

Selling Violent Extremism

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Domestic Violent Extremism is a Group Activity and Growing

- ▶ >50% radicalization and political violence involves known extremist groups or movements (“Profiles of Individual Radicalization in the United States” 2023; Loadenthal et al. 2023)
- ▶ Department of Homeland Security now lists violent extremism as a major concern (Homeland Security 2020, 2023)

More members in groups → more destabilizing activities

[To background definitions](#)

Research Question

How do domestic violent extremists recruit?

Overview

- 1) **Focus of Paper:** Oath Keepers recruitment tactics
 - ▶ Largest paramilitary organization in the United States
 - ▶ Key player in January 6th insurrection

- 2) **Data:** Leaked membership records and internal forum
 - ▶ Includes the initial join date of over 32,000 individuals (not tenure in organization)
 - ▶ Comprehensive list of activities from internal forum
 - ▶ Most complete data ever on **any** domestic violent extremist group

- 3) **Analysis:** Synthetic control-like estimation of nine natural experiments
 - ▶ First paper to financially quantify the effectiveness of recruitment tactics among **any** domestic violent extremist groups

The Oath Keepers have Firm-Like Tendencies

1. Induce movements along the demand function for initial membership **five** times
 - a. Offer discounts on membership
 - ▶ 25% off annual dues
2. Induce shifts in the demand function for initial membership **four** times
 - b. Cause-related marketing
 - ▶ Organize and participate in politically motivated events
 - c. Sports sponsorship
 - ▶ NASCAR driver

To demand graphs

Main Findings: Effect of Tactics

1) Demand is **elastic**

- ▶ Four 25% discounts caused combined increase in over 400 new members (>\$12,000 in revenue / $\approx 2.5\%$ of all members from 2013-2018)
- ▶ Demand becomes less elastic over time

2) Cause-related marketing have large effects

- ▶ Cause-related marketing shifts demand out: Two armed standoffs caused > 1,000 new signups (>\$40,000 in revenue / $\approx 5\%$ of all members from 2013-2018)
- ▶ Effect is **temporary**
- ▶ Results robust to changes in data specification and estimation methods

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Main Findings: Do Effects Vary Across County Demographics?

- 1) Income Inequality $\uparrow \Rightarrow$ Price sensitivity \downarrow
- 2) Percent politically conservative $\uparrow \Rightarrow$ Price sensitivity + shifts from armed standoffs \uparrow
- 3) Percent white $\uparrow \Rightarrow$ Shift from first armed standoffs \uparrow
- 4) Percent rural $\uparrow \Rightarrow$ Shift from first armed standoffs \uparrow

Contributions

- ▶ First to use the Oath Keepers data set in economic analysis
 - ▶ General study of domestic right-wing extremism (Mulholland 2010; Piazza 2016; Jefferson and Pryor 1999; Crost 2021; Savage and Wimmer 2023)
- ▶ Previous modeling may not apply
 - ▶ Violent extremist usually modeled as clubs (Berman and Laitin 2008; Berman 2009; Morales, Raynold, and Li 2018; J.-P. Carvalho and Sacks 2022)
- ▶ First to explicitly model shifts in/along demand
 - ▶ Firm-like behavior of historically violent groups (Fryer and Levitt 2012; Shapiro 2013)
- ▶ **Policy Implications:** Shows how violent extremist organizations can increase their membership base and revenue

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Roadmap

- 1) Background
 - ▶ Who are the Oath Keepers?
- 2) Data
 - ▶ Data sources/ Trends in the data/ Control group
- 3) Econometric Specification
 - ▶ Potential outcome framework/ Estimation strategy
- 4) Main Results
 - ▶ National-level results
- 5) Heterogeneity Analysis
 - ▶ County-level variation
- 6) Conclusion

Background: The Oath Keepers (OK)

- ▶ Far-right paramilitary organization founded on April 29, 2009 (Southern Poverty Law Center 2022)
 - ▶ Claimed 35,000 dues-paying members in 2014
 - ▶ Involved in armed standoffs with government officials (Jackson 2020)
 - ▶ Advertise to first responders/veterans — open to everyone
- ▶ Involved in January 6th events at the capital
 - ▶ Founder and other members were convicted of sedition (Department of Justice 2023)
 - ▶ Second longest sentence handed down yet in the January 6th insurrection

Data

Leaked Database and Forum

- ▶ Source: Distributed Denial of Secrets
 - ▶ journalist 501(c)(3) nonprofit focused on publishing leaked data (“Distributed Denial of Secrets”)
- ▶ Membership data
 - ▶ Member ID, type, physical/email address, initial join date
 - ▶ Does not include recurring activity
 - ▶ Window of analysis: 2013 - November 2018
 - ▶ Number of members with a join date in window: ~20,000 Monthly Inflows
- ▶ Internal forum leak
 - ▶ Message board used to communicate with the national organization
 - ▶ Provides start and stop dates for some activities

Table 1: Oath Keepers Tactics

Event	Start Date	End Date	Length (Days)
Membership Discounts			
Veteran's Day Sale	2014-11-01	2014-11-11	10
Constitution Day Sale	2017-07-20	2017-09-17	59
Christmas/New Years Sale	2017-12-17	2018-02-09	54
Flash Sale	2018-02-27	2018-03-01	2
Memorial Day Sale	2018-05-15	2018-05-23	8
Cause-Related Marketing			
Bundy Ranch	2014-04-04	2014-04-27	23
Big Sky	2015-08-06	2015-09-03	28
DefendJ20	2017-01-17	2017-01-20	3
Sports Sponsorship			
NASCAR Sponsorship	2013-05-04	2013-07-13	70

Membership Inflow During One Discount

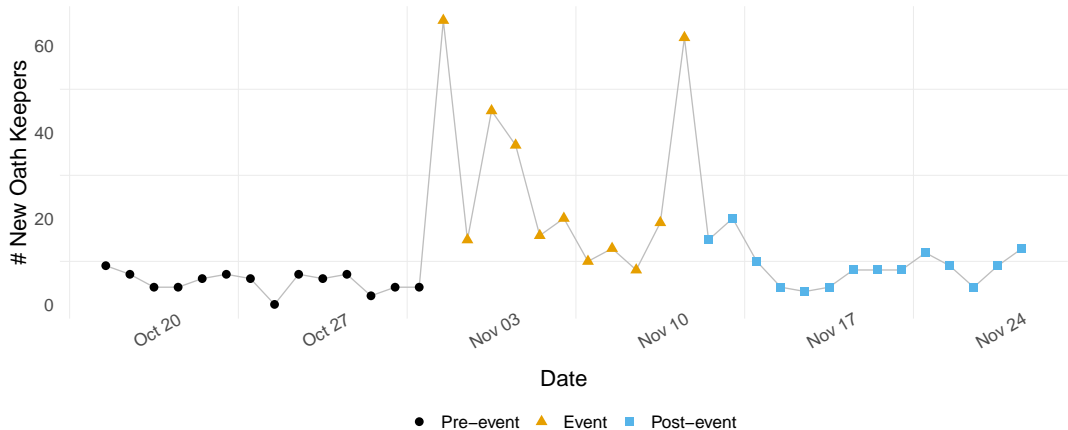


Figure 1: Member Inflows During Veteran's Day Discount 2014

Discounts Cause a Temporary Increase to Inflows

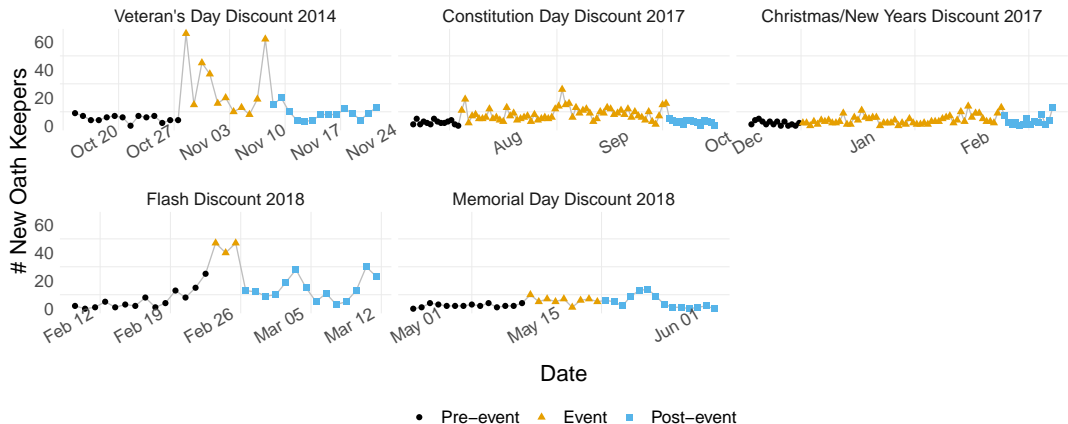


Figure 2: Member Inflows During Movements Along the Demand Function

Cause-Related Marketing Causes a Temporary Shift in Demand

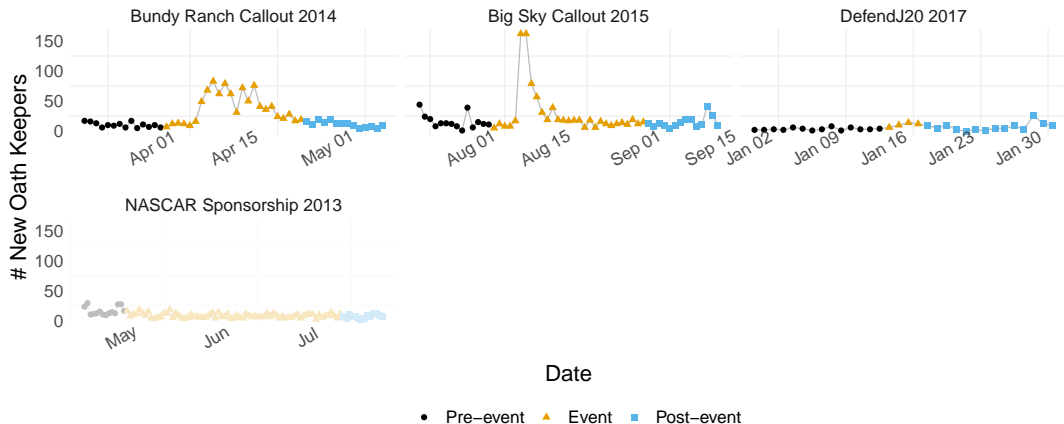


Figure 3: Member Inflows During Shifts in Demand

Sports Sponsorship Causes a Persistent Shift in Demand

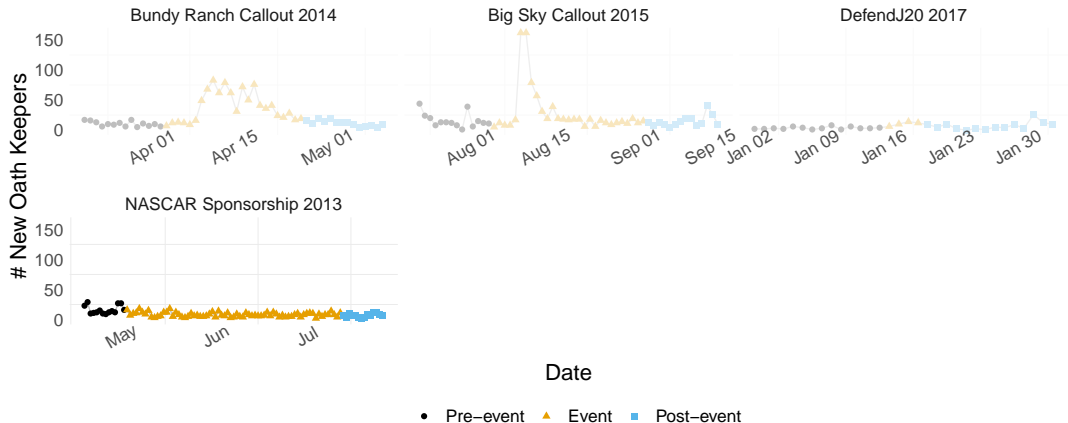


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Potential omitted variable bias:

Changes in consumer tastes → shift in demand **unrelated to tactics studied**

Control for Changes in Consumer Preferences

- ▶ No membership data for similar groups
- ▶ Alternative: Google Trends
 - ▶ Measures trends of Google search terms normalized by largest value in window
 - ▶ Largest value is 100. All other values between 0 and 100
- ▶ Assumes trends in the interest for other groups is highly correlated with Oath Keepers signups

Selection of Control Groups [To control units table](#)

► Organizations limited to:

- 1) Similar number of chapters as Oath Keepers across the country
- 2) Identified as related to the Oath Keepers [To sources](#)

► Control Groups: **John Birch Society, Eagle Forum, We are Change, Patriot Prayer, 3 Percenters, Proud Boys**

Econometric Specification

Construction of Counterfactual

- ▶ Two states of the world: treated ($y_t(1)$) and untreated ($y_t(0)$)
 - ▶ **Goal:** Estimate $\tau_t = y_t(1) - y_t(0)$
- ▶ Observe $y_t = y_t(0)I(t < T) + y_t(1)I(t \geq T)$
 - ▶ y_t : Inflow of new Oath Keepers on day t
 - ▶ What's the effect of the treatment?
- ▶ Idea: Separately construct **synthetic** $y_t(0)$ using Google trends data for each tactic: $g_{i,t}$ for $i \in \{1, 2, \dots, n\}$

$$y_t(0) = f(\underbrace{g_{1,t}, \dots, g_{n,t}}_{\text{Google trends data}})$$

Counterfactual Specification (Brodersen et al. 2015)

- Bayesian state space approach designed to construct counterfactual using Google Trends data:

$$\underbrace{y_t(0) = f(g_{1,t}, \dots, g_{n,t})}_{\text{Inflow of Oath Keepers on day } t} = \beta_{0,t} + \sum_{j=1}^n \beta_j g_{j,t} + \epsilon_t \quad \epsilon_t \sim \mathcal{N}(0, \sigma_\epsilon^2) \quad (1)$$

$$\beta_{0,t} = \beta_{0,t-1} + \eta_t \quad \eta_t \sim \mathcal{N}(0, \sigma_\eta^2) \quad (2)$$

- Minimizes risk of **overfitting** through sparse priors (spike-and-slab)
 - Provides a probability of inclusion and distribution of β_j To priors

Identifying Assumptions

- ▶ Plausibility of assumed model?
 - ▶ Limit window to 2 weeks before/after tactic (robust to 3 and 4 week pre-treatment)
 - ▶ Fail to find other tactics in the pre/post periods
- ▶ Relevance of control units?
 - ▶ [To control units slide](#)
- ▶ “Good fit” of data generating process
 - ▶ Placebo in-time test
 - ▶ Artificially move treatment 7 days
 - ▶ All “pass” except Flash Discount 2018 [To table](#) [To graphs](#)

Results

To graphs

Table 2: Effect of Tactics with 95% Credibility Intervals

	Average Change in Inflow per Day
<i>Membership Discounts</i>	
Veteran's Day Discount 2014	22.88 [21.72, 24.01]
Constitution Day Discount 2017	-0.14 [-3.53, 3.16]
Christmas and New Years Discount 2017	2.33 [1.83, 2.86]
Memorial Day Discount 2018	3.62 [3.06, 4.27]
Flash Discount 2018	38.47 [32.86, 44.02]
<i>Cause-Related Marketing</i>	
Bundy Ranch Callout 2014	28.21 [26.1, 30.38]
Big Sky Callout 2015	12.9 [8.11, 17.43]
DefendJ20 2017	7.12 [5.71, 8.56]
<i>Sports Sponsorship</i>	
NASCAR Sponsorship 2013	-8.11 [-11.69, -4.54]
Average Inflow from 2013-2018	9.6

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Demand Becomes Less Price-Sensitive Over Time

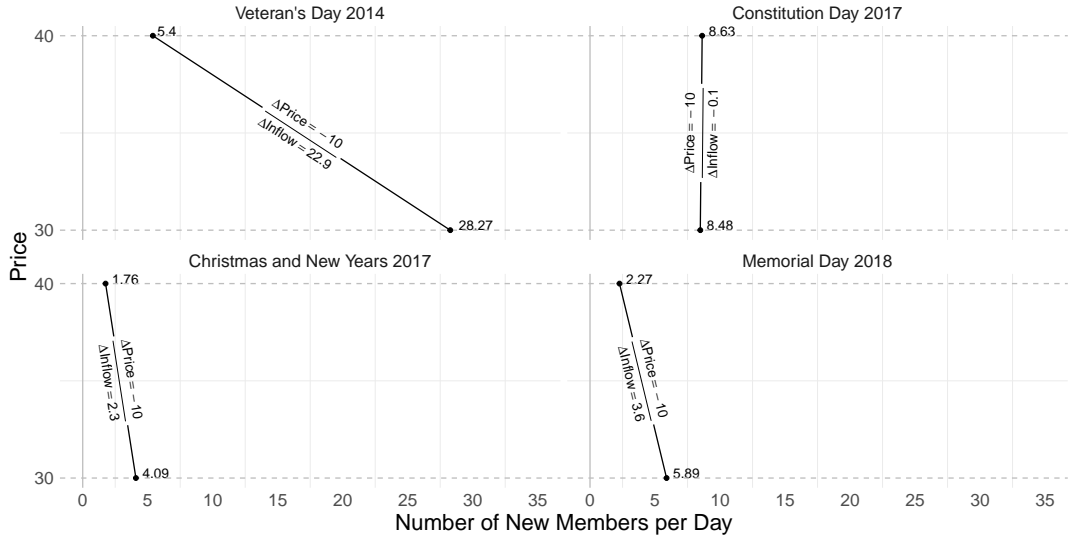


Figure 4: Estimated Linear Demand Functions During Each Discount

Shifts in the Demand Function

- ▶ Callout events
 - ▶ Cause-related marketing
 - ▶ signals ideology
 - ▶ **Largest response out of three tactics studied**
- ▶ NASCAR sponsorship
 - ▶ Sports sponsorship
 - ▶ meant to increase name recognition, in line with the informative view of advertising (Bagwell 2007)
 - ▶ Increase salience of organization
- ▶ Overall takeaway: Inflow of new Oath Keepers is highly elastic and reacts positively to demonstrations of ideology, such as callout events.

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Robustness Checks To conclusion

- ▶ Investigate the plausibility of alternative estimation strategies To horse race
 - ▶ Horse race between main specification, C. Carvalho, Masini, and Medeiros (2018), Xu (2017), Ferman and Pinto (2021) and Klinenberg (2022) (*JBES*)
 - ▶ C. Carvalho, Masini, and Medeiros (2018) performs comparable to main spec + similar treatment effects
- ▶ Time-varying relationships? To time-varying relationships
- ▶ Other checks: All member-types used (no change), 3 and 4 week pre-treatment period (no change) To longer pretreatments, No evidence of endogeneity of sales To alternative years, and using Google Trends for Oath Keepers as the outcome (similar results) To OK trends results

Heterogeneity Analysis: Does Demand React Differently in Different Areas?

Heterogeneity Setup

- ▶ Compare counties in the **top** quartile to **bottom** quartile across county income inequality, median household income, political conservative percent, white and rural percent To associations
- ▶ Limit window to 2 weeks before an event and during an event
- ▶ Use TWFE:

$$y_{i,t} = \beta I(\text{county } i \text{ in top quartile}) \times I(t > \text{event start date}) + \gamma_t + \gamma_i + \epsilon_{i,t}$$

- ▶ $y_{i,t} \equiv \#$ Oath Keepers joining per 100,000 in county i on day t
- ▶ cluster s.e. by county, weighted by county
- ▶ Outcome: $\approx .001 - \approx .01$ OK per day per county

Income Inequality $\uparrow \Rightarrow$ Price sensitivity \downarrow

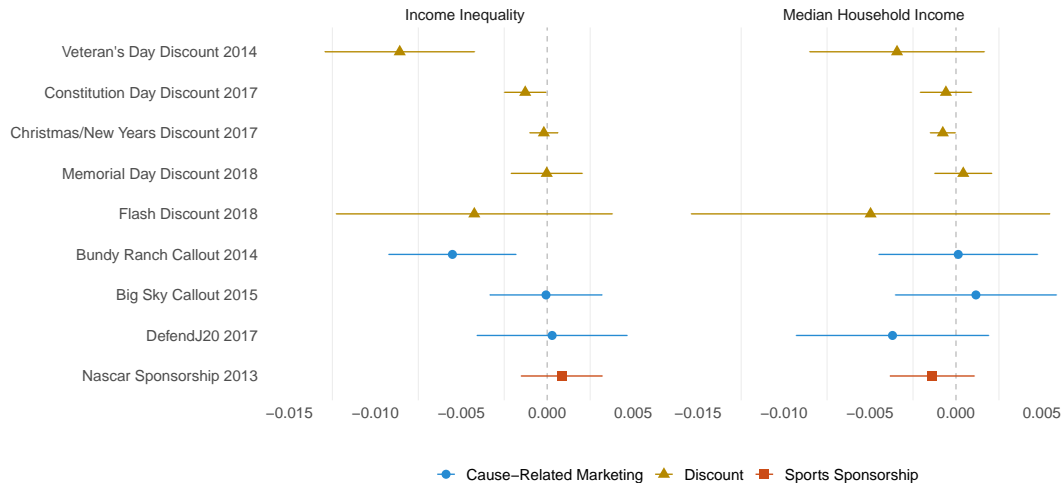


Figure 5: TWFE Estimate by County Income Characteristic by Event with 95% Confidence Intervals

Percent Politically Conservative $\uparrow \Rightarrow$ Price Sensitivity + Shifts \uparrow

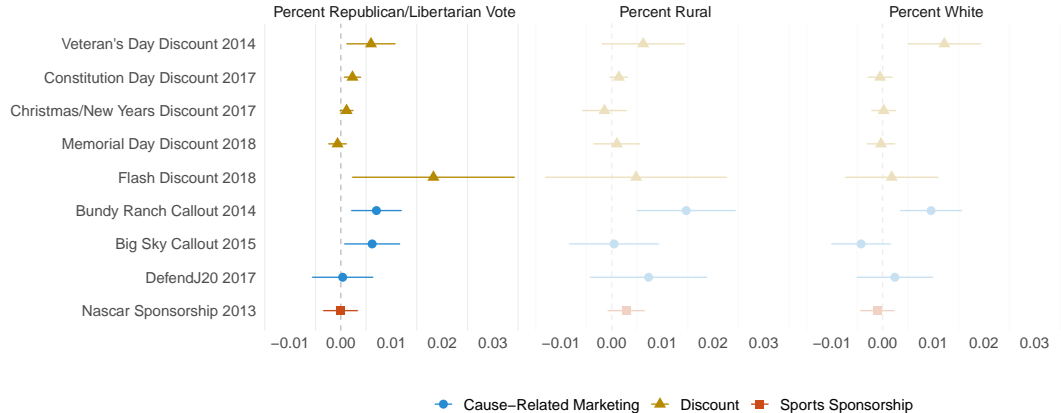


Figure 5: TWFE Estimate by County Demographic by Event with 95% Confidence Intervals

Percent White and Percent Rural $\uparrow \Rightarrow$ Shift From First Armed Standoffs \uparrow

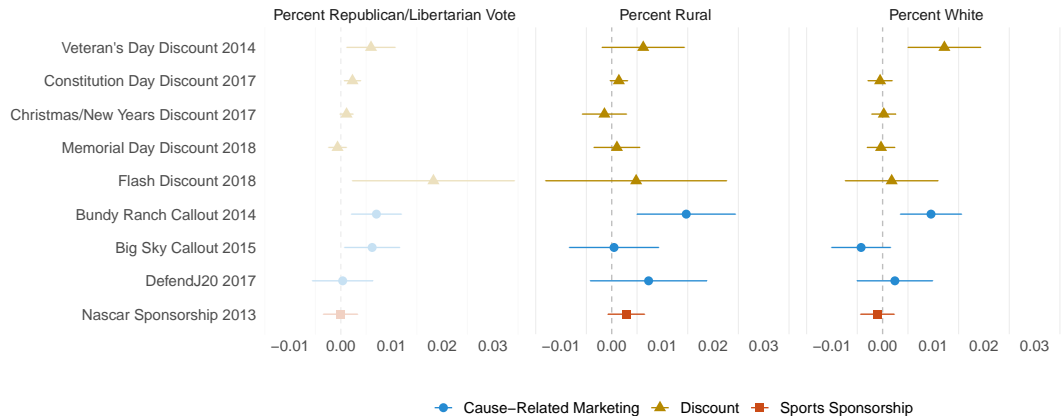


Figure 6: TWFE Estimate by County Demographic by Event with 95% Confidence Intervals

Conclusion

- ▶ How can we characterize the demand for membership in a domestic violent extremist organization?
 - ▶ Demand is **elastic**
 - ▶ Evidence exhausted submarginal consumer pool quickly
 - ▶ Demand responds most strongly to cause-related marketing
 - ▶ The sports sponsorship is counterproductive in the short run
- ▶ How do these tactics vary across demographics?
 - ▶ Less income inequality means more responsive demand
 - ▶ More politically conservative areas have more elastic demand and respond more to events

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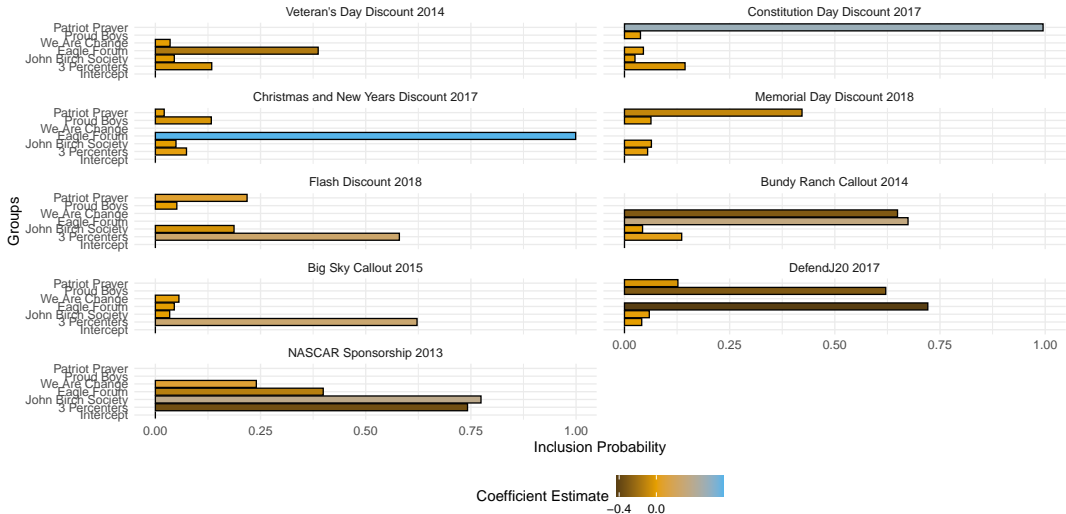


Figure 7: Contribution of Control Units to Each Counterfactual.



back to main slide

Table 3: Mean Squared Forecast Error of Alternative Models using First Seven Days Prior to Tactic. Counterfactual Estimates are Fitted to Days 8-14 Prior to a Tactic

	Main Specification	Ferman and Pinto (2021)	Carvalho et al. (2018)	Xu (2017)	Klinenberg (2022)
Discounts					
Veteran's Day Discount 2014	21.124	1393.884	9.367	775.191	17.113
Constitution Day Discount 2017	1.628	3.359	1.735	24.941	3.599
Christmas and New Years Discount 2017	2.472	866.313	2.836	80.033	3.589
Memorial Day Discount 2018	4.353	7.357	1.429	7.887	6.677
Flash Discount 2018	124.478	91.286	128.000	83.085	81.527
Cause-Related Marketing					
Bundy Ranch Callout 2014	19.971	153.453	24.265	226.585	77.804
Big Sky Callout 2015	287.685	738.880	164.980	1778.576	190.982
DefendJ20 2017	11.491	94.912	5.878	71.187	18.985
Sports Sponsorship					
NASCAR Sponsorship 2013	98.493	756.698	92.224	1385.714	160.147

Note:

See the appendix for results fitting the models on weeks 2-3 and weeks 2-4.

To robustness slide

Table 4: Average Effect of Sales on Oath Keepers' Recruitment Using Different Pre-Treatment Windows.

	Two Weeks Pre-treatment	Three Weeks Pre-treatment	Four Weeks Pre-treatment
Discounts			
Veteran's Day Discount 2014	22.88 [21.72, 24.01]	23.25 [22.03, 24.47]	23.5 [22.2, 24.82]
Constitution Day Discount 2017	-0.14 [-3.53, 3.16]	1.76 [-0.95, 5.51]	4.57 [1.26, 6.03]
Christmas and New Years Discount 2017	2.33 [1.83, 2.86]	6.92 [5.25, 8.55]	7.13 [5.46, 8.77]
Memorial Day Discount 2018	3.62 [3.06, 4.27]	2.24 [1.74, 2.74]	2.48 [1.95, 3.02]
Flash Discount 2018	38.47 [32.86, 44.02]	3.9 [3.12, 4.64]	0.1 [-3.49, 3.75]
Cause-Related Marketing			
Bundy Ranch Callout 2014	28.21 [26.1, 30.38]	37.44 [32.39, 42.52]	38.57 [33.47, 43.91]
Big Sky Callout 2015	12.9 [8.11, 17.43]	28.14 [26.46, 29.67]	27.99 [26.32, 29.63]
DefendJ20 2017	7.12 [5.71, 8.56]	10.31 [5.06, 15.29]	9.91 [5.37, 14.7]
Sports Sponsorship			
NASCAR Sponsorship 2013	-8.11 [-11.69, -4.54]	-9.56 [-11.75, -7.42]	-8.28 [-10.43, -6.07]

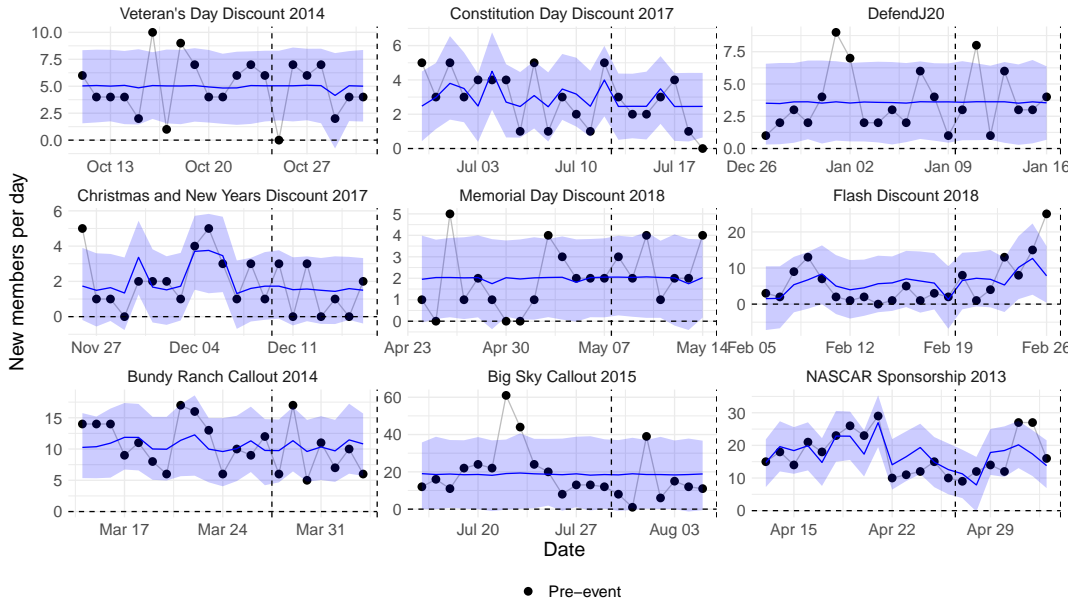


Figure 8: Placebo Test of Oath Keepers Sales on New Membership with 95% CI.

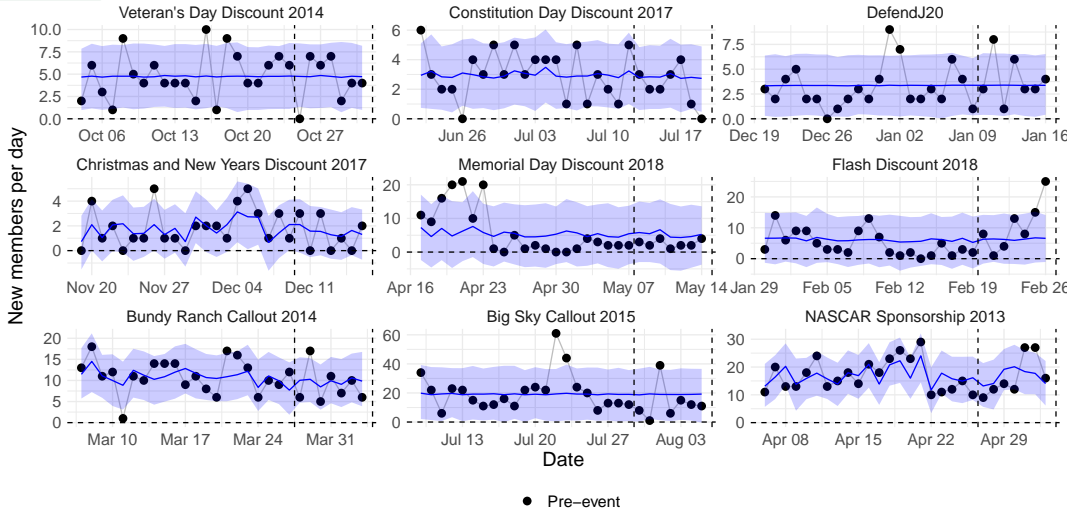


Figure 9: Placebo Test of Oath Keepers Sales on New Membership with 95% CI Four Week Placebo

Table 5: Average Effect of Oath Keepers Tactics Using Alternative Years

	2013	2014	2015	2016	2017	2018
<i>Membership Discounts</i>						
Veteran's Day Discount 2014	-5.35 [-13.25, 2.49]	<u>22.88</u> <u>[21.74, 23.98]</u>	0.71 [-0.82, 2.12]	2.23 [-0.04, 4.24]	-0.98 [-1.67, -0.23]	-
Constitution Day Discount 2017	-1.48 [-2.95, -0.1]	-0.26 [-2.39, 1.77]	3.01 [-1.25, 6.98]	4.13 [-0.49, 8.99]	<u>-0.14</u> <u>[-3.48, 3.2]</u>	-
Christmas and New Years Discount 2017	27.5 [26.41, 28.56]	-2.41 [-3.73, -1.06]	-15.05 [-23.1, -5.07]	-0.15 [-1.14, 0.86]	<u>2.36</u> <u>[1.68, 3.06]</u>	2.2 [1.6, 2.81]
Memorial Day Discount 2018	-3.57 [-6.43, -0.68]	-2.48 [-5.15, 0.29]	-1.13 [-21.47, 24.19]	1.85 [0.9, 2.87]	-0.38 [-1.48, 0.8]	<u>3.62</u> <u>[2.98, 4.24]</u>
Flash Discount 2018	-4.35 [-12.6, 3.72]	7.62 [5.29, 10.03]	5.93 [-1.67, 13.03]	2.13 [-0.61, 4.92]	2.69 [0.51, 4.89]	<u>38.47</u> <u>[32.92, 44.19]</u>
<i>Cause-Related Marketing</i>						
Bundy Ranch Callout 2014	1.8 [-0.04, 3.69]	<u>28.21</u> <u>[25.98, 30.25]</u>	-5.78 [-24.99, 12.49]	-0.19 [-2.37, 2.72]	0.61 [-1.54, 3.74]	-0.53 [-3.08, 2.04]
Big Sky Callout 2015	-0.06 [-1.3, 1.18]	0.29 [-0.76, 1.34]	<u>12.9</u> <u>[7.75, 17.78]</u>	0.47 [-0.17, 1.1]	-18.71 [-40.31, 6.47]	-
DefendJ20 2017	48.61 [27.72, 68.85]	2.4 [-0.77, 5.91]	3.77 [1.87, 5.6]	-5.82 [-10.51, -1.05]	<u>7.12</u> <u>[5.72, 8.57]</u>	-2.41 [-3.79, -1.07]
<i>Sports Sponsorship</i>						
NASCAR Sponsorship 2013	<u>-9.56</u> <u>[-11.7, -7.4]</u>	-17.89 [-21.69, -14.62]	2.72 [-84.99, 85.12]	3.5 [1.91, 5]	0.1 [-1.8, 1.82]	-3.87 [-8.08, 0.15]

Time-Varying Parameter (TVP) Specification

- ▶ Brodersen et al. (2015) allows for time-varying parameters
- ▶ **Problem:** parameters must be specified as time-varying or static - leads to overfitting and poor inference
- ▶ **Solution:** In Klinenberg (2022) (JBES), I propose a model that uses machine learning to let parameters be static or time varying

TVP cont.

► Brodersen et al. (2015) TVP specification:

$$g(y_{2,t} \cdots y_{n,t}) = \beta_{0,t} + \sum_{j=2}^n \beta_{j,t} y_{j,t} + \epsilon_t \quad \epsilon_t \sim \mathcal{N}(0, \sigma^2) \quad (3)$$

$$\beta_{j,t} = \beta_{j,t-1} + \eta_t \quad \eta_t \sim \mathcal{N}(0, \theta_j) \quad (4)$$

$$\beta_{j,0} = \beta_j \quad (5)$$

► Klinenberg (2022) specification:

$$g(y_{2,t} \cdots y_{n,t}) = \beta_{0,t} + \sum_{j=2}^n \left(\beta_j + \sqrt{\theta_j} \tilde{\beta}_{j,t} \right) y_{j,t} + \epsilon_t \quad \epsilon_t \sim \mathcal{N}(0, \sigma^2) \quad (6)$$

$$\tilde{\beta}_{j,t} = \tilde{\beta}_{j,t-1} + \eta_t \quad \eta_t \sim \mathcal{N}(0, 1) \quad (7)$$

Limited Evidence of Time-Varying DGP

To robustness slide

Bundy Ranch Callout 2014

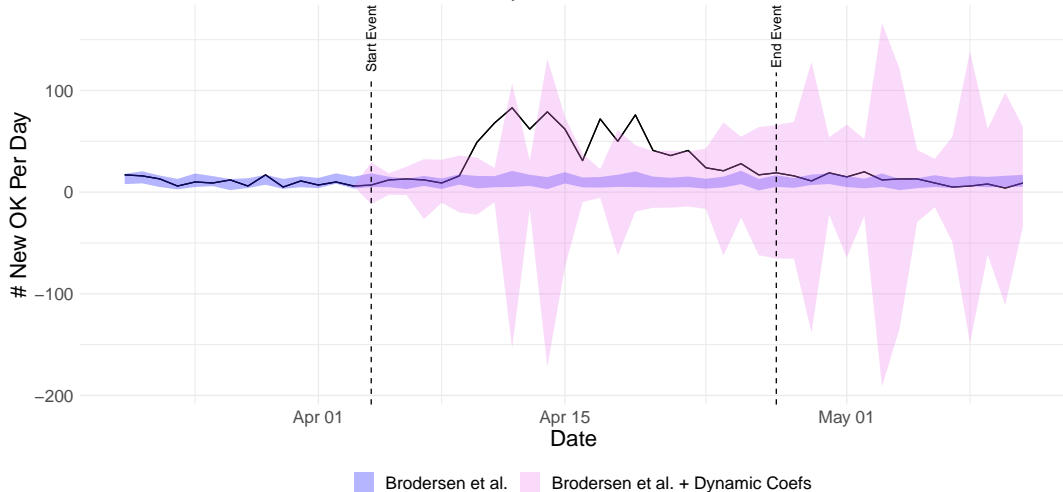


Figure 10: Comparison of 95% Credibility Intervals.

Limited Evidence of Time-Varying DGP

To robustness slide

Bundy Ranch Callout 2014

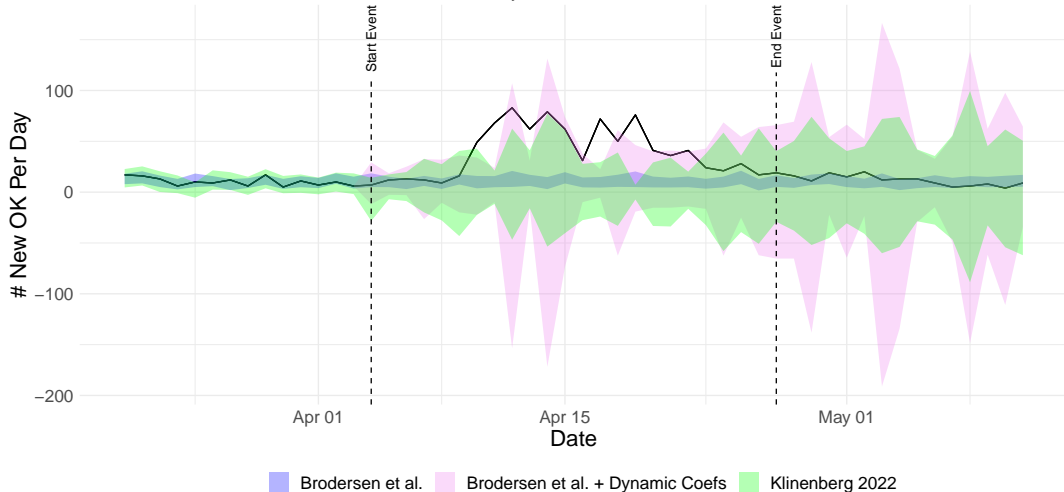
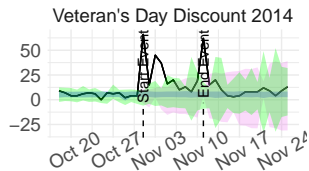
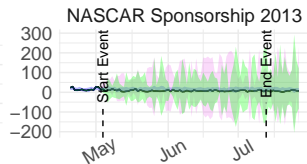
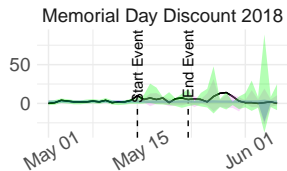
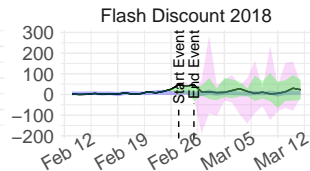
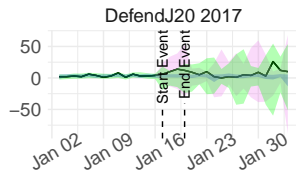
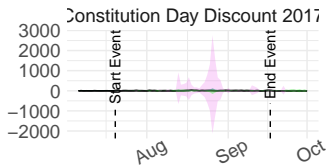
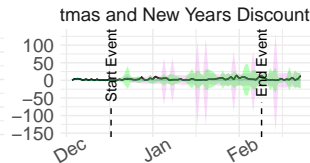
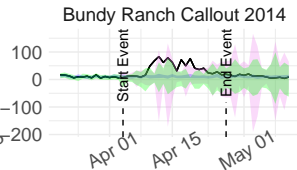
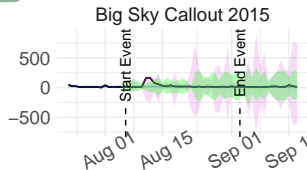


Figure 11: Comparison of 95% Credibility Intervals.

To robustness slide

New OK Per Day

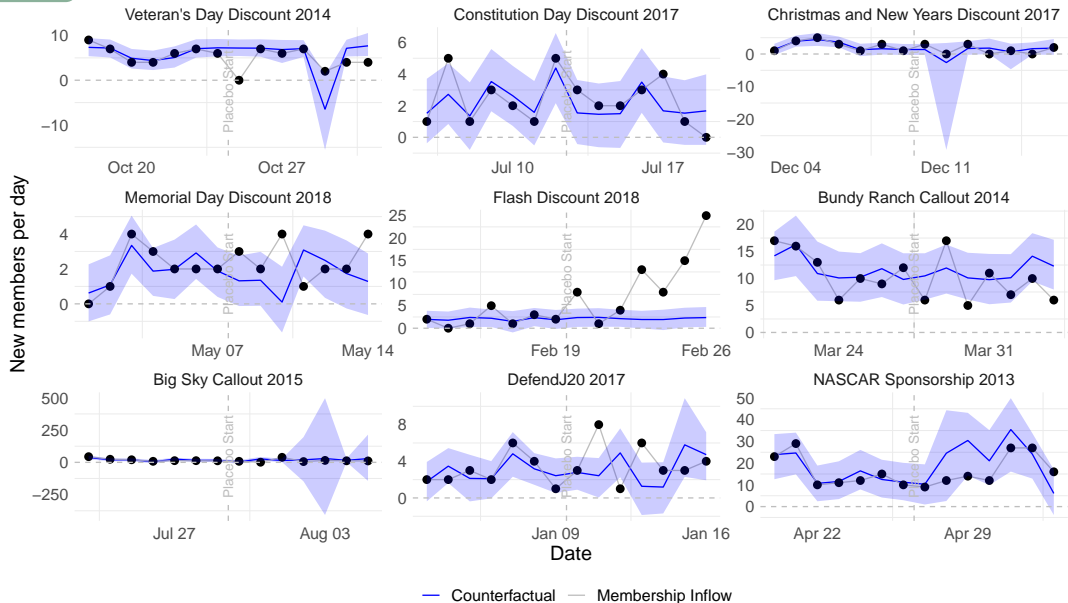


Date

Placebo Effects

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	Average Change in Inflow per Day
<i>Membership Discounts</i>	
Veteran's Day Discount 2014	-0.95 [-2.03, 0.26]
Constitution Day Discount 2017	0.3 [-0.84, 1.37]
Christmas and New Years Discount 2017	0.38 [-1.06, 3.84]
Memorial Day Discount 2018	0.95 [0.22, 1.86]
Flash Discount 2018	8.37 [7.22, 9.44]
<i>Cause-Related Marketing</i>	
Bundy Ranch Callout 2014	-2.42 [-4.46, -0.27]
Big Sky Callout 2015	-6.59 [-125.2, 104.67]
DefendJ20 2017	0.7 [-0.21, 1.67]
<i>Sports Sponsorship</i>	
NASCAR Sponsorship 2013	-5 [-12.49, 4.05]
Average Inflow from 2013-2018	9



Control Groups

► Identified using:

- 1) *Center for International Security and Cooperation's Global Right-Wing Extremism Map* (International Security and Cooperation 2022)
 - maps how far-right extremist groups are related to one another
- 2) Southern Poverty Law Center
 - yearly summary of active patriot groups in the United States
- 3) ACLED report on far-right militia groups (Raleigh, Stall, and Kishi 2020)



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Table 6: Control Units per Tactic

Sale	3 Percenters	John Birch Society	Eagle Forum	We Are Change	Proud Boys	Patriot Prayer
Discounts						
Veteran's Day Discount 2014	X	X	X	X		
Constitution Day Discount 2017	X	X	X		X	X
Christmas and New Years Discount 2017	X	X	X		X	X
Memorial Day Discount 2018	X	X			X	X
Flash Discount 2018	X	X			X	X
Cause-Related Marketing						
Bundy Ranch Callout 2014	X	X	X	X		
Big Sky Callout 2015	X	X	X	X		
DefendJ20 2017	X	X	X		X	X
Sports Sponsorship						
NASCAR Sponsorship 2013	X	X	X	X		

► Some organizations were created or became defunct in the time frame

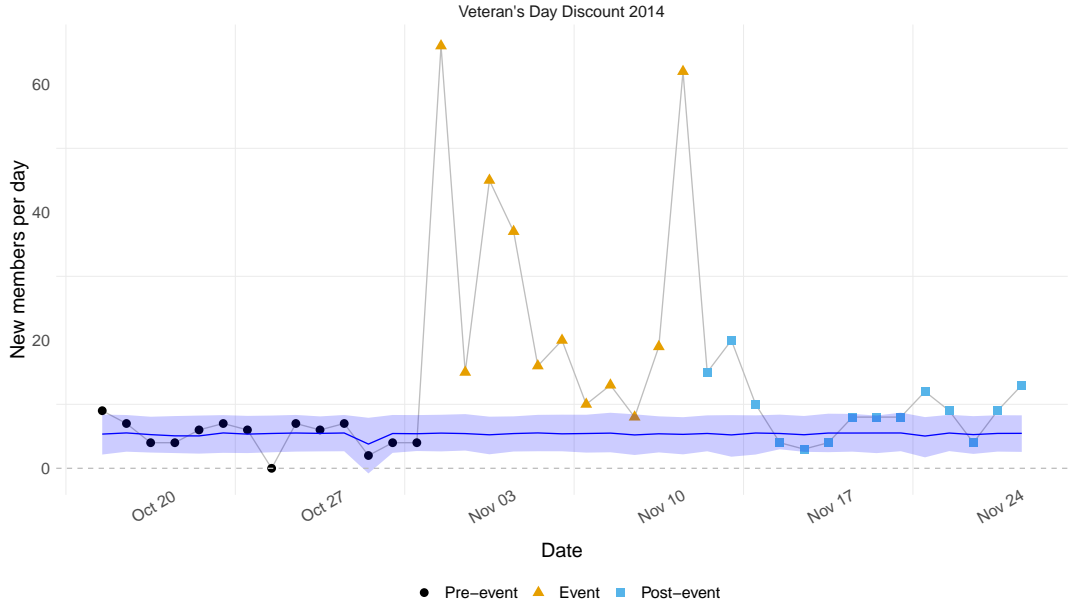


Figure 14: Effect of Oath Keepers Discounts with 95% Credibility Intervals

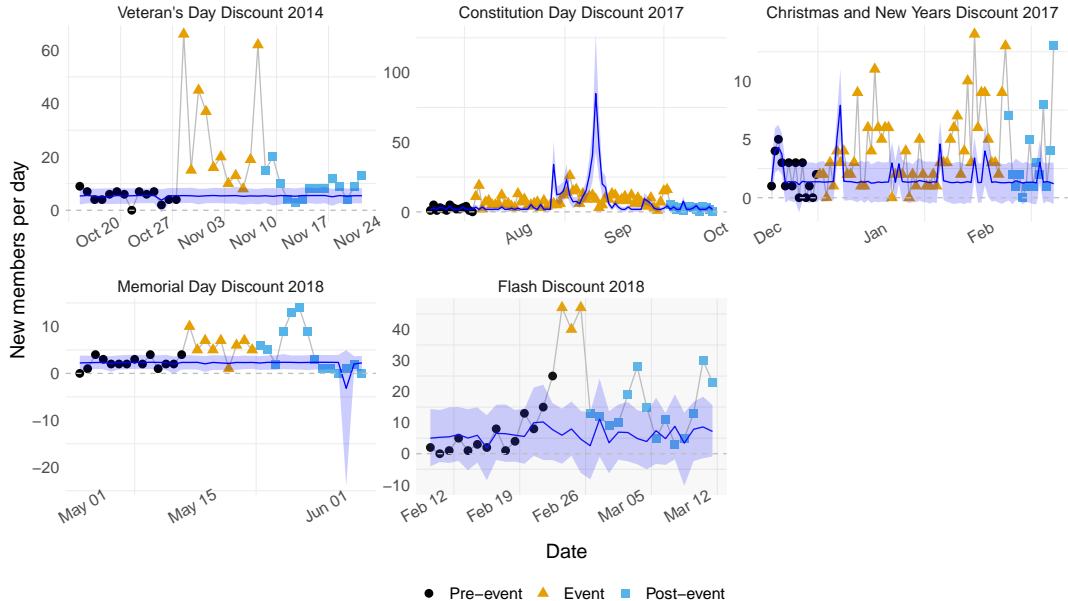


Figure 15: Effect of Oath Keepers Discounts with 95% Credibility Intervals

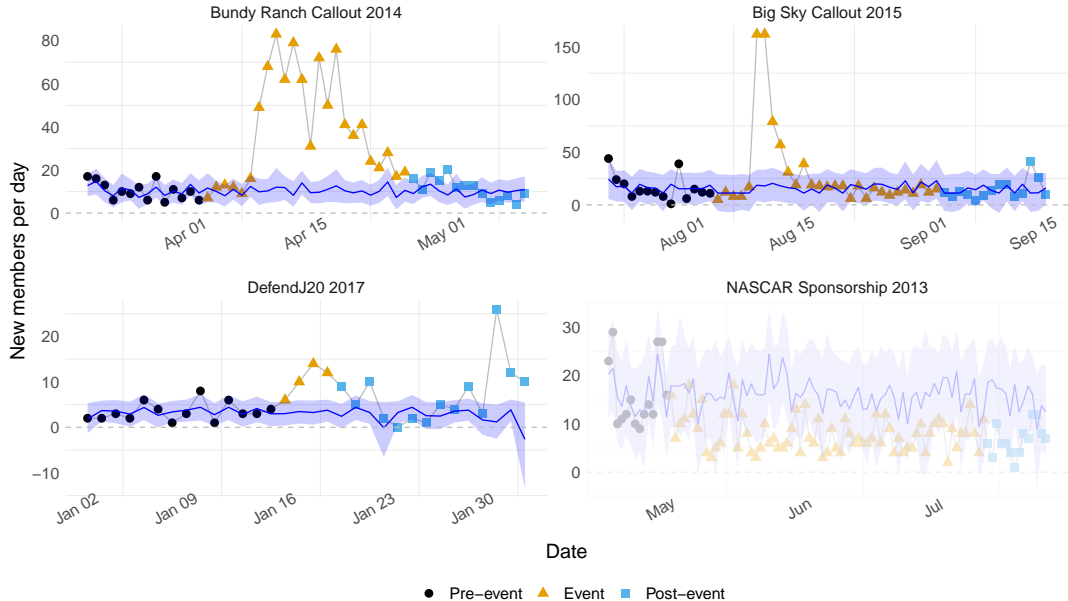
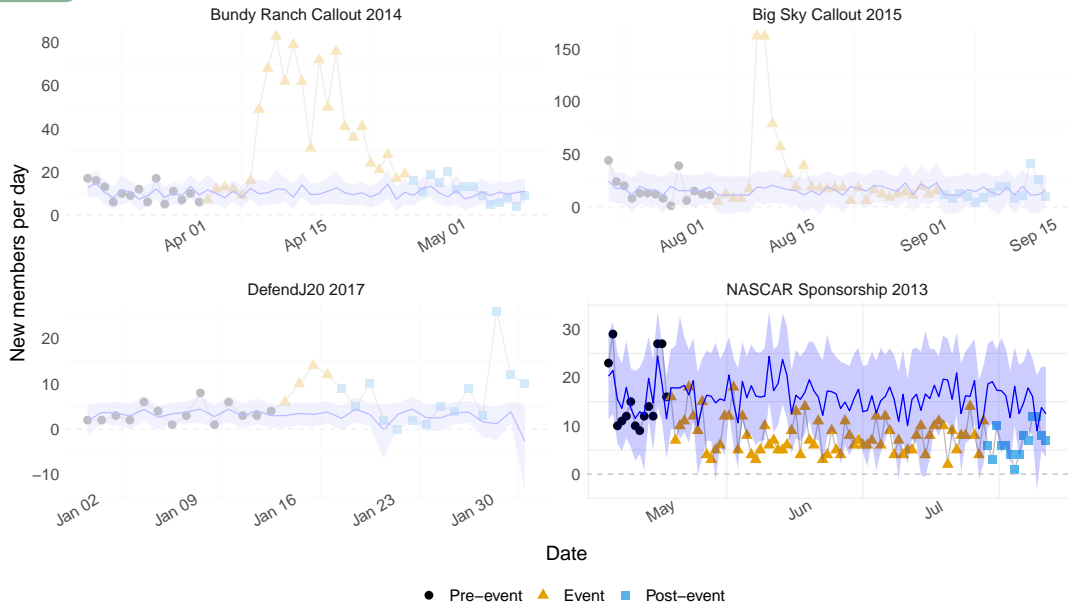
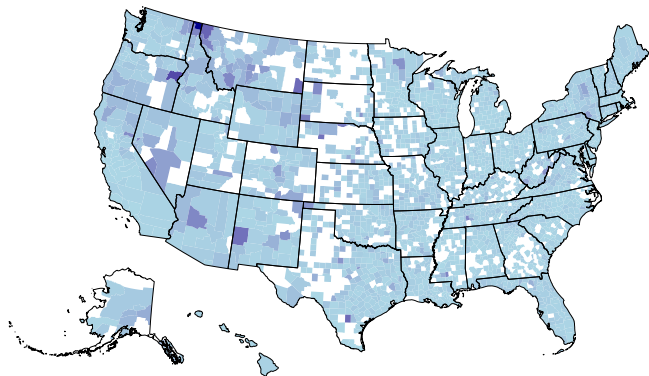


Figure 16: Effect of Oath Keepers Shifts in Demand with 95% Credibility Intervals





Total new members
per capita



0.001 0.002

- ▶ let $\beta = \{\beta_1, \dots, \beta_N\}$ be the set of coefficients
- ▶ $v = \{v_1, \dots, v_N\}$, where $v_j = 1$ if $\beta_j \neq 0$ and $v_j = 0$
- ▶ β_v as the nonzero elements of β
- ▶ Σ_v^{-1} be the rows and columns of Σ^{-1} that correspond to the nonzero elements of v .

Then, the slab and spike prior is formulated as:

$$Pr(v, \beta, \frac{1}{\sigma_\epsilon^2}) = Pr(v) Pr(\beta_v | v, \sigma_\epsilon^2) Pr(\sigma_\epsilon^2 | v) \quad (8)$$

$$Pr(v) = \prod_{j=1}^N \pi_j^{v_j} (1 - \pi_j)^{1-v_j} \quad (9)$$

- ▶ $\pi_j = .6$ for all j , which corresponds to just over half the predictors being included on average.
- ▶ Rest of prior follows a normal-gamma distribution:

$$\beta_v | \sigma_\epsilon^2 \sim \mathcal{N}(\mathbb{b}_v, \sigma_\epsilon^2 (\Sigma_v^{-1})^{-1}) \quad (10)$$

$$\frac{1}{\sigma_\epsilon^2} \sim \Gamma \left(.5, .1 \frac{1}{T-1} \sum_{t < T} (y_t - \bar{y}_t)^2 \right) \quad (11)$$

- ▶ Hyperparameters for σ_ϵ^2 are chosen based on the expected R^2 following Brodersen et al. (2015).
- ▶ $\Sigma^{-1} \equiv$ prior precision over β for full model with all variables included
- ▶ $\mathbb{b}_v = 0$.
- ▶ Σ^{-1} is the average between Zellner's g-prior and the diagonal elements. Formally, if G is the design matrix, then...

$$\Sigma^{-1} = \frac{1}{T} (.5G^tG + .5diag(G^tG)) \quad (12)$$

► $\sigma_{\eta}^2 = .01$ (results hold for $\sigma_{\eta}^2 = .1$)

Background Definitions

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Domestic Violent Extremists: *United States-based actors who, without direction or inspiration from a foreign terrorist group or foreign power, seek to further political or social goals through unlawful acts of violence.*
- Department of Justice

Radicalization: *psychological, emotional, and behavioral processes by which an individual adopts an ideology that promotes the use of violence for the attainment of political, economic, religious, or social goals.* - PIRUS

Statistical Significance + Signage \approx Main Result

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Table 7: Effect of Tactics on Oath Keepers' Google Trends

	Relative Effect (%)	Average Effect	Cumulative Effect
<i>Membership Discounts</i>			
Veteran's Day Discount 2014	138.78 [41.69, 383.11]	19.54 [10.83, 29.2]	214.9 [119.17, 321.17]
Constitution Day Discount 2017	27.84 [-1221.72, 912.77]	19.3 [2.63, 48.41]	1157.79 [157.89, 2904.35]
Christmas and New Years Discount 2017	6.89 [-33.21, 92.75]	-0.14 [-6.31, 6.11]	-7.59 [-347, 335.87]
Memorial Day Discount 2018	-79.89 [-160.96, 6.18]	-20.41 [-45.5, 5.54]	-183.71 [-409.48, 49.86]
Flash Discount 2018	230.33 [89.29, 713.7]	51.04 [35.68, 66.23]	153.11 [107.03, 198.69]
<i>Cause-Related Marketing</i>			
Bundy Ranch Callout 2014	498.99 [315.87, 833.4]	25.11 [23.1, 27.16]	602.66 [554.46, 651.79]
Big Sky Callout 2015	758.22 [572.24, 985.27]	8.69 [8.4, 8.95]	252.11 [243.46, 259.65]
DefendJ20 2017	131.42 [30.93, 384.5]	28.89 [13.52, 44.91]	115.57 [54.08, 179.63]
<i>Sports Sponsorship</i>			
NASCAR Sponsorship 2013	-38.22 [-51.36, -20.2]	-15.04 [-24.6, -5.9]	-1067.95 [-1746.49, -418.62]

Event Descriptions

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I

- ▶ Membership Discounts
 - ▶ 25% discount on annual membership
 - ▶ Normal cost: \$40
 - ▶ Two discounts dropped due to insufficient pre-treatment lengths
- ▶ Cause-Related Marketing
 - ▶ Bundy Ranch
 - ▶ Grazing dispute between Clive Bundy and federal officials from Bureau of Land Management
 - ▶ Culminated in militia groups performing armed standoff stopping government officials
 - ▶ How it ended for Oath Keepers: left when received “credible intelligence” that AG Holder was going to drone strike them

Event Descriptions [Back to slides](#) II

- ▶ Operation Big Sky
 - ▶ Set up an armed perimeter around White Hope Mine to stop U.S. Forest Service from performing job
 - ▶ Received less attention and attendance than Bundy Ranch
 - ▶ Ended when Oath Keepers switched attention to marriage certificate dispute in Kentucky
- ▶ Operation J20
 - ▶ Guard the Trump inauguration from “jihadist terrorists” and “radical leftist groups”

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79 79 79 79 79 79

JEFFREY EARNHARDT 79



OATH KEEPERS
OATHKEEPERS.ORG

NASCAR
Nationwide
SERIES

FW1
WASH & WAX
FASTWAX.COM

Raced four times sponsored by Oath Keepers

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- ▶ May 4, 2013 at Talladega (Placed 16th/40)
- ▶ June 1, 2013 at Dover (Placed 21st/40)
- ▶ June 22, 2013 at Elkhart Lake (Placed 26th/40)
- ▶ July 13, 2013 at Loudon (Placed 25th/40)

Inflows are Decreasing Over Time

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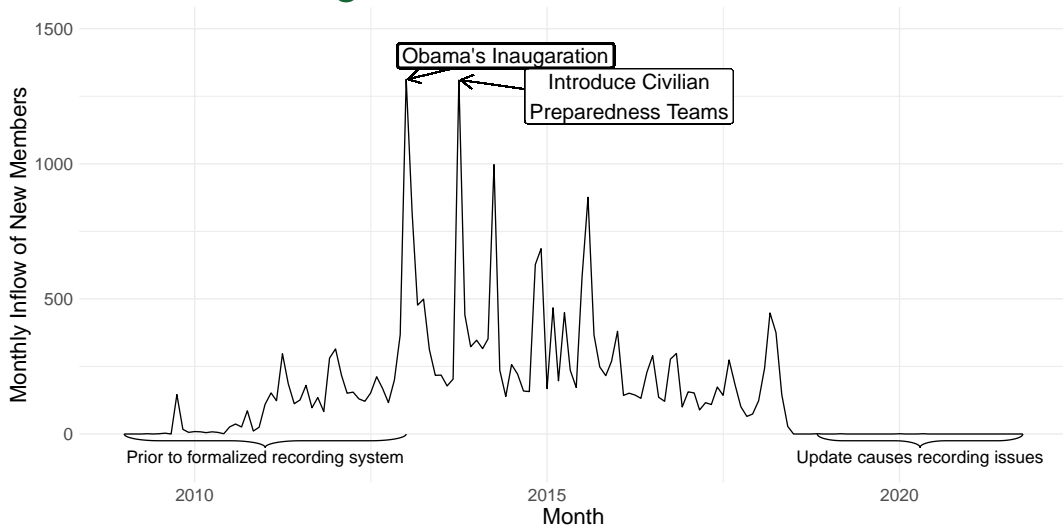


Figure 17: Monthly inflow of new members.

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[To Veteran's Day Discount 2014](#)

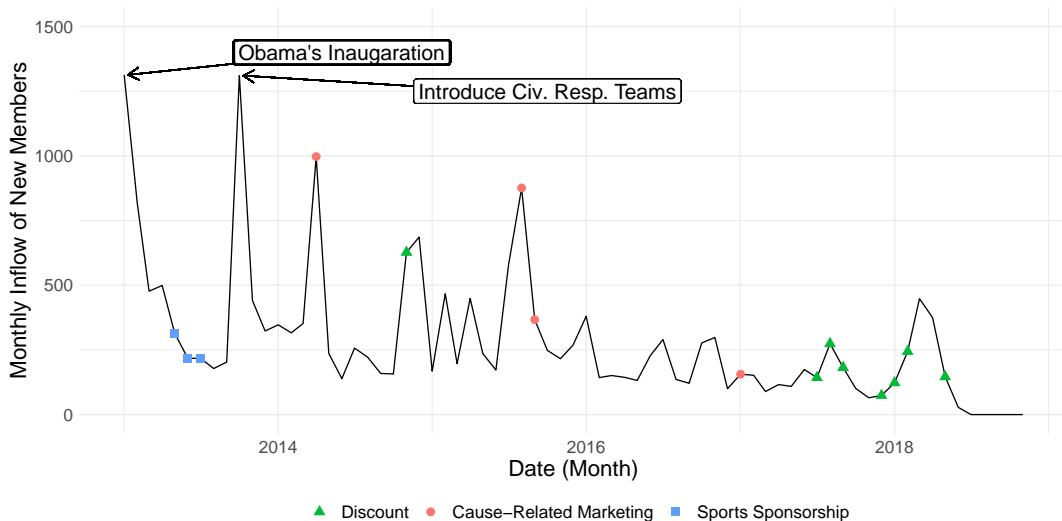
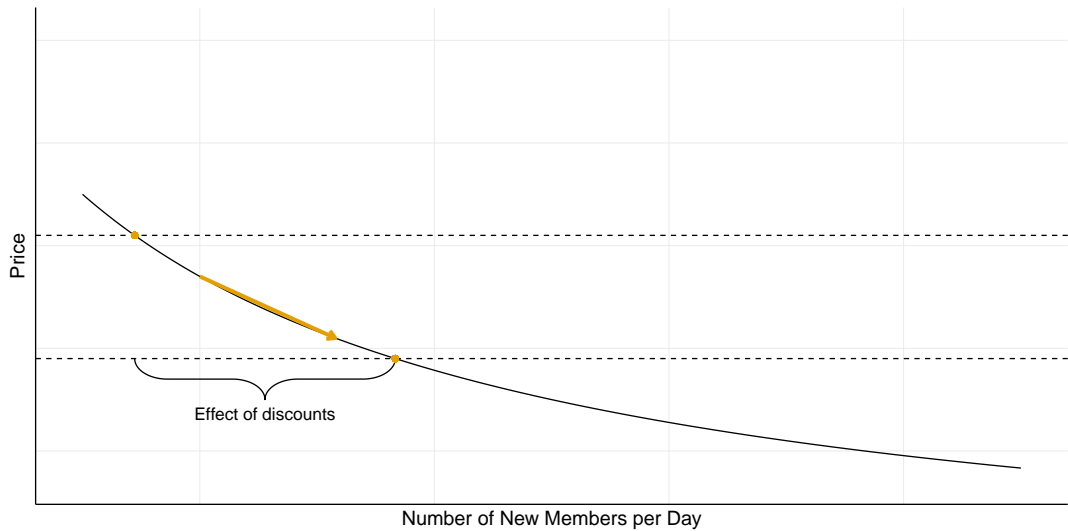
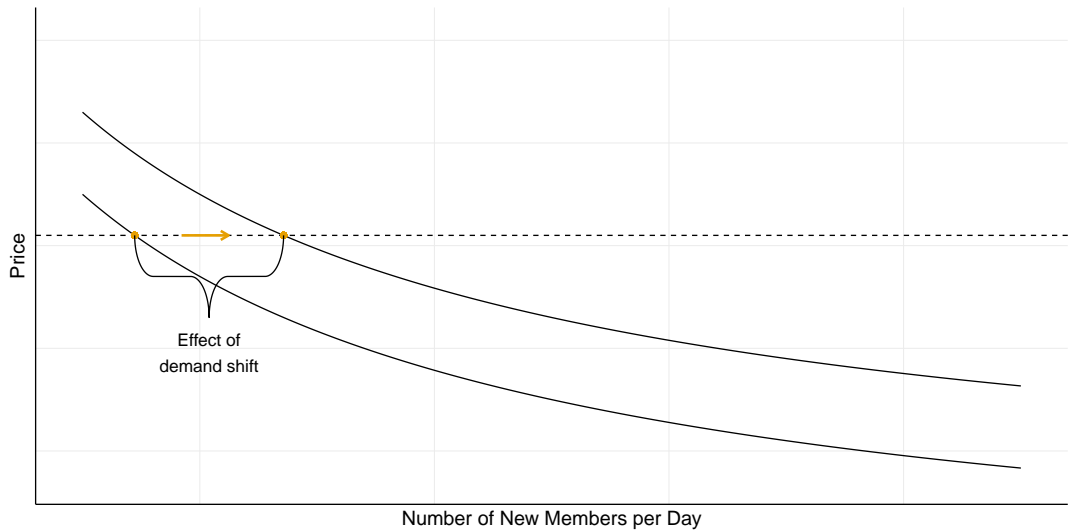


Figure 18: Monthly Inflow of New Members





Are the Observed Changes Statistically Significant?

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- ▶ Perform separate event studies for each event:

$$\text{Number of new members}_t = \alpha_0 + \alpha_1 I(t \in \text{event}) + \alpha_2 I(t \in \text{after event}) + \eta_t \quad (13)$$

- ▶ Newey-West standard errors

Discounts Boost Inflows, but Lose Effectiveness

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Figure 19: Effect of Oath Keepers' Movement Along Demand Function with 95% Confidence Intervals

Cause-Related Marketing Temporarily Increases Inflow

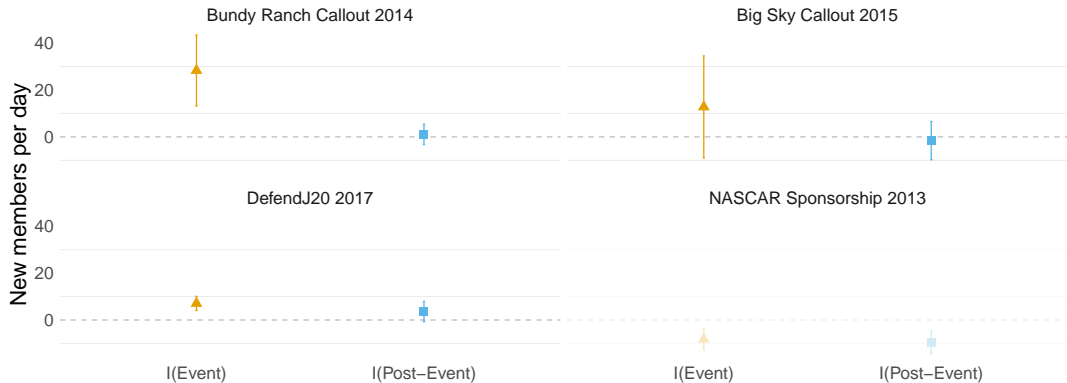
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Figure 20: Effect of Oath Keepers' Shift in Demand Function with 95% Confidence Intervals

The Sports Sponsorship Persistently Decrease Inflow

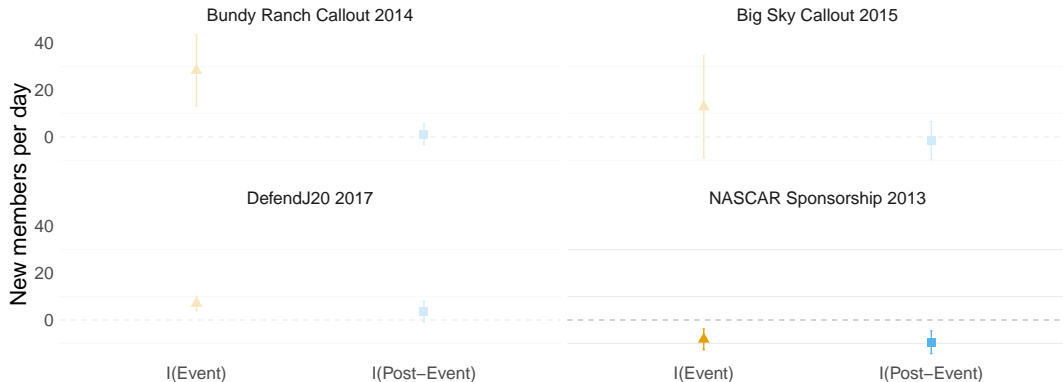
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Figure 20: Effect of Oath Keepers' Shift in Demand Function with 95% Confidence Intervals

Selection of Tactics

- 1) Must have an explicit start and stop date
 - 2) National events announced by the national leader of the Oath Keepers on the internal forum
 - 3) Two weeks prior to the tactic in which no other Oath Keepers events occurred
- ▶ Nine events in three categories: i) five 25%/\$10 off discounts, ii) three cause-related marketing events, and iii) one NASCAR sports sponsorship

Assosiation between membership and covariates

$$z_i = \alpha_0 + \alpha_1 \text{income inequality}_i + \alpha_2 \text{median income}_i + \alpha_3 \% \text{Libertarian/Republican}_i + \alpha_4 \% \text{White}_i + \alpha_5 \% \text{Rural}_i + \eta_i \quad (14)$$

- ▶ z_i is the total number of Oath Keepers signups in county i per 100,000 normalized by the 2018 population estimates.
- ▶ $\mathbb{E}[z_i] = 17.11$
- ▶ Weighted by county
- ▶ Heteroskedastic robust standard errors

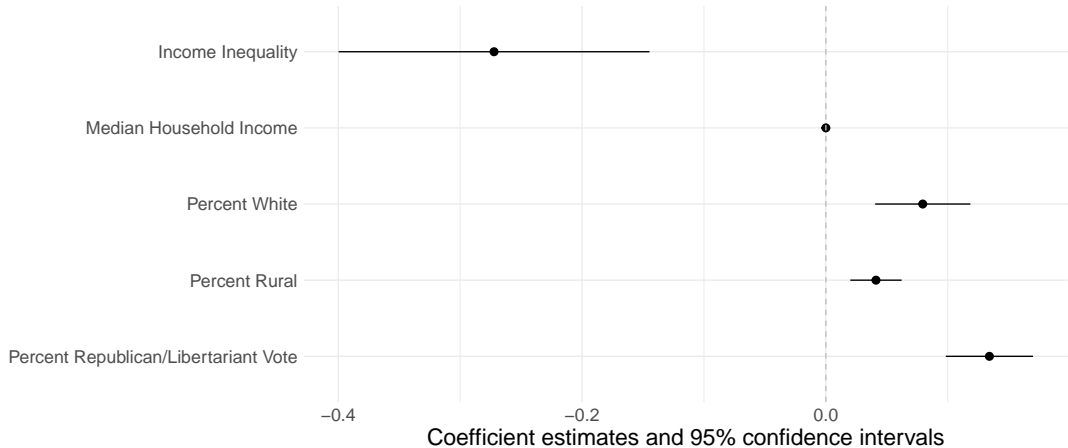


Figure 21: Associations between membership and explanatory variables.

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