Selling Violent Extremism*

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Domestic violent extremist organizations have become a significant threat to Western democracies, with some groups attracting tens of thousands of members. How do these groups amass such large followings? Surprisingly, extremist groups grow their membership by employing the same tactics that firms use to increase sales. I study how demand for membership in the Oath Keepers, America's largest paramilitary organization, is affected when the group's leadership employs three tactics commonly used by firms: membership discounts, cause-related marketing, and sports sponsorships. Using a variant of the synthetic control method, I find that discounts increase new memberships by over 60%, cause-related marketing increases new memberships by 150%, and sports sponsorships decrease new memberships. Demand for membership is less responsive to these tactics in counties with higher income inequality, but more so in heavily politically conservative counties.

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1 Introduction

Domestic violent extremism has recently migrated from the fringes of American society to become a major security threat (Homeland Security 2020, 2023; U. S. Government Accountability Office 2023). Participants in these activities are usually affiliated with extremist organizations. Nearly 70% of individuals in the United States who radicalized to the point of ideologically motivated criminal activity and 60% of people charged with felony illegal political violence are associated with a known extremist group or movement ("Profiles of Individual Radicalization in the United States" 2023; Loadenthal et al. 2023). The prevalence of organizational affiliation in extremist activity raises two crucial questions: what recruitment tactics do domestic violent extremist organizations employ and how can we characterize demand for membership in these groups?

There are two main challenges in answering the previous questions. First, membership data for domestic violent extremist organizations is usually unavailable to researchers. Second, only a subset of their activities are known, mainly from news coverage. I overcome both challenges by focusing on the Oath Keepers, the largest militia in the United States and an instrumental actor in multiple armed government standoffs. The organization experienced a data leak in September 2021 that resulted in its internal forum and membership records becoming available to researchers (ADL 2022). Surprisingly, the internal forum reveals multiple firm-like behaviors: The Oath Keepers sell yearly membership subscriptions and offer holiday discounts, perform cause-related marketing by organizing and participating in politically motivated events including armed government standoffs, and practice sports advertising by sponsoring athletes. I estimate the effects of these tactics on the inflow of new members, which directly translates to the price elasticity of demand for membership and shifts in the demand curve.

Using a variant of the synthetic control method, I find that 25% membership discounts lead to over 400 new members joining nationally during the discount, equating to approximately $12,000 in revenue. The results suggest a highly price elastic consumer base with the largest estimated elasticity greater than |17|. Estimated demand shifts inward and becomes less price sensitive over time, suggesting that the Oath Keepers exhausted the pool of consumers with low reservation prices quickly leaving a smaller, less price elastic consumer base. There are no or small observable effects in the two weeks that follow each discount.

Additionally, cause-related marketing and a sports sponsorship produce large shifts in demand, but in opposite directions. The cause-related events lead to over 1,000 new member signups during the events, equating to over $43,000 in revenue. Demand shifts back to pre-event levels after the conclusion of the callouts. Conversely, the NASCAR sponsorship caused a persistent decrease in new membership. This counterintuitive finding suggests that potential new members react positively to cause-related activities and are dissuaded by those that only increase salience, such as sports sponsorship. Together, the results show that the Oath Keepers are facing a highly price elastic consumer base that responds strongest to causes.

Demand in counties with higher levels of income inequality is not more sensitive to changes in price. Rather, counties with less income inequality had higher rates of recruitment during the first two discounts and callout event, but the differences disappear during later events. This suggests that policies aimed at addressing domestic violent extremism by reducing income inequality may ineffectively target the wrong counties.

Somewhat unsurprisingly, demand in counties with the largest share of votes for the Republican or Libertarian presidential candidate is more responsive to price changes

than in counties with the lowest share. This shows that highly politically conservative counties have a larger population of members willing to join the Oath Keepers at a discount, but not at full price. Demand shifts outward more for these counties during callout events, but not during the NASCAR sponsorship. Additionally, rurality and the percentage of white residents in a county caused a larger shift in demand during Bundy Ranch, an armed confrontation with federal agents in 2014 over a land dispute. Counties with a larger percent of white residents are more price sensitive during a Veteran's Day discount in 2014, but the effect is null for all other discounts.

The findings contribute to the initial steps of crafting effective policy through new insights into recruiting both violent and nonviolent members. While not all individuals who joined the Oath Keepers during the tactics went on to perpetrate violent acts,[1] simply belonging to such an organization can increase someone's propensity to become radicalized through the group (J.-P. Carvalho and Sacks 2022) as the group can be a radicalization pipeline (Nilsson 2022). A nonviolent member may indirectly increase extremism by recruiting others with a higher propensity for violence because of the contagion-like growth of these movements (Youngblood 2020). Therefore, effective policy should focus on mitigating the recruitment of both violent and nonviolent potential new members.

Furthermore, the Oath Keepers' firm-like behavior suggests that the predominant modeling of extremist organizations (Iannaccone 1992; Berman and Laitin 2008; Berman 2009; Morales, Raynold, and Li 2018) may not apply to this group. Rather than being hypersensitive to leaks, infiltration, and defection, as is common for groups perpetrating

[1]Kenneth Harrelson, one of the members in the database, first joined the Oath Keepers during a membership discount. He was sentenced to four years of prison for crimes related to the January 6^{th} insurrection (Department of Justice 2023b). Most of the individuals that joined the same day as Harrelson is attributed to the discount.

political violence, this study shows a financial motivation for the national organization's ostensibly ideological activity. The findings are also supported by firsthand accounts describing profit-motivated behavior among the leadership (Levine 2022; Wilson 2022). Even though court rulings imply that the Oath Keepers could be viewed as a terrorist organization (Department of Justice 2023a), it appears to operate differently from our previous understanding of such groups. This paper is unique from the limited literature that models violent groups as having firm-like behaviors (Fryer and Levitt 2012; Shapiro 2013; Limodio 2022) in that I am the first to quantify the price elasticity of demand and shifters in demand for membership in a violent extremist organization.

This stark difference in the Oath Keepers' organizational structure to previously studied groups may stem from the political setting. Violent extremist organizations, especially those commonly studied, often operate in countries where governments impose speech restrictions forcing them into the shadows. Therefore, the recruitment process is highly guarded and funding tends to come through illegal activities. The United States is the opposite: freedom of speech means that organizations can recruit openly and fund their operations partly through membership dues. The setting allows the Oath Keepers to recruit members akin to how previously studied groups in other parts of the world recruit donors. This strategy creates a pool of individuals with a higher propensity to commit ideological crimes the group can then radicalize potentially leading to violent extremism.

Finally, this is the first analysis to causally estimate the effect of traditional firm tactics on the inflow of new members to any domestic violent extremist organization. Obtaining information on domestic violent groups, even as general as the number of members per year, is difficult because of the culture of skepticism towards outsiders (Crost 2021; Williams et al. 2022). Most researchers instead rely on the Southern Poverty Law

Centers' count of extremist organization chapters per state or the Global Terrorism Database's reporting on domestic terrorist acts as dependent variables (Jefferson and Pryor 1999; Sean E. Mulholland 2010; Sean E. Mulholland 2012; Piazza 2016; Savage and Wimmer 2023), with few exceptions (e.g. Van Dijcke and Wright 2021). My study is the first economic analysis to utilize the leaked Oath Keepers' member database, which provides unprecedented access to the organization's inner workings. This allows me to study the demand for membership with a level of specificity previously infeasible for researchers.

The remainder of the paper proceeds as follows: Section 2 provides additional background on the Oath Keepers. Section 3 provides an economic framework used throughout the paper. Section 4 summarizes the data. Section 5 introduces the econometric model for the main analysis and investigates the plausibility of the assumptions. The results and robustness checks are presented and discussed in Section 6. Section 7 studies the differences in demand across county demographics including intra-county and inter-county income inequality, voting patterns, rurality, and racial composition. Section 8 concludes by summarizing the main findings.

2 Background

The Oath Keepers is a far-right paramilitary organization, founded on April 19, 2009 (Southern Poverty Law Center 2022). It focuses on recruiting former first responders and veterans, although anyone who can pay membership dues can join. The organization rose to prominence within the far-right community reporting 35,000[2] dues-paying members and being involved in the January 6 insurrection at the United States Capitol. It has

[2]While the Oath Keepers reported 35,000 individuals on their roster, independent estimates suggest that it never had more than 5,000 active members at a single point in time (Jackson 2020).

been described as "*…exemplify[ing] a style of American politics that views violence as a legitimate means to achieve political goals, at least under certain conditions*" (Jackson 2020) and "*…loosely structured, lack[s] a rigid ideological focus, and [is] united by things [it] opposes…rather than any central tenet*" (Valasik and Reid 2021).

Testimonies by former members and employees of the Oath Keepers suggest that the national organization was profit motivated (Levine 2022; Wilson 2022). The Oath Keepers raise funds through membership dues, donations, and selling merchandise. It offers a monthly, yearly, and lifetime membership, with the majority of members choosing to buy the annual membership. These funding strategies differ from most politically violent organizations studied, which tend to fund themselves through illegal activities.

Prior to 2013, the organization did not receive much public attention. Its first major event occurred on April 2014 when Oath Keepers traveled to Bundy Ranch in Bunkerville, Nevada to support Clive Bundy in his conflict with the Bureau of Land Management (Jackson 2020). The Oath Keepers participated in two additional armed disputes with federal law enforcement similar to Bundy Ranch: one in southern Oregon and another in Montana. The organization became more active after the election of Donald Trump, openly supporting him (Weil 2022) and serving as security forces for other far-right extremist groups and political candidates (Cheney 2022).

The organization was the focus of discussion at the United States House of Representatives Select Committee to Investigate the January 6^{th} Attack on the Capital on July 12, 2022.[3] As of August 8, 2022, The Anti-Defamation League (2022) had identified 81 individuals currently holding or running for public office in 2022, 373 law enforcement employees and 117 individuals currently serving in the U.S. military who are included

[3]A transcript of the hearing can be found at https://www.npr.org/2022/07/12/1111123258/jan-6-committee-hearing-transcript.

in the Oath Keepers membership database.

The organization's founder, Stewart Rhodes, had near-complete control over the national organization. Rhodes and other Oath Keepers have been convicted of seditious conspiracy related to their involvement with the January 6, 2021 insurrection at the United States Capitol. The court determined Rhodes' conduct was terrorism and sentenced him to 18 years in prison (Department of Justice 2023a).

3 Economic Framework

I introduce a simple framework of demand to study how the Oath Keepers' consumer base changes and what shifts demand. I focus the discussion on the *submarginal consumers*, those with reservation prices just below the cost of membership when no tactics are used.

The Oath Keepers' tactics fall into two categories: a shift along the demand curve by offering discounts and a shift in demand from reactions to events. Both methods attract *submarginal consumers* differently. The former tactic lowers the cost of joining below the submarginal consumer's reservation price while the latter provides new information that increases the reservation price above the cost of membership. For example, an individual who enjoys participating in armed government standoffs may not be aware of opportunities. The Oath Keepers involvement at Bundy Ranch may lead to the consumer learning of their activities and joining the group. This framework uses basic economic theory to provide new insights into the demand for violent extremist organizations.

Suppose the Oath Keepers consumer base has static preferences. Let $P_t(q)$ be the price of joining given q new Oath Keepers join. $P_t(q)$ is a well behaved downward

sloping function that is time invariant within time period t. The Oath Keepers face a standard cost function, the specifics of which do not affect the takeaways.

Within time period t, either the Oath Keepers offer discount membership dues or perform an event (i.e. armed standoff or advertising campaign). The discounts are assumed to be independent of a change in the demand function (e.g. a setting like Garrett 2016), while the events serve as additional information for the consumers. During a discount, the Oath Keepers drop the price of yearly membership from p_0 to p_1, while the price remains at p_0 during a callout event or advertisement.

Figure 1 plots example demand curves for a discount and an event at various membership prices. The x-axis is the inflow of new Oath Keepers per day and the y-axis is the price for membership. In panel A, the submarginal consumer are those who join at p_1 but not p_0. In panel B, the submarginal consumers are those who only join during the event. While simple, the diagrams motivate the estimation of two understudied features of domestic violent extremism: how the demand for violent extremist organizations changes over time and what shifts the demand for such organizations.

Notice areas b and c both capture the additional surplus for the submarginal member. In the case of b, the Oath Keepers drop the cost of membership to increase the inflow of new members. Conversely, area c is the additional surplus from new members who only joined because of a cause-related marketing event or sports sponsorship. Put simply, panel A drops the cost of joining below the reservation price for the submarginal consumer while panel B introduces new information that raises the submarginal consumer's reservation price above the cost of membership.

[Figure 1 about here]

Do areas b and c remain constant over time? The Oath Keepers kept their annual

membership price constant and offered the same discount multiple times, which allows me to estimate area b over many years. The price elasticity of demand can also be estimated to provide insight on the proportion of consumers with high reservation prices (i.e. greater than p_0) to the submarginal consumer. A price elasticity of demand decreasing over time suggests the marginal consumer base has been exhausted leaving only a pool of high reservation consumers. While smaller, this group may be more dedicated. On the other hand, area c cannot be explicitly estimated without overly restrictive assumptions on the demand function. Rather, I estimate the change in the inflow of new members across the events.

I also compare the effects across event types. The simplest approach is a comparison in inflow of new members and percent change in the inflow of membership. The relative effectiveness of each tactic showcases whether the submarginal member is more responsive to changes in price, armed standoffs, or traditional advertisement.

4 Data

Data for the main analysis comes from a leaked internal membership roster and Google Trends. In September of 2021, hacked internal membership records and communications were made available to academics through *DDOSecrets*, a journalist 501(c)(3) nonprofit focused on publishing leaked data ("Distributed Denial of Secrets"). Each row of the roster contains an individual's Oath Keepers membership ID, membership type, name, physical and email address, and join date. The columns are not labeled. While columns such as name and address are obvious, the join date column was identified by comparing the date individuals said they joined in the forum to the recorded date in the roster.[4]

[4]Specifically, I use `aggregate_members.csv` to create the inflow data. I identify column `M` as the join date.

In total, there are 37,976 rows in the database. Each individual in the database paid dues at least once (ADL 2022). I limit the analysis to individuals who bought an annual membership and that have a recorded join date. This was the predominant membership type, with 86.5% of the sample buying an annual membership. Due to recording errors, some members do not have their join dates recorded or have join dates before the organization began. Those individuals are dropped from the analysis. This process removes 12,920 individuals leaving 25,056 new Oath Keepers with join dates. All data is aggregated to the daily level. The Oath Keepers' membership roster does not include recurring payments, which means individual's tenure in the organization cannot be studied. Therefore, all results pertain to the effect of discounts on *inflow* of new members, not retention.

The leaked documents also include all messages on an internal forum. Based on forum posts, the recording system for the Oath Keepers was formalized around 2013. In addition, the Oath Keepers updated their site starting November 2018, which caused significant back-end issues, such as members not receiving their welcome packages, having trouble accessing online sources, and recording errors in their database. To ensure that the findings aren't driven by recording issues, I limit my analysis to between January 1, 2013 and November 1, 2018. In total, there are 20,447 new Oath Keepers and join dates in the dataset in this time frame.

Membership expanded across the whole country with 79.2% of counties having at least one individual sign up for the Oath Keepers during this time period. Counties in the Southwest and Northwest had the largest membership. The top three most populous Oath Keepers counties measured in new recruits per capita were in Idaho, Oregon and Montana while the top three most populous Oath Keeper counties measured in total number of Oath Keepers were in Arizona and Nevada. Maps of Oath Keepers

membership by county are presented in the appendix.

4.1 Selection of Tactics

I limit the tactics to Oath Keepers events that have explicit start and end dates, were national events supported by the national leadership, and follow two weeks during which no other Oath Keepers events occurred. These selection rules include most types of events the Oath Keepers organized. Notable exceptions are emergency response callout events and nonviolent gatherings, which tend to have a national call to action to initiate, but no official end dates. Details on these types of events, including the level of participation, are ambiguous due to a lack of reporting on the internal forum and by outside sources.

Table 1 reports the start dates and end dates of all the events used in this analysis.

[Table 1 about here]

Membership Discounts

Annual dues cost $40. A membership discount is when the organization temporarily reduced the cost of joining by approximately 25%. Seven membership discounts were identified. Each discount start and end date was first identified in the forum and corroborated by looking for changes in price on their website via the Wayback Machine.[5] Two discounts were dropped due to having less than a two week pre-period between events. The discounts tend to cluster around patriotic holidays including Veteran's Day and Memorial Day.

[5]The Wayback machine saves instances of a website at a given point in time. A directory of instances saving the Oath Keepers' main page is at: https://web.archive.org/web/20091201000000*/oathkeepers.org

Cause-Related Marketing

The Oath Keepers organized and participated in multiple politically motviated events, some of which were armed callouts. An armed callout is when the Oath Keepers organized and/or participated in armed standoffs with federal agents. From 2013-2018, the Oath Keepers participated in armed standoffs at Bundy Ranch and Big Sky. Both events involved the Oath Keepers occupying territory. A third armed standoff occurred at Sugar Pine Mine in Josephine County, Oregon. Although the local Oath Keepers chapter voted unanimously to participate in the standoff (Tatenhove 2023), the Oath Keepers national leadership was opposed to the activity (Jackson 2020). I omit this standoff.

In addition, the Oath Keepers issued a call to action, codename *DefendJ20*, to guard the inauguration of Donald Trump on January 20, 2017. There is no indication the organization was asked to do so by any local, state, or federal official. The members were instructed to "watch for jihadist terrorists" and "radical leftist groups" (Hatewatch Staff 2017). Unlike the armed callouts, the founder encourages the members to adhere to the rules of inaugaration and not bring their firearms. Members are told to film incidents and report them to police, unless they needed to engage in combat (Hatewatch Staff 2017). The event begins with the official callout on January 17^{th}, 2017 and ends on the day of the inauguration.

The Oath Keepers also sponsored two national armed security events without a national gathering. Both were in response to shootings, one at a school and the other at a military recruiting center. Military recruiters were instructed to treat the armed civilians, such as the Oath Keepers, as a threat and call the police (Tritten 2015). These events are omitted because of ambiguity in the length of the events and intensity of participation.

Finally, I do not include the Oath Keepers' activity during the civil unrest in Ferguson, Missouri, because it was not an official callout event made by the national organization.

Sports Sponsorship: NASCAR

In 2013, the Oath Keepers sponsored NASCAR driver Jeffrey Earnhardt. The Oath Keepers logo was prominently displayed on the hood of his car for four races beginning May 4, 2013 and ending July 13, 2013.[6]

The Oath Keepers' also ran a billboard campaign starting in 2013.[7] The details about the length of time and location of billboards is provided for some, but not all, of the billboard campaigns via the forum records. I omit these events from the analysis due to this lack of information.

4.2 Trends in Recruitment

The variable of interest is the inflow of new Oath Keepers signups around the tactics. Figure 2 plots the daily inflow over a span of two weeks prior to, during, and two weeks after each respective event. The diverse duration, as detailed in Table 1, ranges from brief instances lasting merely three days to more prolonged occurrences extending across several months.

[Figure 2 about here]

The graphs provide two insights. First, the discounts and cause-related marketing both lead to increases in the inflow of new members. The inflow of new members increases within the first few days of the discount and remains during the discounts. Additionally, the two armed callouts lead to a spike in recruitment a few days after

[6]See https://www.racing-reference.info/sponsor-search/.
[7]See https://web.archive.org/web/20130822072521/http://oathkeepers.org/oath/billboard/.

the announcement. The delayed increase may be driven by news of the armed callouts slowly spreading. For example, the Big Sky callout spike corresponds with the Oath Keepers' leader appearing on InfoWars. Second, the inflow trends downward during the NASCAR sponsorship. This trajectory continues during the two weeks after the sponsorship ends.

The observed patterns described above are confirmed to be statistically significant by running the following event study separately for each event:

$$y_t = \alpha_0 + \alpha_1 I(t \in \text{event}) + \alpha_2 I(t \in \text{after event}) + \epsilon_t \tag{1}$$

where y_t are the number of new Oath Keepers signups on day t and Newey-West standard errors are used. Table 2 presents the results from the event studies. The bottom row tests the hypothesis that the inflow of new members during the event is the same as the inflow after the event. The p-values are reported in the table.

[Table 2 about here]

All discounts lead to an increase in the average number of new members during the discounts. There is evidence of a persistent increase in the inflow of new members during the Veteran's day and Flash discounts, but the effects are substantially smaller than during the event. Similarly, there is evidence of an effect during the cause-related marketing. The effect during Big Sky is large though imprecisely measured while the effect of Bundy Ranch and DefendJ20 are both large and precisely estimated. There is little evidence of a persistent effect after the callouts. Finally, the NASCAR sponsorship suggest a drop in membership during the campaign that persisted at least two weeks following the conclusion of the sponsorship.

The event study results may be interpreted as causal if the model is properly specified. However, there are concerns of omitted variable bias such as consumer tastes. For example, changes in the popularity of the militia movement in general during these events could be driving the findings or a discount being strategically announced after a positive news story to capitalize on the increased coverage. The observed increase would inappropriately be attributed to a discount, callout event, or advertising campaign when the true cause is an unaccounted for shift in demand that coincided with a tactic. Section 5 presents an identification strategy to addresses this concern by constructing a counterfactual made up of online search trends for similar organizations. The findings presented in Section 6 are similar in magnitude and significance to Table 2.

4.3 Control Groups

Because tactics may occur simultaneously with other shifts in demand, I compare the inflow of new members during a tactic to a plausible counterfactual. The econometric specification described in Section 5 relies on creating a counterfactual from organizations similar to the Oath Keepers. I use three sources of information to identify these groups. The first is the *Center for International Security and Cooperation's Global Right-Wing Extremism Map* (International Security and Cooperation 2022), which maps how far right extremist groups are related to one another. The second is the Southern Poverty Law Center's yearly summary of active patriot groups in the United States. I limit the sample to organizations that have a similar presence to the Oath Keepers across the country. Finally, similar groups are also found using the Armed Conflict Location & Event Data Project (ACLED) report on right-wing militia groups in the United States (Raleigh, Stall, and Kishi 2020). The report identifies nine large, cross-state right wing

militia groups including the Oath Keepers.

Membership data is unfortunately unavailable for these groups, a common issue faced by researchers in this field. I instead use Google Trends, a measure of general interest, of comparable groups to construct a counterfactual. Google Trends was pulled separately for each donor for each event on May 14, 2023 with the time frame beginning four weeks before the start of the event and ending two weeks after the conclusion of the event. The data is pulled four weeks prior to the start of events so that robustness tests aren't affected by changes in how Google normalizes the data, which depends on the time frame.

Table 3 shows the organizations used to construct the counterfactual in each tactic. An "X" signifies if the organization is included in the estimation for that specific event. All the organizations aren't used in all the counterfactual estimations because the organization may not have been founded yet or significantly shrunk by the event. For example, the Proud Boys was founded in 2017.

The John Birch Society is an antigovernment movement first started in the 1950s known for spreading conspiracy theories (Southern Poverty Law Center 2021). The Eagle Forum and We are Change are also listed as antigovernment movements (Southern Poverty Law Center). The Three Percenters are another militia group that International Security and Cooperation (2022) reports as an ally to the Oath Keepers. Finally, the Proud Boys described as "*a nation-wide right-wing street movement*" (Raleigh, Stall, and Kishi 2020). The leader of the Proud Boys and four other members were also indicted for seditious conspiracy related to their involvement at the capital on January 6^{th} (Department of Justice 2022). The remainder of the groups were analyzed in Raleigh, Stall, and Kishi (2020).[8]

[8]The SPLC also includes the American Contingency, Light Foot Militia and Civilian Defense Forces

[Table 3 about here]

4.4 County-Level Demographics

Section 7 studies the differential effects of tactics across county-level economic and demographic characteristics. Previous findings suggest that "poverty has [sic] as a very strong influence on domestic terrorism" (Enders and Hoover 2012) internationally and contributed to the rise of anti-democratic extremism in the United States (Crost 2021), while others find that societal factors, not economic ones, are significant predictors of right-wing extremism in the United States (Piazza 2016). I investigate whether commonly studied economic and demographics county characteristics influence the effectiveness of recruitment tactics.

Economic inequality is measured using the median income and the income inequality metric, measured as the ratio of the mean income for the highest quintile divided by the mean income for the lowest quintile for each county. Both metrics for each county per year comes from the FRED database. Demographic characteristics include the percent of a county that voted Republican/Libertarian, from the MIT Election Lab (MIT Election Data And Science Lab 2018), the percent of a county that identifies as white, from the ACS estimates, and the percent of the population that lives in a rural area, gathered from the 2010 Census. Finally, population estimates come from the Census Bureau.

[Table 4 about here]

Table 4 presents summary statistics of the demographic data for the top and bottom quartile of the distribution. *Lower quartile Mean* is the average value of all counties in the

in their list (Southern Poverty Law Center). The American Contingency was founded in 2020, after the last tactic studied. Light Foot Militia and Civilian Defense Forces are omitted due to a lack of information on the groups' founding dates.

bottom quartile by characteristic, while *Upper quartile Mean* is the average value of all counties in the bottom quartile by characteristic. Across all events and all characteristics, the difference between the bottom and top quartiles is statistically significant.

I estimate the relationship between the total inflow of Oath Keepers into a county and county level determinants as:

$$z_i = \alpha_0 + \alpha_1 \text{income inequality}_i + \alpha_2 \text{median income}_i + \alpha_3 \%\text{Libertarian/Republican}_i + \alpha_4 \%\text{White}_i + \alpha_5 \%\text{Rural}_i + \eta_i \tag{2}$$

where z_i is the total number of Oath Keepers signups in county i per 100,000 normalized by the 2018 population estimates. Notice this captures the total inflow of Oath Keepers to a county, not the the net flow. All explanatory variables are from 2018 with results robust to using alternative years.

Table 5 presents the findings. The number of Oath Keepers per 100,000 is associated with both commonly studied economic and demographic county level characteristics. Within county income inequality is the most strongly associated with and inversely related to the the total number of Oath Keepers signups. Together, these findings suggest that counties that have lower household income and a smaller spread in the distribution are more likely to have more Oath Keepers signup.

[Table 5 about here]

Conversely, the percent of Libertarian and Republican voters, the percent of white residents in a county, and rurality of the county are all positively and statistically significantly associated with the total number of Oath Keepers signups. Additional modelings

specifications are presented in the appendix.

5 Econometric Specification

5.1 Setup

I estimate how events causally effect membership using a synthetic control-like framework. Similar to synthetic control, a counterfactual is created for Oath Keepers' new members using untreated times series. In contrast, the control units are observed in a different unit of analysis than the treated unit.

Suppose an event occurs at time T. The causal effect of new Oath Keepers membership on an event at time t can be represented as:

$$\tau_t = y_t(1) - y_t(0)$$

where $y_t(1)$ is the number of new members joining the Oath Keepers, had an event occurred and $y_t(0)$ is the number of new members in the absence of an event. The research observes

$$y_t = I(t > T)y_t(1) + I(t < T)y_t(0)$$

The goal is to estimate $y_t(0)$ as a function of time series correlated with membership but independent of discounts: $y_t(0) = f(\mathbf{g_t})$ where $\mathbf{g_t} = [g_{1,t}, \dots, g_{N,t}]$ are the Google Trends for similar organizations. The trends capture changes in overall popularity of similar organizations while being unaffected by the Oath Keepers' events.

I estimate the counterfactual for each event independently using the Brodersen et al.

(2015) model, which builds off of Bayesian Structural Time Series (Scott and Varian 2013). The approach does not rely on asymptotic results, a major benefit with a short pre-treatment period, and was designed to identify causal effects using Google Trends data. I assume the following state space framework:

$$f_{\mathbf{v}}(\mathbf{g_t}) = \beta_{0,t} + \sum_{j=1}^{N} \beta_j g_{j,t} + \epsilon_t \qquad \epsilon_t \sim \mathcal{N}(0, \sigma_\epsilon^2) \tag{3}$$

$$\beta_{0,t} = \beta_{0,t-1} + \eta_t \qquad \eta_t \sim \mathcal{N}(0, \sigma_\eta^2) \tag{4}$$

where $\mathbf{v} = \left[\beta_1, \dots, \beta_N, \sigma_\epsilon^2, \sigma_\eta^2\right]$ are the parameters. I include a local-level trend for the intercept.[9]

To avoid overfitting the data, regularization is induced on the coefficients through the Bayesian shrinkage prior slab and spike. The approach induces sparsity in the coefficients similar to the Abadie, Diamond, and Hainmueller (2010) approach without requiring the treated unit to be within the convex hull nor the coefficients to be positive and sum to one. In a standard synthetic control setting, where the control and outcome time series are in the same units, weights outside of the zero to one interval may be viewed as problematic because the estimator is relying on extrapolation. Allowing the weights to be greater than one or less than zero in this paper's setting is both necessary and beneficial because the outcome time series is in a different unit of analysis than the control units meaning there is no reason to impose the convex hull.

Following Brodersen et al. (2015), let $\beta = \{\beta_1, \dots, \beta_N\}$ be the set of coefficients and $\upsilon = \{\upsilon_1, \dots, \upsilon_N\}$, where $\upsilon_j = 1$ if $\beta_j \neq 0$ and $\upsilon_j = 0$ otherwise. Furthermore, define β_υ

[9]This specification is the preset for the `R` package of Brodersen et al. (2015), though the paper discusses a local-linear trend.

as the nonzero elements of β, let Σ_{υ}^{-1} be the rows and columns of Σ^{-1} that correspond to the nonzero elements of υ. Then, the slab and spike prior is formulated as:

$$Pr(\upsilon, \beta, \frac{1}{\sigma_\epsilon^2}) = \Pr(\beta_\upsilon|\upsilon, \sigma_\epsilon^2) Pr(\sigma_\epsilon^2|\upsilon) Pr(\upsilon) \tag{5}$$

The spike portion of the prior is modeled as the product of independent Bernoulli distributions:

$$\prod_{j=1}^{N} \pi_j^{\upsilon_j} (1-\pi_j)^{1-\upsilon_j} \tag{6}$$

I set $\pi_j = .6$ for all j, which corresponds to just over half the predictors being included on average. The slab portion follows the conjugate normal-inverse gamma distribution:

$$\beta_\upsilon|\sigma_\epsilon^2 \sim \mathcal{N}\left(\mathbb{b}_\upsilon, \sigma_\epsilon^2 (\Sigma_\upsilon^{-1})^{-1}\right) \tag{7}$$

$$\frac{1}{\sigma_\epsilon^2} \sim \Gamma\left(.5, .1 \frac{1}{T-1} \sum_{t<T} (y_t - \bar{y}_t)^2\right) \tag{8}$$

The hyperparameters for σ_ϵ^2 are chosen based on the expected R^2 following Brodersen et al. (2015). I set $\mathbb{b}_\upsilon = 0$. Σ^{-1} is the average between Zellner's g-prior and the diagonal elements. Formally, if G is the design matrix, then $\Sigma^{-1} = \frac{1}{T}(.5G^tG + .5diag(G^tG))$. Finally, σ_η^2 is set to a default value of 0.01, a common hyperparameter choice for well behaved times series such as aggregate sales.[10]

[10]The results are robust to setting $\sigma_\eta^2 = 0.1$.

Creating the counterfactual consists of three steps. In the first step, the posterior distribution of the parameters is estimated via Gibbs sampling. The number of iterations is set to 20,000 with 1,000 burn-in iterations. After the burn-in, each draw from the Gibbs sampler is used to predict the missing potential outcome in the post-treatment periods. In the final step, the difference between observed and predicted values is recorded. Each step of the Gibbs sampler creates an estimated treatment effect, generating an empirical posterior distribution.

5.2 Identifying Assumptions

When constructing a counterfactual in this framework, there is a balance between having a long enough pre-treatment to estimate the parameters but not too long such that the plausibility of the data generating process comes into question. Concerns include the relationship between the treated and explanatory times series varying over time, political activity outside the data generating process that could cause structural breaks in the time series, or different regional/national Oath Keepers activity.[11] To mitigate these concerns, I limit my window to two weeks before and after each tactic. After surveying the time periods surrounding the tactics, I failed to identify major political activity or additional Oath Keepers events occurring two weeks prior to each tactic. I relax this restriction in Section 6.3.

Identification in this framework requires the proposed data generating process to be a "good" fit. I investigate this claim by artificially moving the treatment date forward into the pre-treatment window and compare the estimated treatment effect to zero, the true treatment effect in the placebo period.

[11] For example, the Oath Keepers performed a different national event 16 days prior to the Big Sky armed standoff.

Figure 3 artificially moves the date of treatment forward seven days.[12] Seven days are used to fit the counterfactual model and seven days to test it. The grey line with dots is the raw data while the line without dots is the constructed counterfactual with 95% credibility intervals.[13] The first vertical dashed line is the beginning of the placebo test (seven days prior to treatment). Excluding the Flash Discount, these results suggest the estimation approach is accurately capturing the latent factors of Oath Keepers membership and the effect can be interpreted as causal. In the case of the Flash Discount, the estimates should be viewed as suggestive rather than causal.

[Figure 3 about here]

The other concern is the relevance of the control units. If the `Google Trends` data is not contributing to the control units, then the counterfactual estimate collapses to a local-level state space model. Figure 4 plots the inclusion probability and coefficient values. Organizations with missing bars were not used in the counterfactual estimate. The intercept is rarely included, suggesting the counterfatual is not being driven by a local-level model.

[Figure 4 about here]

6 Results

The results are presented for each individual event, then discussed in terms of shifts along the demand function and shifts in the demand function. Figure 5 plots the Oath

[12] Using half of the pre-treatment periods to conduct a placebo-in-time follows from the analysis performed in Abadie, Diamond, and Hainmueller (2014).

[13] A credibility interval is a range of parameters that account for a certain portion of the posterior distribution. In this setting, it is the parameters that correspond to 95% of the posterior distribution of the treatment effect.

Keepers' membership and the constructed counterfactual. As in Figure 3, the grey line with points is the raw Oath Keepers' membership inflow data. The circles are days before the event, the triangles during the event, and squares after the event. The solid pointless line is the constructed counterfactual with the shaded area showing the 95% credibility intervals.

[Figure 5 about here]

The average number of individuals signing up for the Oath Keepers increases during the tactics, except for the NASCAR advertisement. Although the recruitment is in general higher during these periods, there are sporadic days of lower or similar membership. The counterfactual spike during the Constitution Day discount is most likely driven by the Unite the Right rally in Charlottesville, Virginia from August 11 - August 12, 2017.

Table 6 shows the average effect of tactics on the inflow of new members during each tactic. The results are presented as the percent increase in recruits due to the tactic, the average increase per day during the duration of the tactic, and the total increase in new members attributed to the tactic. Excluding the Flash discount and Constitution Day discount, the Oath Keepers recruited an additional 527.98 annual members due to all the discounts which equates to an additional $14,598 from initial signups. Similarly, the cause-related marketing events lead to an additional 1,078 annual members equating to $43,120 additional revenue from initial signups. The NASCAR advertisement campaign caused an average decrease of about eight members per day, effectively balancing out the gains in membership made during the discounts.

[Table 6 about here]

6.1 Shifts Along the Demand Function

The relative effects of the discounts are far greater than the 25% price drop, showing a highly elastic consumer base. In other words, a large portion of the consumer base has a willingness to pay between the discounted price of membership, $30, and the regular price, $40. However, the elasticity is not constant across discounts. Ignoring the Flash discount, it is largest during the Veterans Day discount and relatively constant during Memorial Day and Christmas/New Years discounts. The elasticity for Constitution Day is also similar to Memorial Day and Christmas/New Years if the estimation stops prior to the Unite the Right rally.

The changes in demand between discounts is further investigated by graphing the demand function for each discount. I estimate linear demand functions for all the discounts except the Flash Discount using the average number of new signups per day during the discount and the estimated counterfactual number of new signups. In practice, this equates to drawing a line between the average number of new signups when the price is $30 during the discounts and the estimated number of new signups had the price been $40 during the discounts. Figure 6 plots the demand curves for each discount between $30 and $40.

[Figure 6 about here]

The demand for Oath Keepers membership was most price sensitive during the Veteran's Day discount in 2014. Between 2014 and 2017-2018, demand became less price sensitive and shifted inwards. This shows that the potential membership base for the Oath Keepers was larger because of more marginal consumers in 2014 compared to 2017-2018. Additionally, the demand curves for the Christmas/New Years and Memorial Day

discounts are relatively similar to one another, along with Constitution Day when the analysis stops prior to the Unite The Right rally.

The surplus gained by new consumers who only join because of the discount, referred to as *submarginal members*, plummets after 2014. During the Veterans Day discount in 2014, submarginal members gained $115 per day. However, this drops to near zero during the Constitution Day discount of 2017, $12 during Christmas and New Years 2017, and $19 during Memorial Day 2018.

Together, the decrease in submarginal surplus and increasing inelastic demand in the late 2010s show the Oath Keepers' struggled to attract the submarginal consumers. This suggests that the potential consumer base for the Oath Keepers stabilized to be smaller with higher willingness to pay.

6.2 Shifts in the Demand Function

Unlike the discounts, the cause-related marketing and sports sponsorship are shifts in the demand curve. The cause-related marketing recruits more individuals during the events than any individual discount. Somewhat surprisingly, the armed standoffs lead to temporary shifts in the demand curve. The inflow of new members returns to pre-event levels at the conclusion of the armed standoffs. Conversely, the NASCAR sponsorship caused persistent decreases in the inflow of new members.

Both event types can be rationalized through fundamentals of marketing (Minnesota Libraries Publishing 2015, chap. 12.1). The callout events and attendance at the inauguration are examples of cause-related marketing. This is when companies sponsor specific events, like a company wide community service day, or raise money for a charity. In the case of the Oath Keepers, they support conflicts with federal officials. The

benefit of cause-related marketing is that it signals the ideology of an organization. If potential members value being in organizations that embody certain ideologies, then cause-related marketing can further publicize those behaviors serving as a signal. This is why armed government standoffs, a strong signal of specific tenets the group wants to associate with, are successful in recruiting new members during the events. Similar financial incentives have been observed among terrorist organizations cryptocurrency funds after highly visible terrorist attacks (AMIRAM, JØRGENSEN, and RABETTI 2022). Extremist politicians have also leveraged politically disruptive events, such as government shutdowns, to increase donations (Oklobdzija 2017).

Sponsoring a NASCAR falls under the category of sports sponsorship (Minnesota Libraries Publishing 2015, chap. 12.1). The purpose of sports sponsorships is to increase name recognition, in line with the *informative* view of advertising (Bagwell 2007, chap. 2.2.2). Unlike cause-related marketing, this approach does not emphasize an organization's ideology. This approach is most successful in increasing name recognition, potentially normalizing the organization to a larger consumer base. The NASCAR's sponsorship decreasing the inflow of new members suggests that individuals join the Oath Keepers ideological reasons during this time period. More so, participating in activities that may be viewed as ideological increases the inflow of new members. This is further supported by callout events bringing in more new members than discounts and traditional advertising.

The findings suggest that the inflow of new Oath Keepers is highly elastic and reacts positively to demonstrations of ideology, such as callout events. The large increases in new members from the callout events provide an alternative explanation for ostensibly ideological activities: The Oath Keepers can generate more profit from violent extremist activity than membership discounts and traditional advertisement combined.

6.3 Robustness Tests

Pre-treatment length

My preferred specification limits the pre-treatment to two weeks to mitigate the risk of contamination in the construction of the counterfactual. Specifically, two weeks ensures there are no other Oath Keepers national events nor major political announcements occurring during the pre-treatment window. For example, there appears to be a structural break inflow of new Oath Keepers four weeks prior to the Memorial Day discount[14] and a different callout event occurred 16 days prior to the Big Sky callout. As a robustness check, I extend the pre-treatment window to three and four weeks to investigate the sensitivity of the results. A table of treatment effects is provided in the online appendix.

The increased pre-treatment period suggests that the Constitution Day discount did lead to a positive significant increase in new membership, but is masked by the Unite the Right rally. The treatment effect for the Constitution Day discount using only the days leading up to the Unite the Right rally is on average 4.5 new members per day. The increased pre-treatment period had little to no effect on all other tactics.

Alternative estimation strategies

I compare the findings to the following alternative synthetic control estimation strategies: Ferman and Pinto (2021), C. Carvalho, Masini, and Medeiros (2018), Xu (2017), and Klinenberg (2022). Ferman and Pinto (2021) restricts the weights to be nonnegative and sum to one, as first suggested by Abadie and Gardeazabal (2003), with the addition of an intercept. C. Carvalho, Masini, and Medeiros (2018) and Xu (2017) both create a counterfactual of treated units to estimate the treatment effect with inference derived

[14] See the online appendix for the graph.

from asymptotic results, not prior distributions. Finally, Klinenberg (2022) builds off of Brodersen et al. (2015) by allowing for time varying parameters in a non-centered state space framework. Additional details are provided in the time-varying robustness subsection below.

I compare the models based on mean squared forecast error using the following placebo specification: I fit the models on days 8-14 prior to treatment, then compare the mean squared forecast error for days one to seven.[15]

[Table 7 about here]

Table 7 presents the mean squared forecast error for the seven days leading up to a tactic. The main specification and C. Carvalho, Masini, and Medeiros (2018) have the smallest mean squared forecast errors, and tend to be similar to one another. Ferman and Pinto (2021) and Xu (2017) have a large forecast error in comparison to the other models. Klinenberg (2022) creating estimates with similar MSFE as the preferred specification suggests that the additional flexibility of the model will lead to more model uncertainty, as seen in wider credibility intervals, with negligible reductions in bias. Based on this, I rerun the analysis for C. Carvalho, Masini, and Medeiros (2018). The findings are similar to the main specification across all events. See the appendix for further details.

Endogeneity of tactics

Another concern may be that discounts occur during already popular membership recruitment periods, callout events are strategically planned around seasonal trends, and NASCAR happens to occur during a time when individuals have a lower propensity for membership. I investigate these concerns by rerunning the synthetic control estimation

[15]The results hold fitting the models on weeks two and three (days 8-21) and weeks two through four (days 8-28) prior to the tactic beginning. See the appendix for further details.

for all tactics between 2013 and 2018. A counterfactual for Veteran's Day discount, Constitution Day discount, and Big Sky callout in 2018 cannot be calculated because no new Oath Keepers joined in the pre-treatment period.

[Table 8 about here]

Table 8 displays the treatment effects for the placebo years. In general, the treatment effects are small and insignificant. None of the placebo years are significant for Veteran's Day and the Big Sky callout. One placebo test is significant for Bundy Ranch, but the point estimate is far smaller than the actual treatment effect. The placebo effects for the Christmas discount are not consistently positive nor negative suggesting there was not a seasonal component driving membership. Aside from Barack Obama's presidential inauguration, the placebo results for DefendJ20 are smaller than the estimated effect and vary in direction. In conclusion, I fail to find strong evidence of seasonal endogeneity occurring during the time of the discounts.

Time-varying relationship between Oath Keepers' membership and Google Trends

The preferred specification models the relationship between the Google Trends and Oath Keepers membership inflow data as time invariant. While relationship between the times series may change over time, the method in which Brodersen et al. (2015) allows for time varying parameters leads to overspecification.

To investigate the plausibility of a time invariant relationship between the time series, I implement the method proposed in Klinenberg (2022). Klinenberg (2022) decomposes the time varying parameter into a time-varying and time invariant component following Bitto and Frühwirth-Schnatter (2019).[16] The relationships between time series are thus

[16]Technically, β_j is replaced by $\beta_j + \sqrt{\theta}_j \tilde{\beta}_{j,t}$ where $\tilde{\beta}_{j,t} = \tilde{\beta}_{j,t-1} + \eta_j$ and $\eta_j \sim \mathcal{N}(0,1)$. See Klinenberg (2022) for more details.

allowed to be time varying with a nonzero mean, time-invariant with a nonzero mean, time varying with zero mean, and time-invariant with zero mean. While Klinenberg (2022) does improve on Brodersen et al. (2015) specification with time varying parameters, the additional flexibility of the model produces more uncertainty in the posterior estimates compared to a time-invariant model when the true data generating process does not include time varying parameters. Therefore, this model should only be used if the researcher suspects the true data generating process does include time varying relationships.

I investigate the plausibility of time varying parameters by calculating Klinenberg (2022) and plotting the parameters, with graphs for two, three, and four week pre-treatment periods provided in the appendix. Under this model specification, I fail to find evidence of a statistically significant time varying parameter, suggesting that a time invariant model is a plausible approximation for this setting.

Additional robustness tests

I rerun the analysis including monthly and lifetime membership signups. The results are statistically and substantively similar. The findings are presented in the appendix.

7 Heterogeneity Analysis

Does the efficacy of recruitment tactics in recruitment vary across county level characteristics? I answer this by comparing the inflow of Oath Keepers between counties in the top 25% of a characteristic to counties in the bottom 25% of a characteristic. For income inequality, across-county inequality is measured using the median household income and within-county income inequality using the income inequality metric provided by the Federal Reserve. County level demographic characteristics include the combined

percent of votes for Republican and Libertarian presidential candidates in a county, percent of a county that is rural, and percent of a county that is white.

The change in recruitment between the bottom and top quartile of a characteristic and during each tactic is measured following a two-way fixed effects specification:

$$z_{i,t} = \delta D_{i,t} + \gamma_t + \gamma_i + \epsilon_i \tag{9}$$

where $z_{i,t}$ are the number of Oath Keepers to join per 100,000 in county i on day t. $D_{i,t}$ is an indicator equal to one if county i is in the top 25% and t is after the start of the event. Each event is estimated separately and standard errors are clustered at the county level. γ_t and γ_i are the time and county fixed effects. δ estimates the differential effects of an event between the top 25% counties and bottom 25% counties based on a county metric, meaning counties in the middle quantiles are dropped from the analysis. Assuming a linear demand function for each quartile, δ can be interpreted as the difference in slopes of demand between the quartiles or a difference in shifts. If $\delta > 0$ during a discount, then the top quartile responds more positively to a decrease in price compared to the bottom quartile. Similarly, $\delta > 0$ during a callout event or advertisement means that the demand for members has a larger positive shift in the top quartile compared to the bottom. A derivation is provided in the appendix.

Borrowing from the difference-in-differences terminology, the "pre-period" is the fourteen days leading up to the start of an event while the "post-period" is the duration of the event. The "treated" units in this setting are counties that are in the top quartile and the "control" are counties in the bottom quartile. The analysis does not include days after the events end. I fail to find evidence of diverging trends in the pre-event

periods. Based on this, I assume the differences in recruitment rates during the events are attributed to the county-level characteristics. The event studies are supplied in the online appendix.

Table 9 presents the regression estimates weighted by population. Panel A estimates the differential effect of events between counties with high and low income inequality ratios. Panel B does the same type of comparison using a county's median household income. Panel C presents the percent of a county that voted Republican/Libertarian in the last election, panels D presents results for the percent rural of a county, and panel E the percent white of a county.

[Table 9 about here]

7.1 Income Inequality

First, I test whether the slope in demand differs across county-level income inequality. I fail to find evidence that within-county or across-county income inequality causes increases in the slope. Rather, demand is less price sensitive in the most income unequal counties compared to the least. The most income equal counties gained 0.009 more new Oath Keepers during the Veteran's Day discount, or an increase of over 100% from the baseline mean, compared to the most unequal counties. Across county income inequality, presented in Panel B, generally does not affect recruitment. While I fail to find evidence of demand curves differing in slope based on inter-county inequality, only the Constitution Day Discount and Flash Discount are precisely estimated. These findings suggest that both within and across county income inequality do not cause the demand curve to be more price sensitive. If anything, the demand in counties with the most intra-county income inequality is less price sensitive.

I next test if events cause differential shifts in demand based on income inequality. Counties with the most within-county income inequality had smaller shifts in demand compared to counties with the least amount of within-county income inequality during Bundy Ranch. The effect became less pronounced during the Big Sky callout event and DefendJ20, and there was no difference during the NASCAR sponsorship. Across county income inequality is insignificant during all callout events and the NASCAR sponsorship, although noisily estimated. This shows that the most income equal counties experienced larger shifts in demand during callouts than the most income unequal counties.

7.2 Demographic Characteristics

Demand in counties with the highest share of Republican/Libertarian votes is more price sensitive and responsive to callouts and discounts compared to demand in counties with the lowest. The point estimates tend to be positive and statistically significant. The callout events caused more new members to join in more Republican/Libertarian counties. The same is generally true for the discounts, with Memorial Day 2018 being insignificant. In summary, the demand for membership in counties with the most Republican/Libertarian votes is more price sensitive compared to counties with the smallest percent of votes.

There is suggestive evidence demand is more price sensitive in more rural areas. The coefficients of interest (δ) tend to be positive during the discounts, though noisily estimated. Conversely, the effects of the callout events are precisely estimated with more rural counties receiving more new Oath Keepers during Bundy Ranch but not Big Sky. Demand for membership increased more in rural areas during Bundy Ranch, but not during Big Sky.

Finally, demand varies by a county's percentage of white population in the early years only. Demand in whiter counties is more responsive to price during the Veteran's Day discount, but not during all other discounts. Similarly, Bundy Ranch shifted demand more in whiter counties, but Big Sky and the NASCAR sponsorship did not. One reason may be that the organization started in relatively white counties and was able to branch out.

In conclusion, the demand for Oath Keepers membership was more price sensitive and responded to events more strongly in counties with more Republican/Libertarian voters. While demand initially responded stronger in more rural and white counties, the differences disappear in later events. This suggests that the composition of the consumer base is dynamic over the years.

8 Conclusion

The resurgence of domestic violent extremism across Western nations has become a significant area of concern among academic scholars and policy makers alike. A critical step to crafting policies to mitigate their harmful activity is to understand how various recruitment tactics affect demand for membership. Drawing upon leaked membership data on the Oath Keepers, I estimate the effects of advertising, membership discounts, and sponsored events on demand.

The demand for Oath Keepers membership is highly elastic and responds strongly to armed standoffs. However, the armed standoffs only had temporary effects: the demand curve shifted back to pre-event levels within the two weeks following cause-related marketing events. Surprisingly, traditional advertising had a persistent negative effect on demand. While sponsoring a NASCAR led to reductions in membership, the

increased exposure may have normalized the Oath Keepers to a larger audience, leading to more members joining post-sponsorship. Further study is left for future research.

The relationship between county-level income inequality and recruitment by a domestic violent extremist organization is dynamic. In early events, counties with less income inequality had higher rates of recruitment, but this difference was not significant in later events. In contrast, the percentage of voters who supported Republican or Libertarian candidates was positively associated with more price sensitive demand curves and larger shifts in demand compared to counties with the smallest vote share. Together, these findings provide new insights into common business practices used to sell violent extremism.

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9 Tables and Graphs

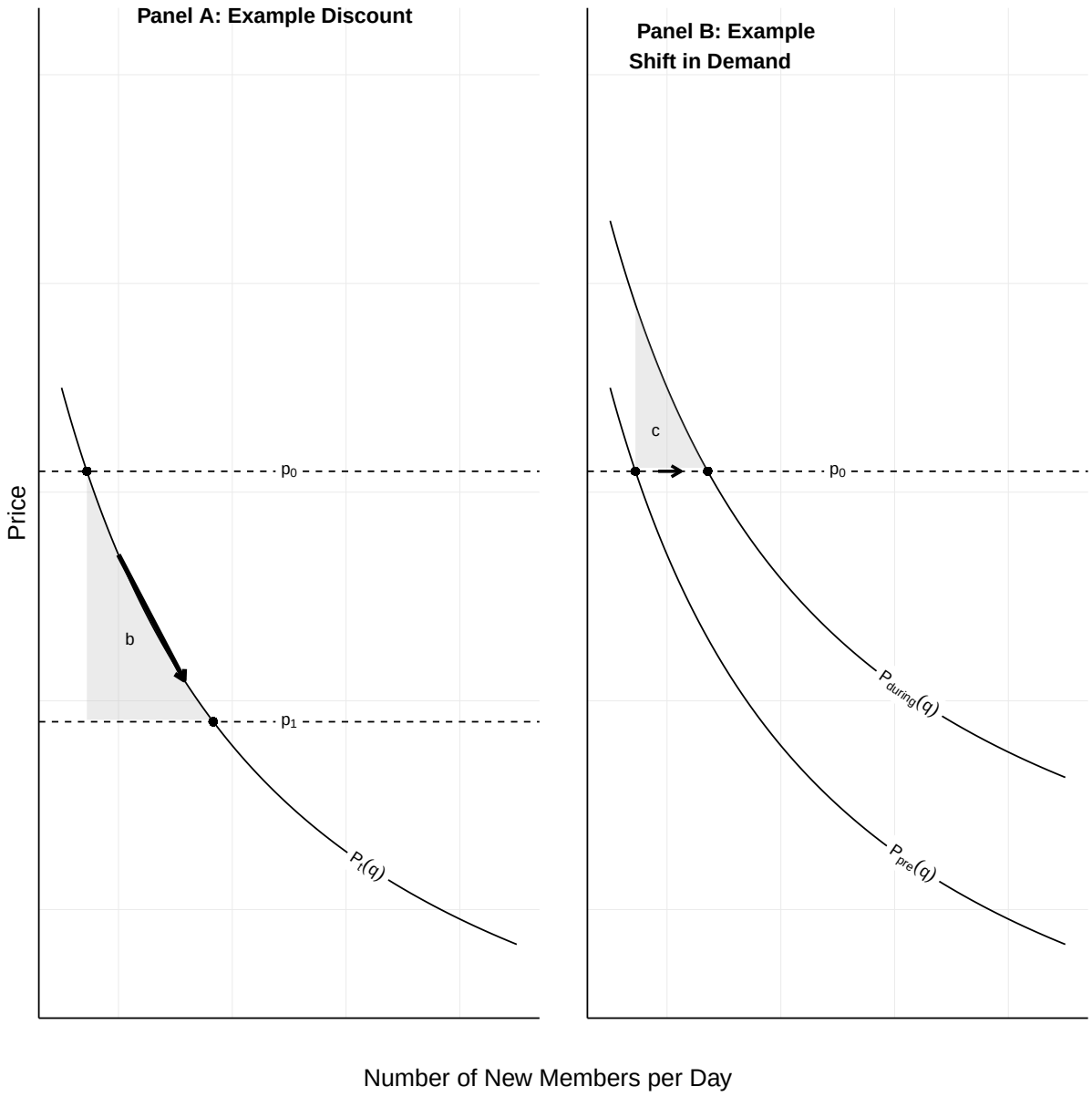

Figure 1: Example effects of discounts and callouts/ad campaigns on demand. Panel A shows the effect of a discount. Panel B shows the effect of an armed callout or advertising campaign on demand. The shaded areas are consumer surplus enjoyed by the new members who joined because of the discount/event.

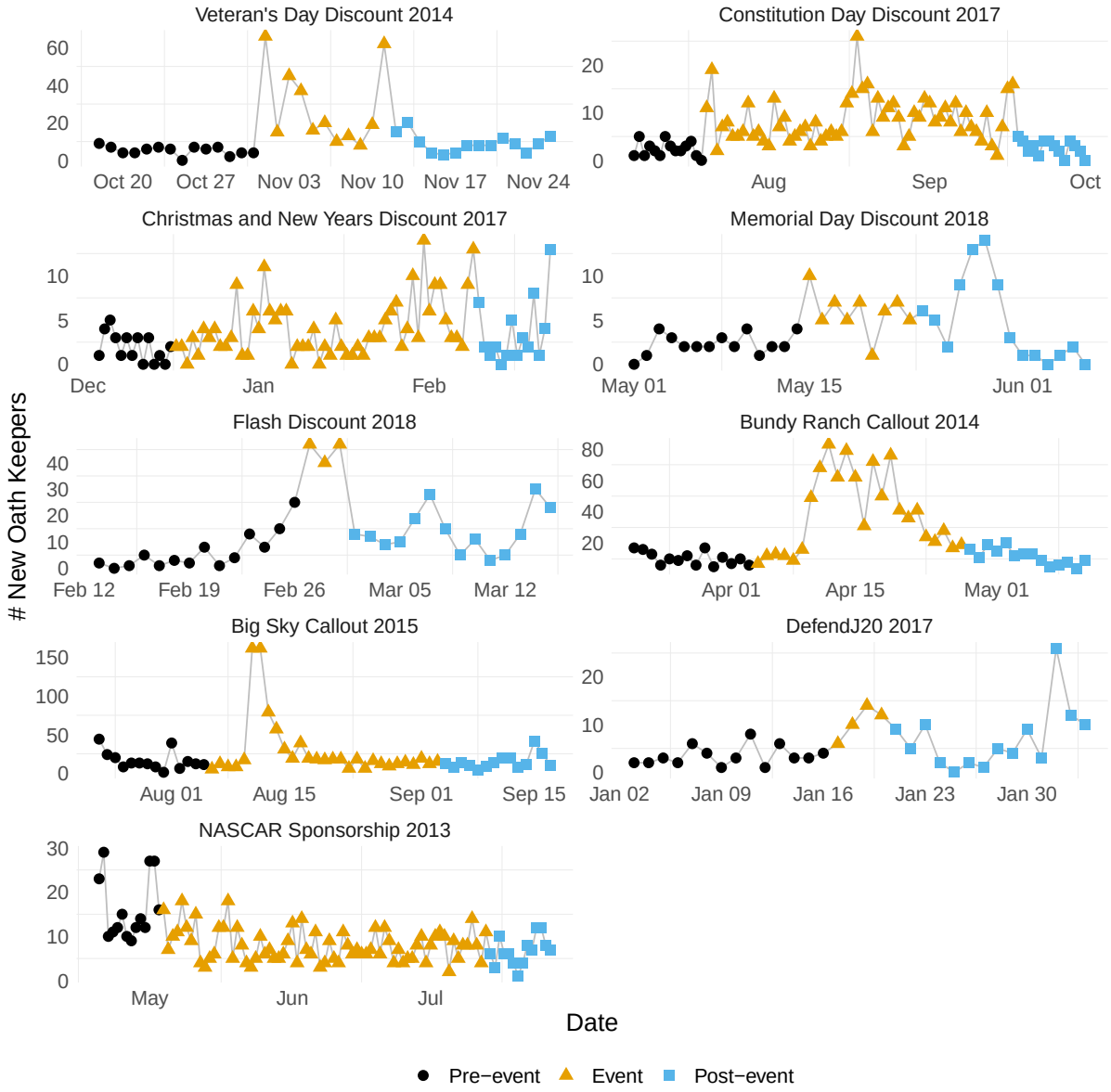

Figure 2: Oath Keepers events. The graphs depict the number of new sign-ups per day. Each pre/post period is 14 days long with the exception of the flash discount post period. Notice the axes differ for each panel.

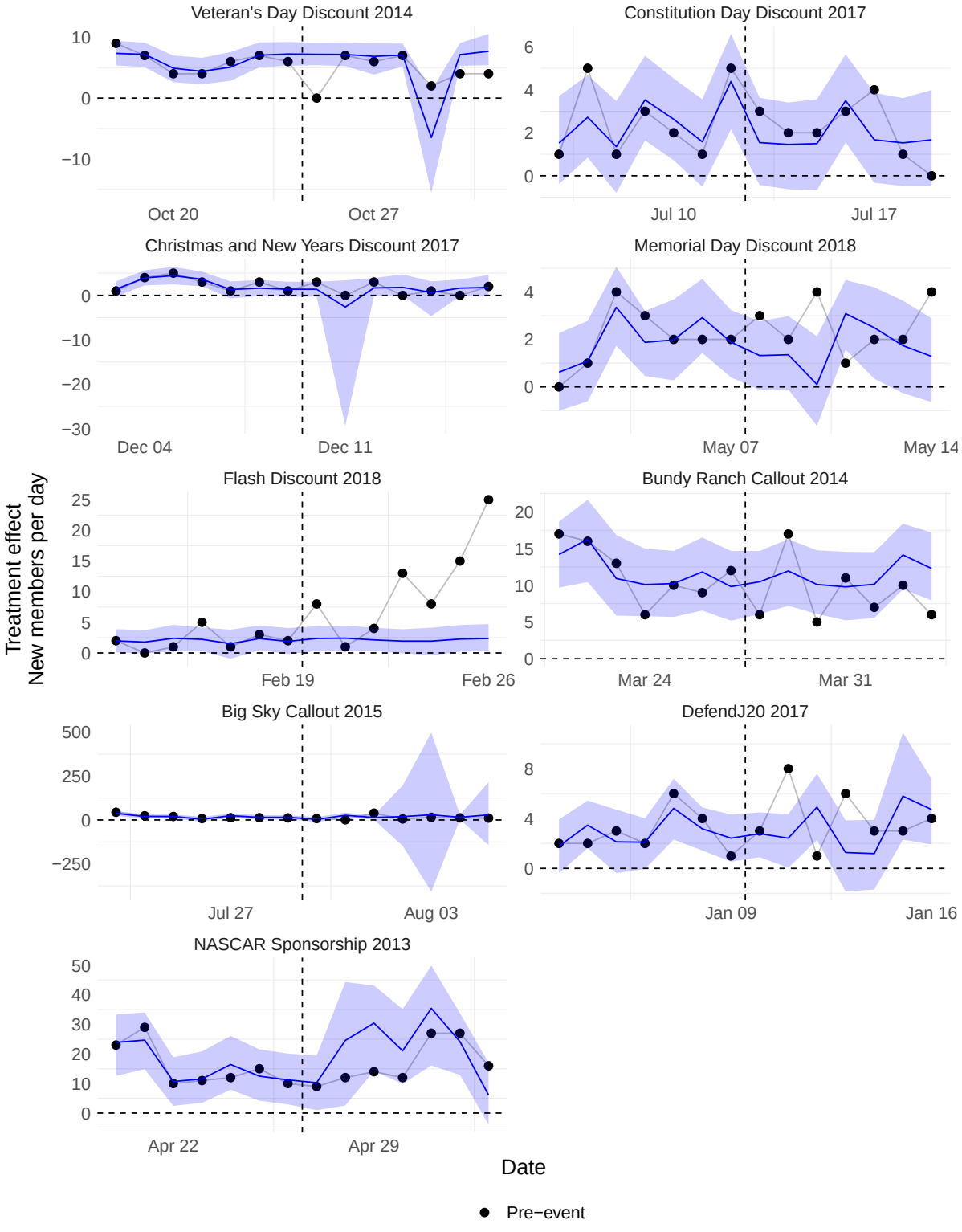

Figure 3: Placebo test of Oath Keepers discounts on new membership. The dashed lines show the beginning and end of the placebo period. Window limited to pre-discount. The blue line is the constructed counterfactual with 95% credibility intervals.

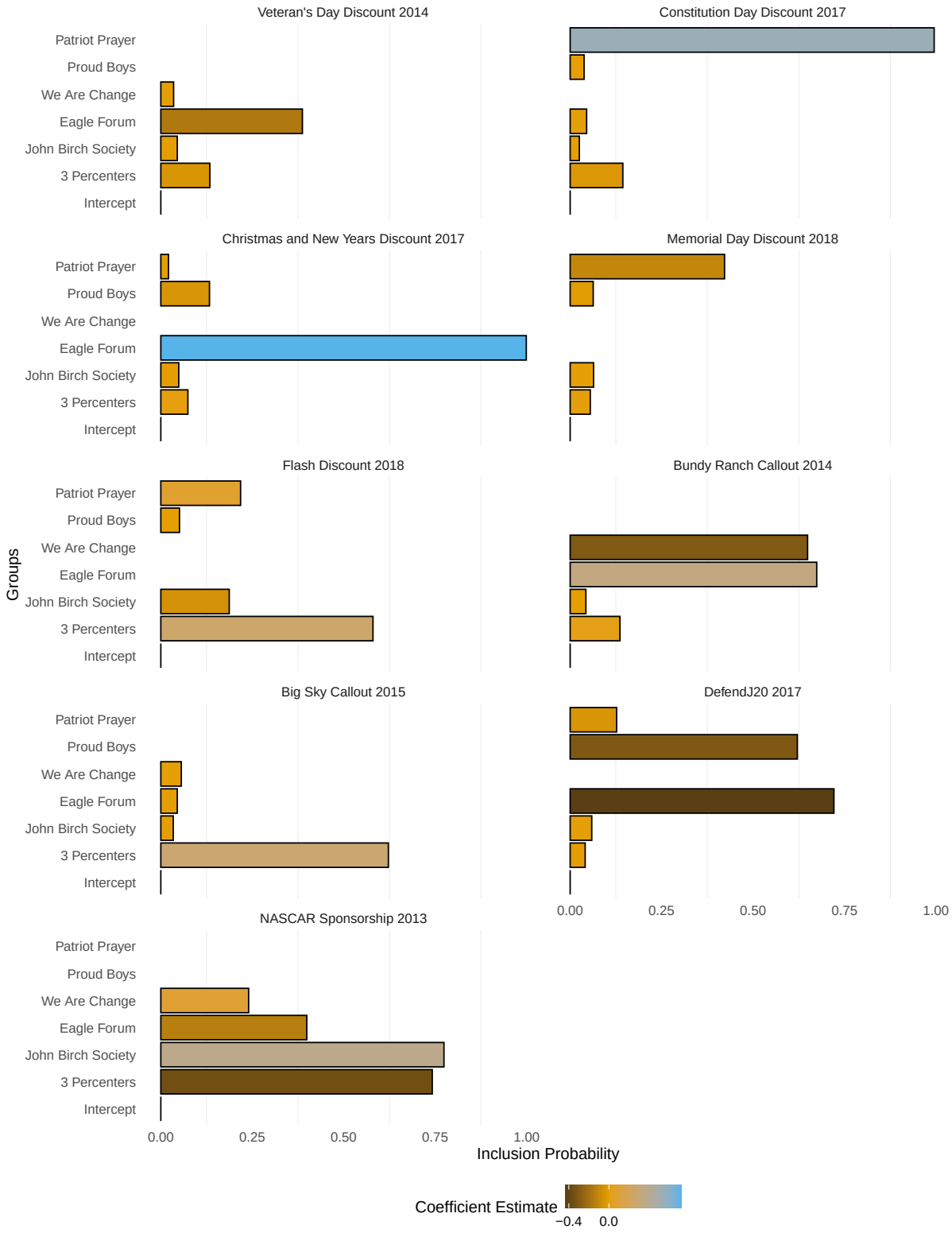

Figure 4: Contribution of control units to each counterfactual. The bar shows the percent of monte carlo simulations the control unit is included in the analysis. The color shows the average coefficient value, given the control unit is included in the analysis.

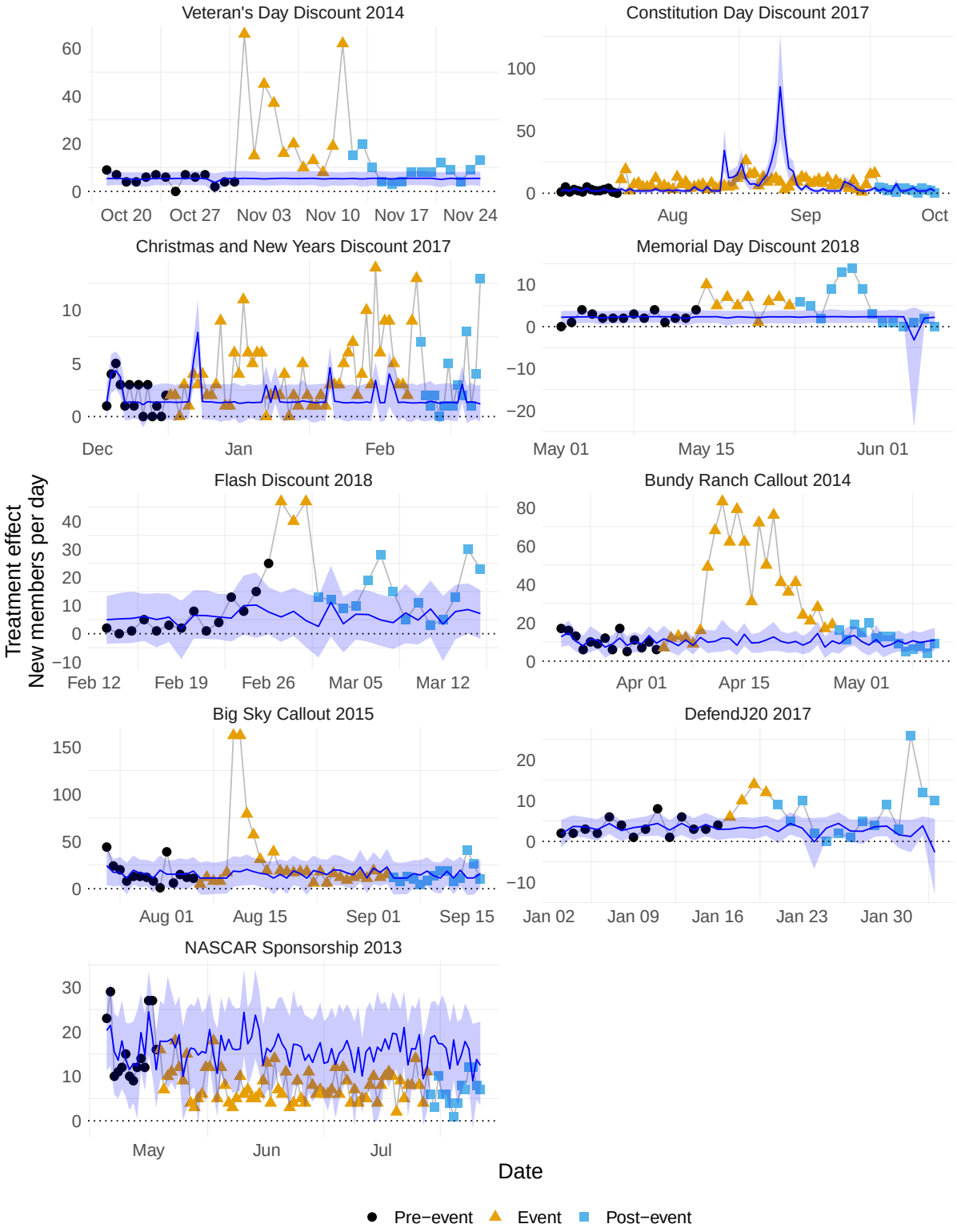

Figure 5: Effect of Oath Keepers tactics on new membership. Blue line is the constructed counterfactual with 95% credibility intervals. Notice the axes differ for each panel.

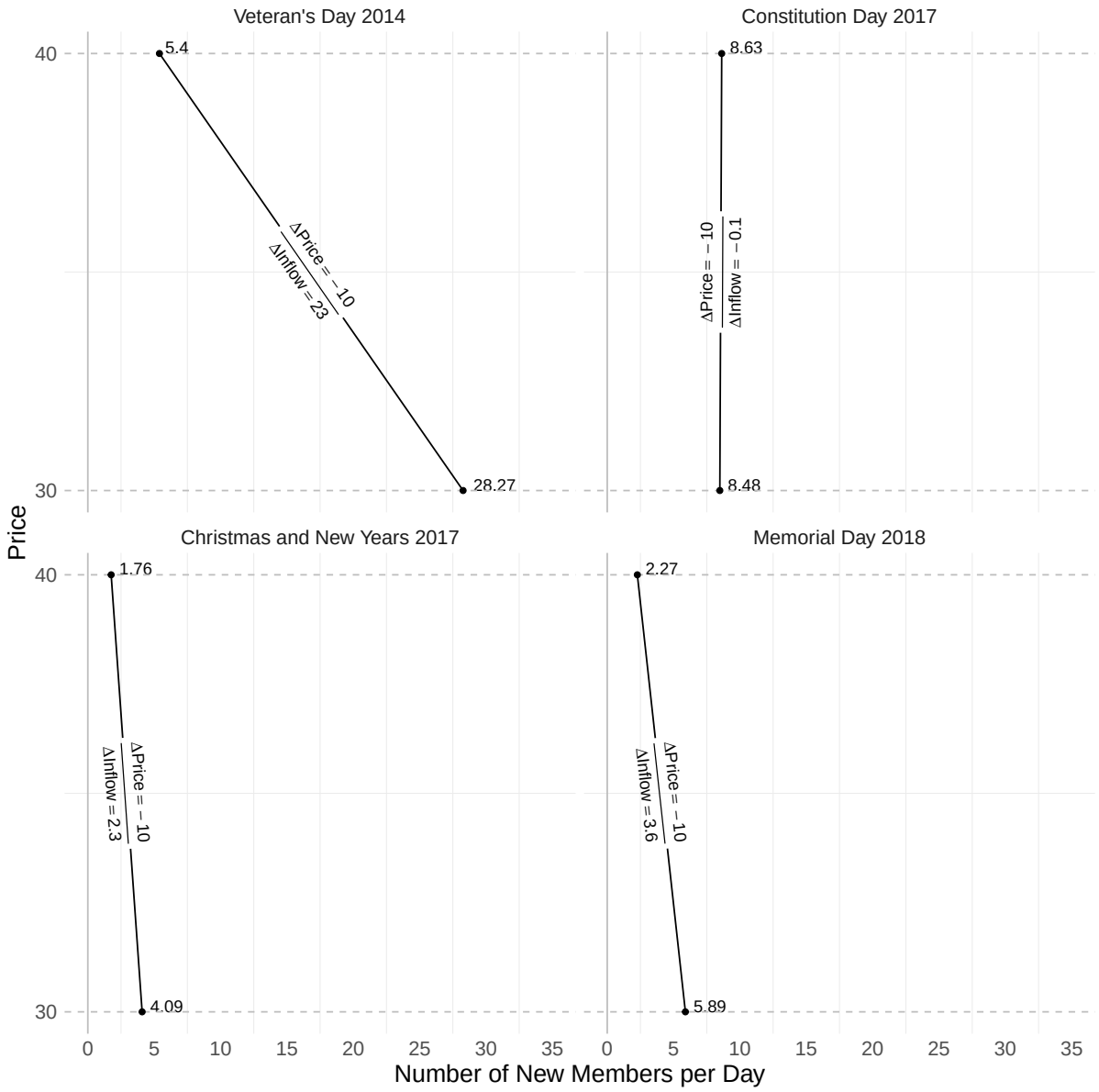

Figure 6: Estimated linear demand functions during each discount. Linear demand functions are estimated using the average number of new signups per day during the discount (p=$30) and the estimated number of new signups during the same time period had the discount never occurred (p=$40). The shaded area highlights the additional surplus for the submarginal consumer - those who only join during the discount. The Flash discount is omitted due to the estimates being suggestive rather than causal.

Table 1: Oath Keepers tactics.

	Start Date	End Date	Notes
Membership Discounts			
Veteran's Day Discount	2014-11-01	2014-11-11	25% membership discount from $40 to $29.
Constitution Day Discount	2017-07-20	2017-09-17	25% membership discount from $40 to $30 and gun giveaway.
Christmas/New Years Discount	2017-12-17	2018-02-09	25% membership discount from $40 to $29.95 and gun giveaway.
Flash Discount	2018-02-27	2018-03-01	25% membership discount from $40 to $29.95 and gun giveaway.
Memorial Day Discount	2018-05-15	2018-05-23	25% membership discount from $40 to $29.95 and gun giveaway.
Cause-Related Marketing			
Bundy Ranch	2014-04-04	2014-04-27	The event takes place at Bundy Ranch in Clark County, Nevada. It begins with the first arrest and ends when the Oath Keepers left due to fears of a drone strike.

Table 1: Oath Keepers tactics. *(continued)*

	Start Date	End Date	Notes
Big Sky	2015-08-06	2015-09-03	The event takes place at White Hope mine in Lincoln, Montana. It begins with the official callout video and ends when the Oath Keepers began another callout.
DefendJ20	2017-01-17	2017-01-20	The event requests individuals to travel to Washington D.C. and serve as unofficial security for the presidential inaugaration. The event starts with the call to action and ends with the inaugaration.
Sports Sponsorship			
NASCAR Sponsorship	2013-05-04	2013-07-13	Oath Keepers sponsor NASCAR driver Jeffrey Earnhardt for four races in the Xfinity Series with their logo on the hood of the car.

Note:

The tactics studied in the paper. The first column is the name of the event, grouped by tactic type. The second and third columns are the start and stop dates for the events identified through the internal forum. The final column is a brief description of the event.

Table 2: Event study of Oath Keepers' events.

	Discounts					Cause-Related Marketing			Advertisement
	Veteran's Day 2014	Constitution Day 2017	Christmas/New Years 2017	Memorial Day 2018	Flash 2018	Bundy Ranch 2014	Big Sky 2015	DefendJ20 2017	NASCAR 2013
Intercept	5.214***	2.357***	1.929***	2.286***	6.286**	10.357***	16.143***	3.429***	16.214***
	(0.555)	(0.270)	(0.459)	(0.280)	(2.517)	(1.124)	(3.168)	(0.369)	(2.226)
I(Event)	23.058***	6.126***	2.162***	3.603***	38.381***	28.310***	12.788	7.071***	−8.214***
	(6.553)	(0.855)	(0.743)	(0.672)	(2.621)	(7.717)	(11.085)	(1.538)	(2.253)
I(Post-Event)	3.857**	0.286	1.643	2.429	7.714**	1.071	−1.571	3.571	−9.500***
	(1.660)	(0.437)	(1.074)	(1.900)	(3.675)	(2.210)	(4.167)	(2.213)	(2.483)
Num.Obs.	39	88	83	37	31	52	57	32	99
Std.Errors	Newey-West (L=2)	Newey-West (L=3)	Newey-West (L=3)	Newey-West (L=2)	Newey-West (L=2)	Newey-West (L=2)	Newey-West (L=2)	Newey-West (L=2)	Newey-West (L=3)
Pr(I(Event)=I(Post-Event))	<.01	<.01	0.64	0.56	<.01	<.01	0.19	0.18	0.29

* p < 0.1, ** p < 0.05, *** p < 0.01

Note:

Event studies are run separately using two weeks before the start of an event and two weeks after the end of an event as pre and post periods. The intercept is the average number of Oath Keepers signups per day in the two weeks leading up to the event. Pr(I(Event)=I(Post-Event)) compares if the average inflow of new members during an event differs from the average inflow of new members in the two weeks following an event. Additional specifications, including appearances on InfoWars and time trends, are provided in the appendix.

Table 3: Donor Pool per tactic.

	3 Percenters	John Birch Society	Eagle Forum	We Are Change	Proud Boys	Patriot Prayer
Membership 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		

Note:
The organizations used to construct a counterfactual for each event. Data used in this analysis is from Google Trends. All tactics by organization Google Trends are exported independently. An X signifies that an organization is included in the donor pool for the event. Organizations are omitted if they were not yet created or stopped operating at previous levels.

Table 4: Descriptive statistics of demographic and economic indicators by county.

	Discounts					Cause-Related Marketing			Sports Sponsorship
	Veteran's Day 2014	Constitution Day 2017	Christmas/New Years 2017	Memorial Day 2018	Flash 2018	Bundy Ranch 2014	Big Sky 2015	DefendJ20 2017	NASCAR 2013
Panel A: Economic inequality									
Lower Quartile Mean	9.81	10.01	10.01	10.02	10.02	9.81	9.94	10.01	9.63
Upper Quartile Mean	17.45	18.38	18.38	18.64	18.64	17.45	17.88	18.38	17.17
Difference	7.63***	8.37***	8.37***	8.62***	8.62***	7.63***	7.94***	8.37***	7.54***
	(0.13)	(0.18)	(0.18)	(0.21)	(0.21)	(0.13)	(0.15)	(0.18)	(0.13)
Panel B: Median household income (USD)									
Lower Quartile Mean	$34,421.72	$37,228.23	$37,228.23	$38,532.97	$38,532.97	$34,421.72	$35,652.06	$37,228.23	$33,875.55
Upper Quartile Mean	$63,095.97	$68,982.19	$68,982.19	$71,147.76	$71,147.76	$63,095.97	$64,915.41	$68,982.19	$61,415.06
Difference	$28,674.25***	$31,753.96***	$31,753.96***	$32,614.79***	$32,614.79***	$28,674.25***	$29,263.35***	$31,753.96***	$27,539.51***
	($414.65)	($475.26)	($475.26)	($489.11)	($489.11)	($414.65)	($423.66)	($475.26)	($400.87)
Panel C: Percent voted Republican/Libertarian in last presidential election									
Lower Quartile Mean	39.59	41.19	41.19	41.19	41.19	39.59	39.59	41.19	39.59
Upper Quartile Mean	77.25	80.29	80.29	80.29	80.29	77.25	77.25	80.29	77.25
Difference	37.65***	39.1***	39.1***	39.1***	39.1***	37.65***	37.65***	39.1***	37.65***
	(0.37)	(0.4)	(0.4)	(0.4)	(0.4)	(0.37)	(0.37)	(0.4)	(0.37)
Panel D: Percent rural									
Lower Quartile Mean	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
Upper Quartile Mean	99.17	99.17	99.17	99.17	99.17	99.17	99.17	99.17	99.17
Difference	82.77***	82.77***	82.77***	82.77***	82.77***	82.77***	82.77***	82.77***	82.77***
	(0.38)	(0.38)	(0.38)	(0.38)	(0.38)	(0.38)	(0.38)	(0.38)	(0.38)
Panel E: Percent white									
Lower Quartile Mean	59.6	59	59	58.79	58.79	59.6	59.59	59	59.75
Upper Quartile Mean	97.13	96.85	96.85	96.74	96.74	97.13	97.01	96.85	97.25
Difference	37.53***	37.85***	37.85***	37.95***	37.95***	37.53***	37.41***	37.85***	37.5***
	(0.55)	(0.54)	(0.54)	(0.54)	(0.54)	(0.55)	(0.53)	(0.54)	(0.55)

Note:

* p<0.1, ** p<0.05, *** p<0.01

All summary statistics are at the county-event level. Median household income is in USD for the given year. Economic inequality is measured as the average top quintile of income for a county divided by the average bottom quintile of income for a county. Percent voted Republican/Libertarian refers to the percent of a county that voted for either party in the most previous presidential election. Percent rural refers to the percent of a county's population that lives in a rural area. Lower Quantile Mean is the average value of counties in the bottom quartile based on the specified characteristic. Similarly, Upper Quantile Mean is the average value of counties in the upper quartile based on the specified characteristic. Standard error is provided below the difference.

Table 5: Relationships between Oath Keepers signups and county level characteristics.

	(1)	(2)	(3)
Income Inequality	−0.272***		−0.656***
	(0.065)		(0.096)
Median Income	−0.000 000 5***		−0.000 003***
	(0.000 000 2)		(0.000 000 6)
Percent Libertarian/Republican	0.134***	0.168***	
	(0.018)	(0.020)	
Percent White	0.079***	0.103***	
	(0.020)	(0.019)	
Percent Population Rural	0.041***	0.038***	
	(0.011)	(0.011)	
Intercept	3.336*	−4.190***	22.985***
	(1.994)	(1.017)	(1.397)
Number Counties	2946	2951	2946
R2	0.216	0.207	0.134
Std.Errors	Heteroskedasticity-robust	Heteroskedasticity-robust	Heteroskedasticity-robust
Average Oath Keepers per 100,000 per County	17.11	17.11	17.11

* p < 0.1, ** p < 0.05, *** p < 0.01

Note:
The outcome is total Oath Keepers signup per county per 100,000 per county. All explanatory variables draw from 2018. Regressions are weighted by county population in 2018. Number of counties varies by the availability of demographic characteristics.

Table 6: Effect of tactics on Oath Keepers' recruitment.

	Relative Effect (%)	Average Effect	Cumulative Effect
Membership Discounts			
Veteran's Day Discount 2014	430.8	22.88	251.65
	[330.34, 570.2]	[21.7, 24.05]	[238.73, 264.6]
Constitution Day Discount 2017	3.6	-0.14	-8.5
	[-29.47, 58.97]	[-3.55, 3.15]	[-212.71, 188.8]
Christmas and New Years Discount 2017	137.49	2.33	128.32
	[80.27, 229.84]	[1.82, 2.85]	[100.19, 156.79]
Memorial Day Discount 2018	166.65	3.62	32.59
	[105.94, 260.63]	[3.03, 4.26]	[27.26, 38.3]
Flash Discount 2018	863.21	38.47	115.42
	[236.24, 4108.07]	[32.69, 44.24]	[98.08, 132.72]
Cause-Related Marketing			
Bundy Ranch Callout 2014	274.44	28.21	677.1
	[208.48, 350.19]	[26.13, 30.08]	[627.17, 721.86]
Big Sky Callout 2015	84.58	12.9	374.14
	[38.34, 152.71]	[8.02, 17.48]	[232.5, 507]
DefendJ20 2017	228.04	7.12	28.48
	[119.82, 441.98]	[5.72, 8.56]	[22.89, 34.25]
Sports Sponsorship			
NASCAR Sponsorship 2013	-49.64	-8.11	-576.13
	[-59.49, -35.46]	[-11.75, -4.39]	[-834, -312.02]

Note:
The relative effect is in terms of percent change. The average effect is the average number of new Oath Keepers per day due to the discount during the discount while the cumulative effect is the total number of new Oath Keepers due to the discount during the discount. Brackets are 95% credibility intervals. The placebo test for the Flash discount suggests the estimated counterfactual did not accurately approximate the underlying data generating process. The results for the Flash discount should be interperted as suggested, not causal.

Table 7: 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)
Membership Discounts					
Veteran's Day Discount 2014	21.1	1393.9	9.4	775.2	17.1
Constitution Day Discount 2017	1.6	3.4	1.7	24.9	3.6
Christmas and New Years Discount 2017	2.5	866.3	2.8	80.0	3.6
Memorial Day Discount 2018	4.3	7.4	1.4	7.9	6.7
Flash Discount 2018	124.5	91.3	128.0	83.1	81.5
Cause-Related Marketing					
Bundy Ranch Callout 2014	20.0	153.4	24.3	226.6	77.8
Big Sky Callout 2015	287.7	738.9	165.0	1778.6	191.0
DefendJ20 2017	11.5	94.9	5.9	71.2	19.0
Sports Sponsorship					
NASCAR Sponsorship 2013	98.5	756.7	92.2	1385.7	160.2

Note:
A horse race of multiple methods. Each method was fitted 8-14 days prior to an event, then used to create a counterfactual 1-7 days before the event. The mean squared forecast error is presented for the 1-7 day placebo window. See the appendix for results fitting the models on weeks 2-3 and weeks 2-4.

Table 8: Average effect of Oath Keepers tactics using alternative years.

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

Note:
Brackets are 95% credibility/confidence intervals. Bolded and underlined are the years that the event took place. All estimates use a two week pre-treatment period.

Table 9: Two-way fixed effects analysis of economic inequality between counties in the top and bottom quartiles.

	Discounts					Cause-Related Marketing			Sports Sponsorship
	Veteran's Day 2014	Constitution Day 2017	Christmas/New Years 2017	Memorial Day 2018	Flash 2018	Bundy Ranch 2014	Big Sky 2015	DefendJ20 2017	NASCAR 2013
Panel A: Income inequality									
I(Top quartile) X I(During event)	-0.009***	-0.001**	-0.0002	-0.00003	-0.004	-0.006***	-0.00007	0.0003	0.0008
	(0.002)	(0.0006)	(0.0004)	(0.001)	(0.004)	(0.002)	(0.002)	(0.002)	(0.001)
Number of Clusters	1,566	1,566	1,566	1,566	1,566	1,566	1,566	1,566	1,566
Panel B: Median household income									
I(Top quartile) X I(During event)	-0.003	-0.0006	-0.0008**	0.0004	-0.005	0.0001	0.001	-0.004	-0.001
	(0.003)	(0.0008)	(0.0004)	(0.0009)	(0.005)	(0.002)	(0.002)	(0.003)	(0.001)
Number of Clusters	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564
Panel C: Percent Republican/Libertarian									
I(Top quartile) X I(During event)	0.006**	0.002***	0.001*	-0.0006	0.018**	0.007***	0.006**	0.0004	-0.00006
	(0.002)	(0.0008)	(0.0007)	(0.0009)	(0.008)	(0.003)	(0.003)	(0.003)	(0.002)
Number of Clusters	1,556	1,556	1,556	1,556	1,556	1,556	1,555	1,556	1,556
Panel D: Percent rural									
I(Top quartile) X I(During event)	0.006	0.001	-0.001	0.001	0.005	0.015***	0.0005	0.007	0.003
	(0.004)	(0.0009)	(0.002)	(0.002)	(0.009)	(0.005)	(0.005)	(0.006)	(0.002)
Number of Clusters	1,565	1,564	1,564	1,564	1,564	1,565	1,564	1,564	1,566
Panel E: Percent white									
I(Top quartile) X I(During event)	0.012***	-0.0005	0.0002	-0.0003	0.002	0.010***	-0.004	0.002	-0.001
	(0.004)	(0.001)	(0.001)	(0.001)	(0.005)	(0.003)	(0.003)	(0.004)	(0.002)
Number of Clusters	1,566	1,566	1,566	1,566	1,566	1,566	1,566	1,566	1,566
Std.Errors	by: county	by: county	by: county	by: county	by: county	by: county	by: county	by: county	by: county
FE: Day	X	X	X	X	X	X	X	X	X
FE: County	X	X	X	X	X	X	X	X	X
Outcome Average	0.008	0.003	0.002	0.001	0.005	0.015	0.011	0.003	0.004

Note:
* p < 0.1, ** p < 0.05, *** p < 0.01
Outcome average is the average number of Oath Keepers per 100,000 for all counties before and after the callout event. Panels refer to the county-level characteristic used to partition the counties into top and bottom quartiles. I(Top Quartile) is an indicator if a county is in the top quartile. The reference group is the bottom quartile. I(During Event) is an indicator equal to one if the day is during an event and zero if the day is before the event. The middle quartiles and days after the event are dropped from the analysis. Standard errors are clustered at the county level. All estimates are weighted by county population.