  3. For treated firms with specific legislators' characteristics, restrict control firms to those with same legislators' characteristics

     ex) Firms with Chinese suppliers with Republican legislator districts vs with only US suppliers

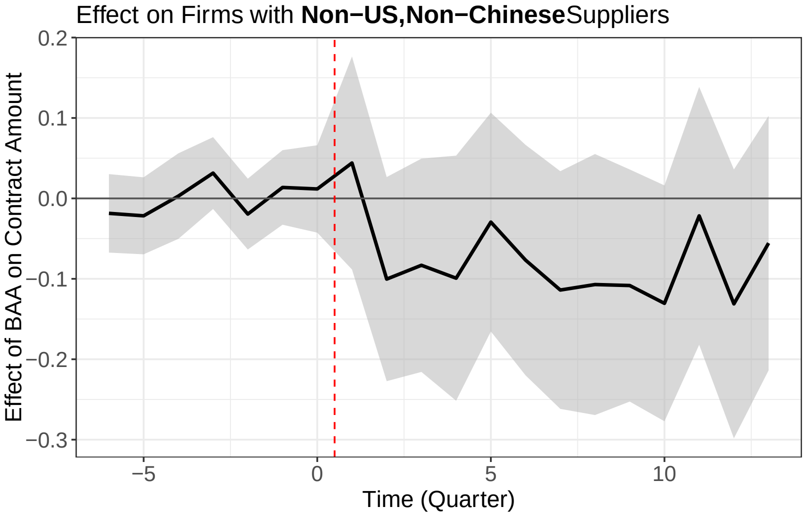
Constructing Control Groups and Estimation

- Appropriate control group firms:
  1. With *only* U.S. suppliers during 2013–2016
  2. Overlap with treated firms on top 3 contracted products/services
  3. For treated firms with specific legislators' characteristics, restrict control firms to those with same legislators' characteristics

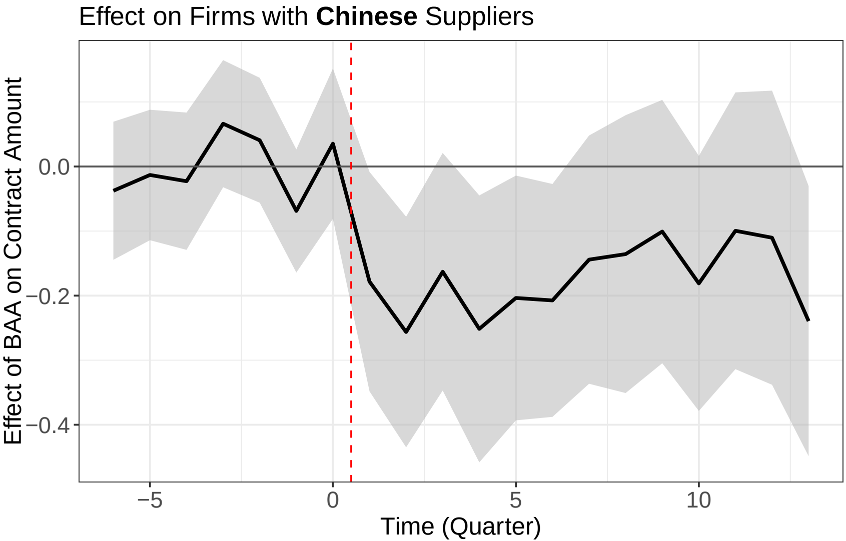
     ex) Firms with Chinese suppliers with Republican legislator districts vs with only US suppliers

- Based on control firms, use `FEct` for estimation (Xu, Lui, and Wang 2024) $\Rightarrow$ identical to TWFE

Little Impact on Firms with non-US, non-Chinese Suppliers



But Negative Impact on Firms with Chinese Suppliers



Negative Impacts on Firms w/o Congressional Protection

	Dependent Variable: log(Contract Amount)					
	House Rep in Important Committees		House Rep Partisanship		House Rep with Local Roots	
	Yes	No	Republican	Democratic	Yes	No
	(1)	(2)	(3)	(4)	(5)	(6)
Effect of BAA	0.411**	-0.553***	-0.046	-0.317**	0.156	-0.293**
	(0.126)	(0.106)	(0.114)	(0.116)	(0.215)	(0.092)

Note: Bootstrapped clustered SEs. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Addressing Alternative Explanations

Our findings are not driven by:

Addressing Alternative Explanations

Our findings are not driven by:

1. firms' political connections

Addressing Alternative Explanations

Our findings are not driven by:

1. firms' political connections
   - Use 2016 cycle PACs' campaign contributions to categorize 2,053 firms as (1) politically active and (2) politically inactive 2016 Contribution

Addressing Alternative Explanations

Our findings are not driven by:

1. firms' political connections
   - Use 2016 cycle PACs' campaign contributions to categorize 2,053 firms as (1) politically active and (2) politically inactive 2016 Contribution

2. Firms supplying different products/services

Addressing Alternative Explanations

Our findings are not driven by:

1. firms' political connections
   - Use 2016 cycle PACs' campaign contributions to categorize 2,053 firms as (1) politically active and (2) politically inactive 2016 Contribution
2. Firms supplying different products/services
   - Construct separate outcomes for each product/service Product Type

Addressing Alternative Explanations

Our findings are not driven by:

1. firms' political connections
   - Use 2016 cycle PACs' campaign contributions to categorize 2,053 firms as (1) politically active and (2) politically inactive 2016 Contribution
2. Firms supplying different products/services
   - Construct separate outcomes for each product/service Product Type

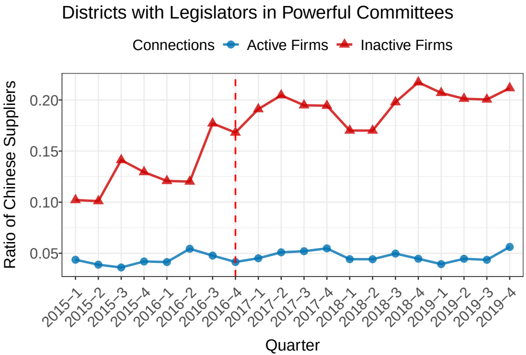
Addressing Alternative Explanations

Our findings are not driven by:

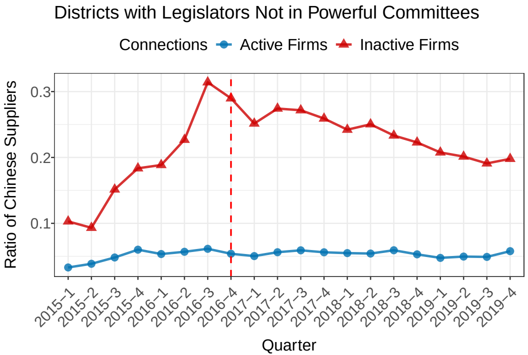
1. firms' political connections
   - Use 2016 cycle PACs' campaign contributions to categorize 2,053 firms as (1) politically active and (2) politically inactive 2016 Contribution
2. Firms supplying different products/services
   - Construct separate outcomes for each product/service Product Type
3. Agency politicization

BAA Effects on Reliance on Chinese Suppliers

(a) Legislators in Powerful Committees

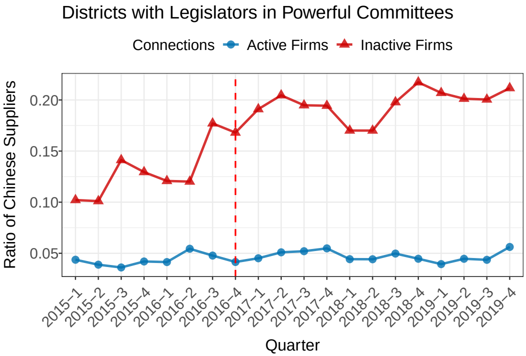


(b) Legislators Not in Powerful Committees

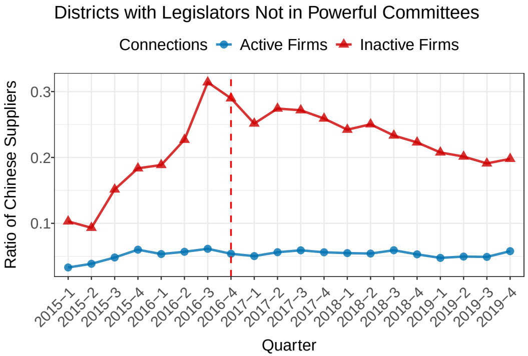


BAA Effects on Reliance on Chinese Suppliers

(a) Legislators in Powerful Committees



(b) Legislators Not in Powerful Committees



After BAA, only politically inactive firms in Figure (b) increased their reliance on U.S. suppliers

Implications

- The role of legislators amid presidential dominance in trade policies

Implications

- The role of legislators amid presidential dominance in trade policies
- Existing studies focus on the **choice** of protectionist policies, but **actual implementation** also matters

Thank You!

Appendix

BAA Background

TAA Application

Treatment

Why 2016-Q4?

Firm Characteristics

HQ Country | Industry | Entity Type

Data

GVC Data Structure | Descriptive Statistics | Top3 Contract Amount

New Contracts | Contract Termination | Contributions by Party

Supplementary Results

2016 Contribution | Product Type | Party Alignment

TAA Application on Foreign Countries

Trade Agreement	Parties	Dollar Threshold Above which Buy American Act Requirements Are Waived
World Trade Organization Government Procurement Agreement	Armenia, Aruba, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Republic of Korea, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Montenegro, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan (known in the World Trade Organization as “the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu (Chinese Taipei)”), Ukraine, United Kingdom);	180,000
Free Trade Agreements (FTA): Australia FTA	Australia	80,317
Free Trade Agreements (FTA): Bahrain FTA	Bahrain	180,000
Free Trade Agreements (FTA): Central America-Dominican Republic Free Trade Agreement	Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua	80,317
Free Trade Agreements (FTA): Chile FTA	Chile	80,317
Free Trade Agreements (FTA): Columbia FTA	Columbia	80,317
Free Trade Agreements (FTA): Korea FTA	Republic of Korea	100,000
Free Trade Agreements (FTA): Morocco FTA	Morocco	180,000
Free Trade Agreements (FTA): North American Free Trade Agreement	Canada	25,000
	Mexico	80,317
Free Trade Agreements (FTA): Oman FTA	Oman	180,000
Free Trade Agreements (FTA): Panama FTA	Panama	180,000
Free Trade Agreements (FTA): Peru FTA	Peru	180,000
Free Trade Agreements (FTA): Singapore FTA	Singapore	80,317
Israeli Trade Act	Israel	50,000

Source: Federal Acquisition Regulation | GAO-19-17

Appendix

Why 2016-Q4?

Appendix

Donald J. Trump
@realDonaldTrump · Follow

Thank you Florida. My Administration will follow two simple rules: BUY AMERICAN and HIRE AMERICAN! #ICYMI- Watch: facebook.com/DonaldTrump/vi...

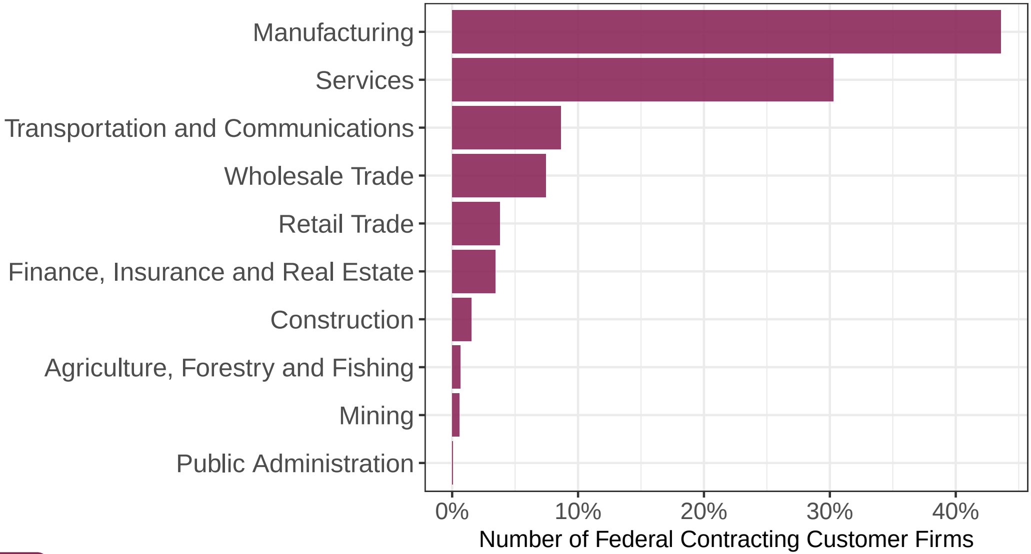
10:52 PM · Dec 16, 2016 from Orlando, FL

GVC Data Structure

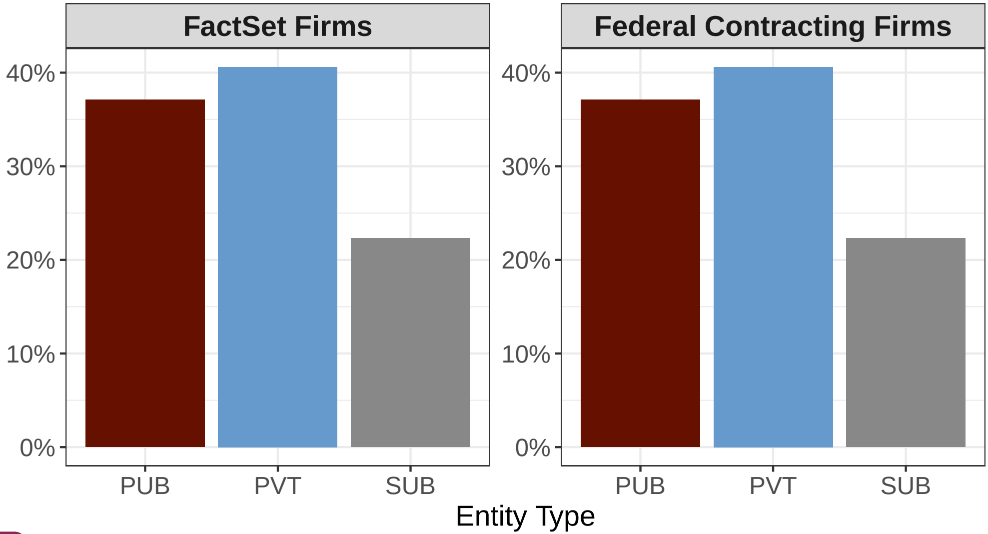
		Customer Firms			Supplier Firms		
ID	Quarter	Name	Country	Industry	Name	Country	Industry
1	2016 Q1	General Motors Co.	US	Transportation	ZYF Lopsking Material Tech	CN	Primary Metal
1	⋮		⋮		⋮		
1	2017 Q1	General Motors Co.	US	Transportation	ZYF Lopsking Material Tech	CN	Primary Metal
2	2017 Q2	General Motors Co.	US	Transportation	LG Corp.	KR	Electronic
3	2017 Q3	General Motors Co.	US	Transportation	Honeywell International	US	Transportation
4	2016 Q4	The Boeing Co.	US	Transportation	Rockwell Collins, Inc.	US	Manufacturing
5	2016 Q4	The Boeing Co.	US	Transportation	Shang Gong Group	CN	Machinery
6	2016 Q4	The Boeing Co.	US	Transportation	Fixstars Corp.	JP	Business Services

Appendix

Top 10 Industries of Customer Firms

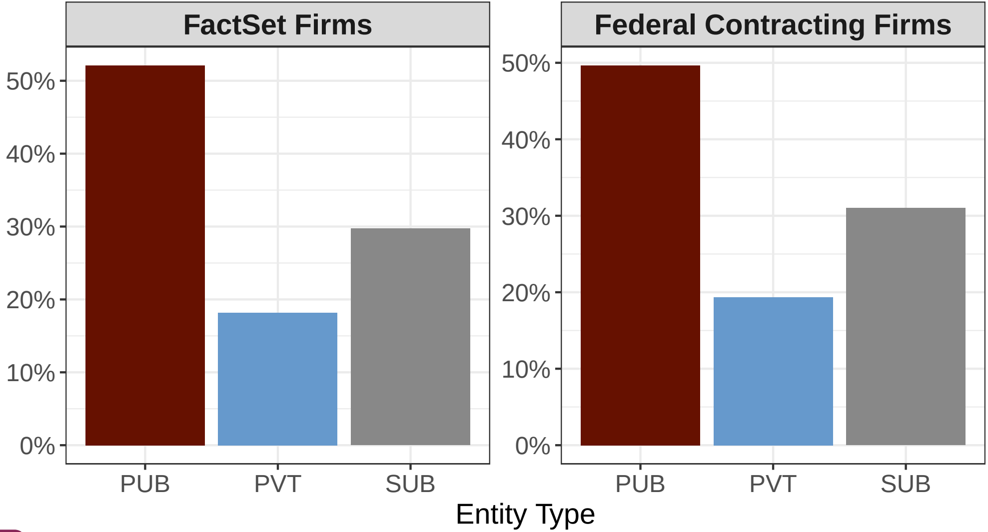


Customer Firms by Entity Type



Appendix

Supplier Firms by Entity Type



Appendix

Descriptive Statistics I

	Firms with US Suppliers	Firms with Non-US Suppliers	Firms with Chinese Suppliers: Politically Active	Firms with Chinese Suppliers: Politically Inactive
Panel A: Procuring Firms				
log(Total Contracts 15-16)	9.80 (11.37)	10.71 (12.42)	15.51 (16.92)	11.29 (12.89)
Being a Small Firm	0.24 (0.00)	0.19 (0.00)	0.01 (0.00)	0.10 (0.00)
N	891	903	77	101
Panel B: Political Leverage				
H. Rep Important Committees	0.30 (0.00)	0.28 (0.00)	0.30 (0.00)	0.37 (0.00)
Republican Legislators	0.42 (0.00)	0.36 (0.00)	0.44 (0.00)	0.37 (0.00))
Local Roots	0.21 (0.00)	0.24 (0.00)	0.18 (0.00)	0.16 (0.00)
log(Rep Contributions 16)	0.55 (0.00)	1.63 (0.00)	11.88 (12.01)	0.00 (0.00)
log(Dem Contributions 16)	0.46 (0.00)	1.42 (0.00)	10.73 (11.36)	0.00 (0.00)
N	891	903	77	101

Descriptive Statistics II

	Firms with US Suppliers	Firms with Non-US Suppliers	Firms with Chinese Suppliers: Politically Active	Firms with Chinese Suppliers: Politically Inactive
Panel C: Orbis				
log(Total Assets 15-16)	19.78 (19.80)	20.71 (21.02)	24.01 (24.14)	21.88 (22.05)
N	209	466	64	63
Panel D: Compustat				
Total Factor Productivity 15-16	3.32 (3.57)	4.61 (5.27)	11.86 (12.33)	7.84 (8.56)
N	141	382	62	57

Appendix

Top 3 Firms by Contract Amount Appendix

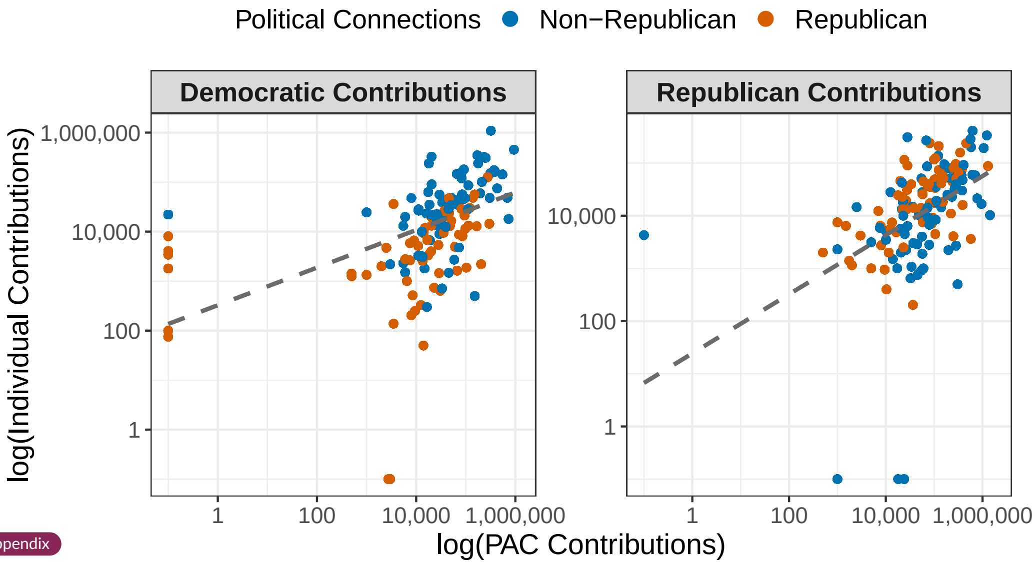
Panel A: US vs. Non-US Suppliers

Rank	US Suppliers	Non-US Suppliers
Top 1	Booz Allen Hamilton Holding Corp. ($7.26B)	Lockheed Martin Corp. ($77.87B)
Top 2	Los Alamos National Security LLC ($4.44B)	Northrop Grumman Corp. ($22.04B)
Top 3	United Launch Alliance LLC ($3.52B)	McKesson Corp. ($17.36B)

Panel B: Firms with Chinese Suppliers

Rank	Politically Active	Politically Inactive
Top 1	The Boeing Co. ($41.07B)	HP, Inc. ($3.29B)
Top 2	Raytheon Co. ($25.11B)	Arrow Electronics, Inc. ($0.53B)
Top 3	Honeywell International, Inc. ($4.09B)	DaVita, Inc. ($0.41B)

PAC and Individual Contributions



Appendix

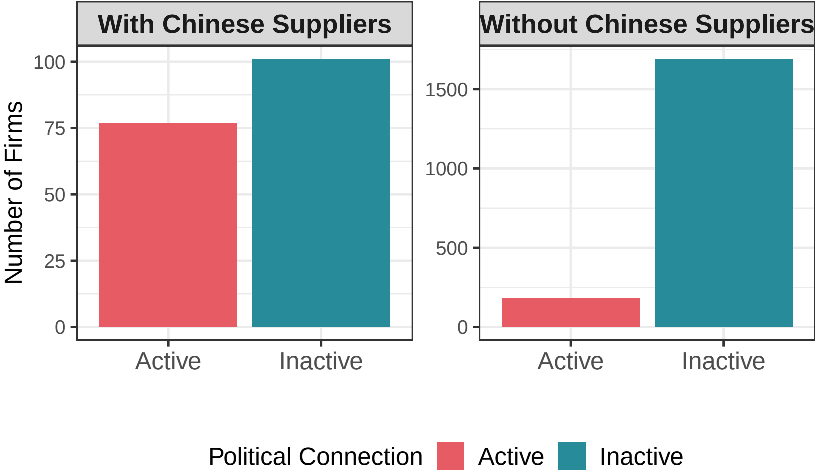
No Impact on Republican-Connected Firms with Chinese Suppliers Appendix

	Dependent Variable: log(Contract Amount)		
	Republican-Connected Firms with Chinese Suppliers	Non-Republican Firms with Chinese Suppliers	
		Politically Inactive	Democratic-Connected
	(1)	(2)	(3)
Effect of BAA	-0.129	-0.348***	-0.102
	(0.300)	(0.100)	(0.587)
Number of Firms	70	109	8

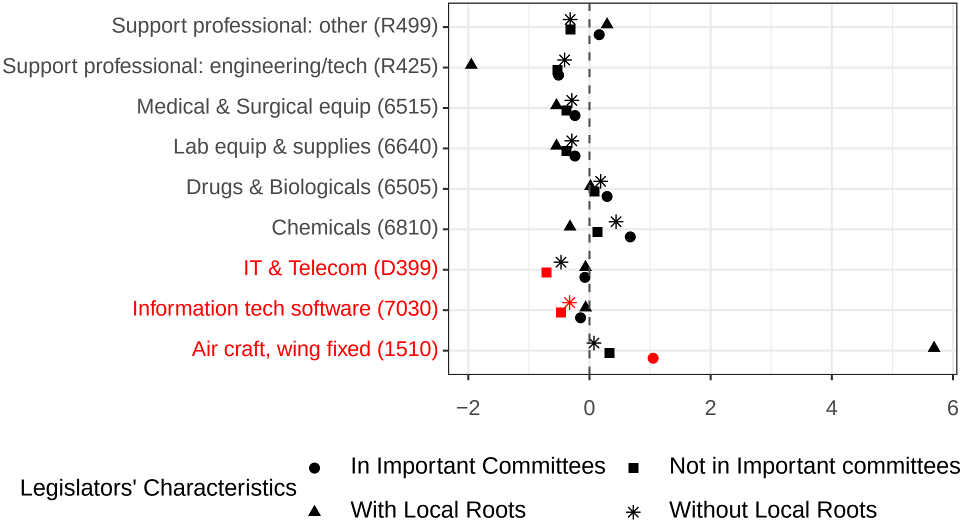
Note: Bootstrapped standard errors. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Data on Firms' Campaign Contributions

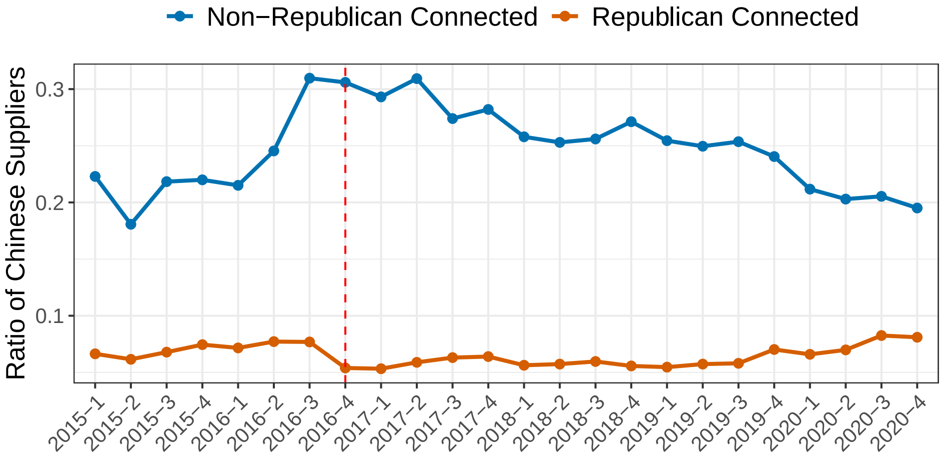
Use 2016 cycle PACs' campaign contributions to categorize 1,958 firms as (1) politically active and (2) politically inactive



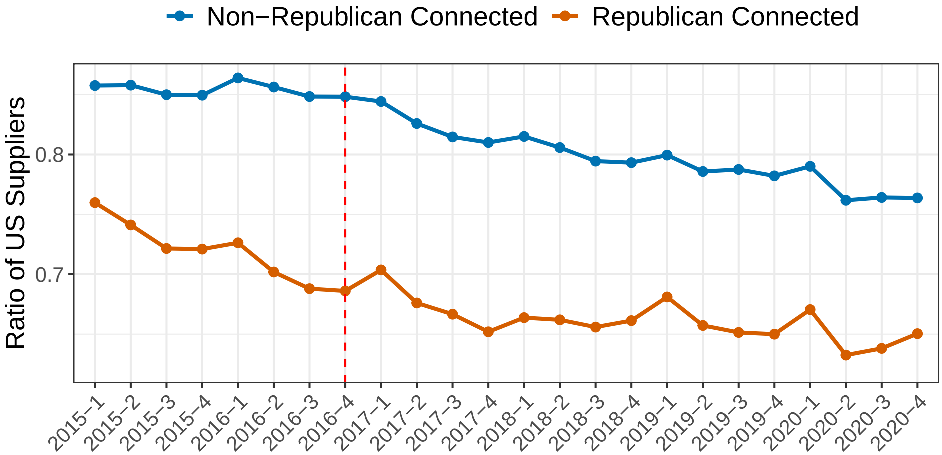
BAA Effects by Product Type



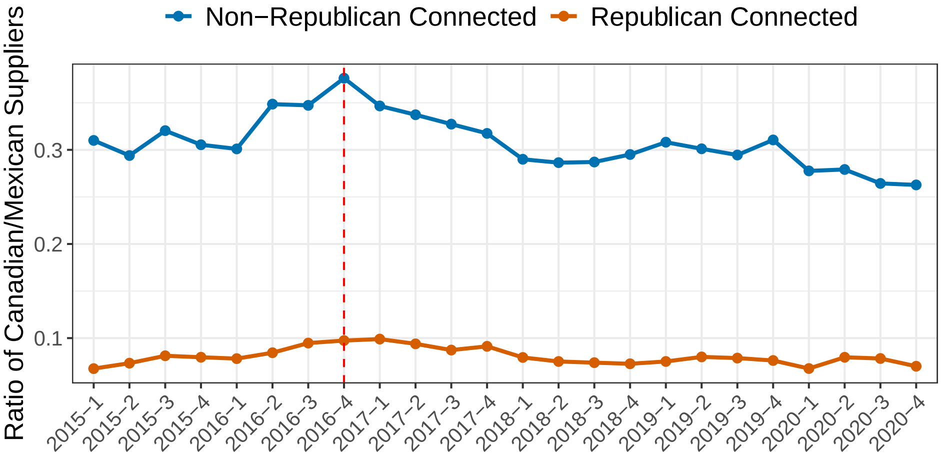
Firms’ Reliance on Chinese Suppliers Overtime



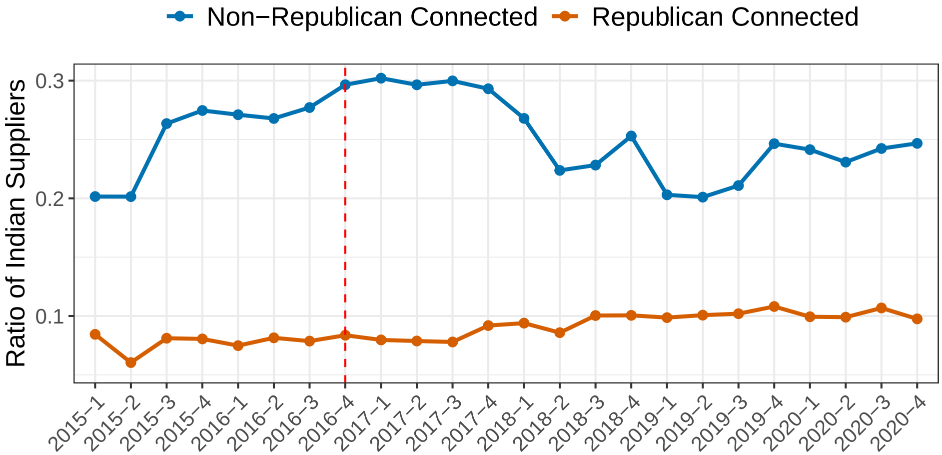
BAA Did Not Increase Firms' Reliance on US Suppliers



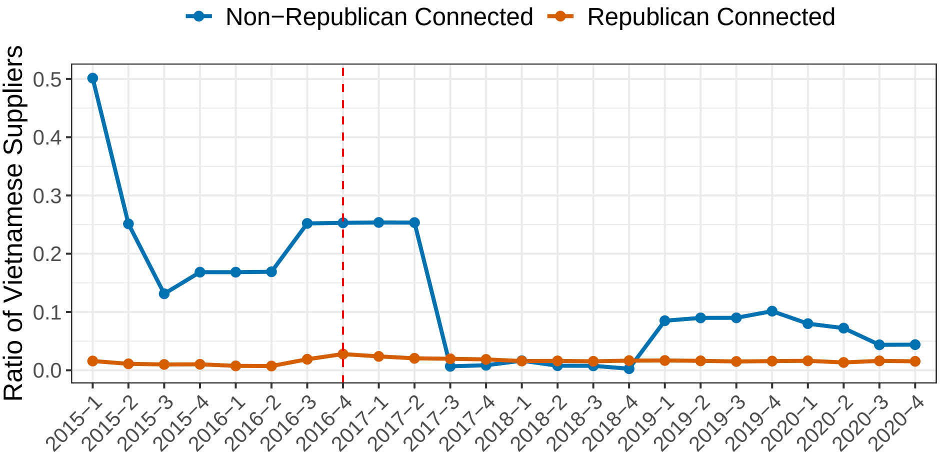
BAA and Firms' Reliance on Canadian/Mexican Suppliers



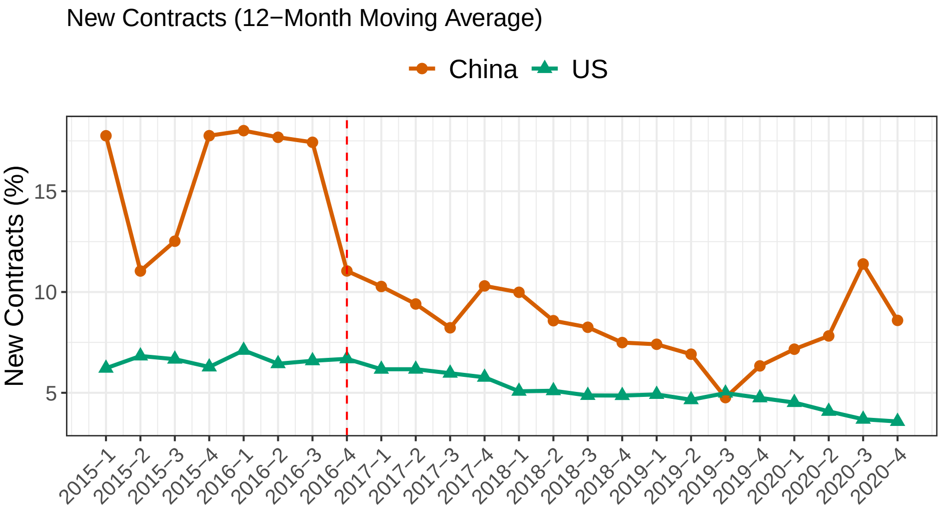
BAA and Firms' Reliance on Indian Suppliers



BAA and Firms' Reliance on Vietnamese Suppliers

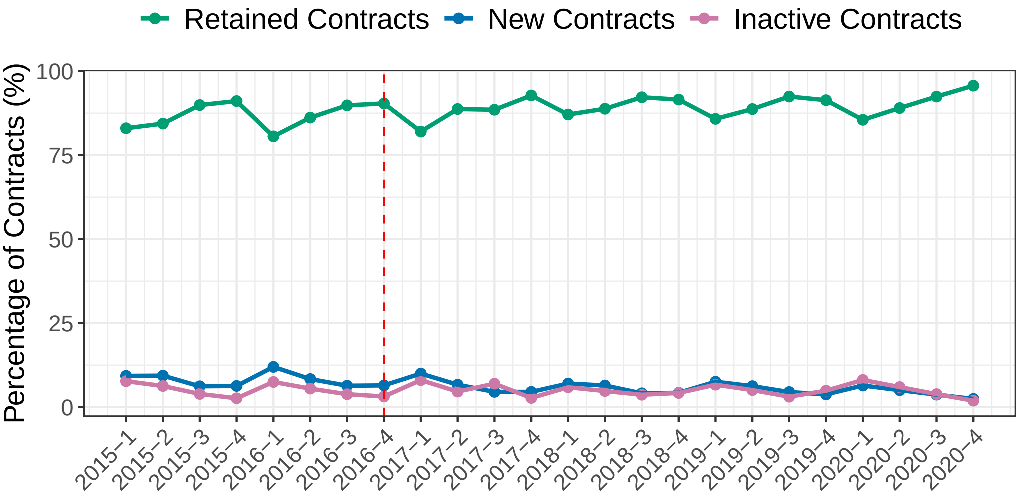


New Contracts After BAA



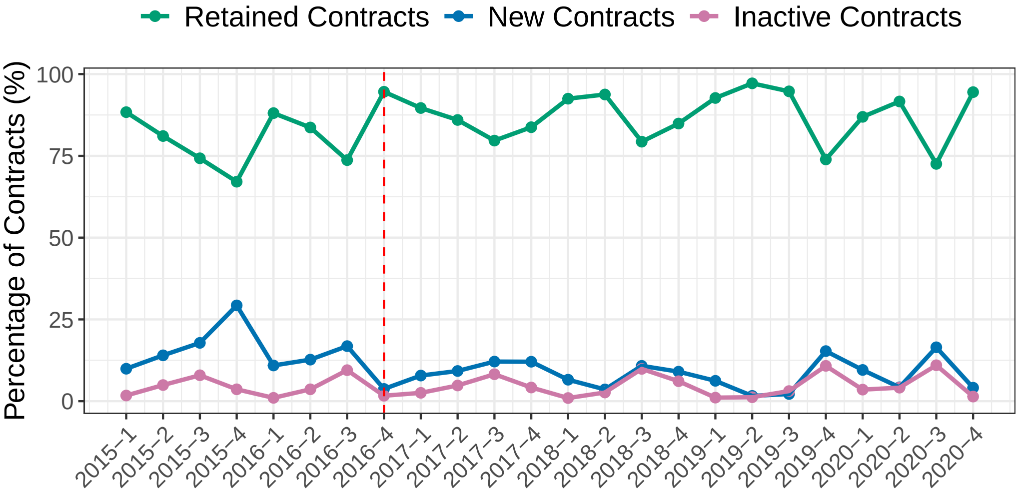
Appendix

Supply Chain Contract Changes



Appendix

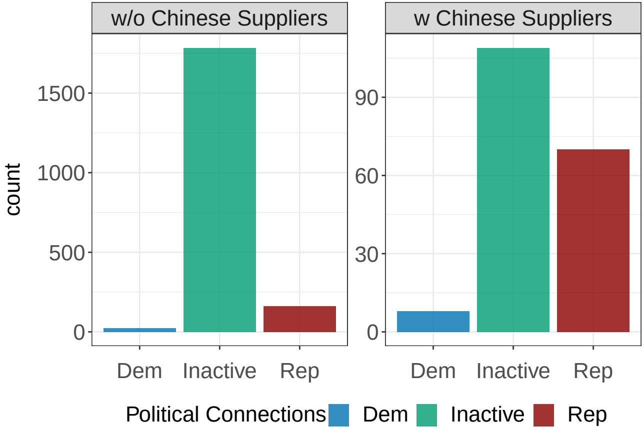
China Contract Changes



Appendix

Data on Firms' Campaign Contributions

Use 2016 cycle PACs' campaign contributions to categorize 1,958firms as (1) politically inactive, (2) Republican- connected, (3) Democratic-connected



Appendix